

Florida Specifier



Practical Information For Environmental Professionals

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Stormwater for reuse 5

Vero Beach will be spending approximately \$150,000 annually over the next four years to upgrade its reuse water system. One element of the system upgrade is to begin supplementing reuse source water from the WWTP with stormwater from the city's main relief canal.

Brownfield report 6

The latest annual report indicates the state's brownfield program is being used successfully by many communities across the state. According to the report, brownfield designations were up 30 percent in 2011 from the previous year.

Monitoring water use 9

The Suwannee River Water Management District is moving forward with a water use monitoring program for agricultural water users. Once implemented, the program will allow the district to monitor 75 percent of their water allocation.

Consolidated rules 10

DEP is in the process of blending the rules that have been used to assess and cleanup contaminated sites in Florida for years. The Petroleum Contamination Site Cleanup Criteria will soon be repealed and concurrently merged into a single rule along with the state dry cleaning and brownfield rules. Steve Hilfiker weighs in.

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Got a story lead?

Got an idea for a story? Like to submit a column for consideration? Fire away. And don't forget to fill us in on your organization's new people and programs, projects and technologies—anything of interest to environmental professionals in the state. Send to P.O. Box 2175, Goldenrod, FL 32733. Call us at (407) 671-7777; fax us at (407) 671-7757, or email us at info@enviro-net.com.

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Photo courtesy of Tim Twist, ARCADIS

Cleanup is underway at the former Spellman Engineering site in Orlando. The contamination, consisting primarily of trichloroethene, was detected in groundwater during the early 1990s. Shown above is the piping and vaults for the electrical resistive heating system, used to deliver the reagent across the injection well network. See story on Page 7.

New WMD budgets reflect streamlined operations, focus on core missions

By PRAKASH GANDHI

Water managers across the state are making do with less, streamlining their operations to ensure they fulfill their core missions as efficiently as possible.

At the South Florida Water Management District, 75 percent of agency revenues will be dedicated to Everglades restoration and flood control operations.

Key highlights of their fiscal year 2013 budget include \$182 million to operate and maintain South Florida's regional flood control system, including \$50 million to refurbish their extensive network of canals, levees and water control structures.

Another \$245 million will be spent to restore the Everglades ecosystem, including \$87.6 million to implement the first phases of the governor's plan to achieve ultra-low water nutrient standards.

The district is also spending \$46.3 million to construct 109,000 acre-feet of water storage and \$30 million to support Loxahatchee Watershed restoration.

Another \$5.2 million will be spent to increase water treatment capacity at Stormwater Treatment Area 1W. In addition, \$11.4 million will go to supporting the Kissimmee River restoration and Comprehensive Everglades Restoration Plan projects.

The district has also earmarked \$8.7 million to expand water storage in the northern Everglades through public-private

partnerships, and \$3.6 million to implement water quality treatment and storage projects in the Caloosahatchee watershed.

Elsewhere, the Southwest Florida Water Management District has about \$3 million less in property tax revenue in its current budget. Executive Director Blake Guillory said the district is implementing new business processes to

improve operational efficiencies.

The district employs 617 full-time workers. Restructuring could affect several dozen employees in phases during the next nine months.

Most cutbacks will come from the administrative, technology support and

WMDs
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FRC 2012: Opportunities available for environmental consultants

By PRAKASH GANDHI and
BLANCHE HARDY, PG

There's a world of opportunities out there for environmental engineers and scientists. So don't narrow your business focus to your traditional geographic borders.

That was the message from Nick Alberg, PE, DEE, president and CEO of HSA Engineers & Scientists in Tampa, who kicked off the 18th Annual Florida Remediation Conference in Orlando last month.

"Explore the huge number of environmental opportunities out there," Alberg said. "Elevate your goals and think beyond your workplace and your geographic region."

Hundreds of industry professionals were on hand to hear Alberg share his insights about recent work overseas in places such as Vietnam, Ukraine and India.

Alberg, FRC conference chair, said the engineering industry has experienced a number of bumps, twists and turns over the past 35 years. Nevertheless, he said there are many opportunities for consulting firms to expand into the global marketplace.

"The global environmental market grew by four percent, even though the economy is slow," he said. "For example, in Latin America, the resources boom has created more work for environmental companies."

"This boom is spurring demand in infrastructure development, transportation and other areas," he said.

Water reuse, renewable energy and green building are among the hot button issues, Alberg said.

Another solid market is disaster response and prevention. "Natural disas-

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EPA adds Jacksonville wood treatment site to Superfund priorities list

Staff report

The U.S. Environmental Protection Agency has added the Fairfax Street Wood Treaters site in Jacksonville to its Superfund National Priorities List.

The site is a 12-acre parcel that was used between 1980–2010 by Wood Treaters LLC. The company treated large dimension lumber such as utility poles and pilings with copper-chromium-arsenate wood preservatives.

In July, 2010, Wood Treaters filed for bankruptcy and abandoned the site, leav-

ing, among other things, several aboveground tanks in poor condition. Some still contained treatment chemicals.

The Florida Department of Environmental Protection referred the site to the EPA because the owners abandoned it. The EPA initiated a Superfund emergency response and removal action intended to prevent contaminated runoff water from leaving the site.

The agency also removed water and sediment from an on-site retention pond and has removed additional sediments and soils. All tanks and piping have also been

dismantled.

The site is surrounded by densely populated residential areas, adjacent to several residences, a day care center and an elementary school. Contamination has migrated onto some of those properties. An adjacent creek, Moncrief Creek, may be contaminated and will be part of the remedial investigation.

The Fairfax Street Wood Treaters site is one of 12 recently added to the NPL and the only Florida site recently listed.

The agency noted that the sites will initially be the subject of investigations and remediation planning, and that it may be several years before funding and subsequent cleanup efforts will move forward.

When the EPA announced the 12 new NPL sites, it also listed eight proposed sites that could be added in the near future. None are in Florida.

Currently, the NPL consists of 1316 sites. There are currently 54 proposed sites including the eight recent additions.

CO2 emissions drop. In an announcement that surprised almost everyone, the EPA reported that estimated CO2 emissions in the U.S. dropped to a 20-year low in 2011.

Substitution of currently abundant natural gas for coal and petroleum is the primary reason for the dramatic reduction.

Since 2005, coal combustion generated about half of the country's electricity supply. In March, 2012, coal's contribution fell to only 34 percent, the lowest since record-keeping began 40 years ago.

Energy emissions are the source of 98 percent of the nation CO2 emissions. Natural gas combustion yields less CO2 than other fossil fuels.

In terms of mass, the U.S.' highest CO2 emissions occurred in 2007 when about six billion metric tons of the gas were released to the atmosphere as a result of energy production. 2012 predictions are for about 5.2 billion metric tons.

The U.S. currently contributes about 16 percent of the total global carbon dioxide emissions to the atmosphere, well behind China, which is the leader at 39 percent. The U.S. has reduced its level of carbon dioxide emissions to the atmosphere more than any other country, according to the International Energy Agency.

The rapid drop in CO2 emissions surprised many experts. Market forces rather than regulations or restrictions lead directly to the reduction.

In particular, hydraulic fracturing has made available huge amounts of formerly untappable shale gas. Its abundance has reduced natural gas prices by two thirds over the past several years.

The reduction brings the U.S. CO2 emissions close to the target of the 1997 Kyoto Treaty. Congress did not ratify that treaty, at least in part because the U.S. had abundant supplies of coal that could be economically substituted for what was then more expensive gas and oil.

Whether the country will be able to continue to reduce its greenhouse gas releases is open to speculation.

Fracking critics say that methane can be released in substantial amounts when new wells are initially brought into production. Methane contributes to global warming on a molar basis much more than does CO2, so the reduction in CO2 emissions and increases in methane release, if it is occurring significantly, counteract in terms of benefits affecting climate change.

Economists believe natural gas prices may begin to rise in the near future. Nevertheless it is possible that as many as 175 coal-fired power plants may be retired or converted to natural gas combustion in the next five years, according to the Renewable and Sustainable Energy Institute in Colorado.

In the best of scenarios, CO2 emissions

in the U.S. could return to 1980 levels within the next decade.

Drought expected to cut ethanol production. Reduced supplies of corn and ensuing price increases are expected to reduce ethanol production levels by 10 percent in the coming year, according to predictions made by the Food and Agricultural Policy Research Institute.

This corresponds to a decline in production from 13.8 billion gallons in 2012 to an expected 12.4 billion gallons in the coming year. Ethanol consumption is expected to decline by only 2 percent because of reserves available to meet the shortfall.

Ethanol exports will show the greatest change as a result of corn crop shortfalls. Last year, 1.1 billion gallons were exported. In the coming year, less than half that total—about 500 million gallons—is likely to be available for export.

Governors of at least eight states have asked the federal government to relax the ethanol mandate in order to free up corn for livestock production. But as of mid-October, no decision to relax the ethanol mandate for fuel production appeared likely.

\$15M to support small systems. In September, EPA announced awards totaling \$15 million to owners and operators of small drinking water and wastewater systems.

The agency said that the funding will help provide training and tools to improve small system operations and management practices, promoting sustainability and supporting EPA's mission to protect public health and the environment.

The largest single grant, \$7 million, went to the National Rural Water Association. Another \$3 million went to the Texas Engineering Extension Service. These two agencies will collaborate to provide training and technical assistance nationwide. The assistance will help small public drinking water systems maintain compliance with the Safe Drinking Water Act.

About \$2 million will be provided to the Rural Community Assistance Partnership. This group works with small publicly owned wastewater treatment systems and private well owners to address treatment and operations issues that are reducing the desired effectiveness of their operations.

Another half million dollars will go to the Rural Community Assistance Partnership to provide training and technical assistance to tribally-owned and operated public water systems.

The EPA sees assistance to small public drinking water systems and wastewater treatment plants as a significant component of its efforts under the Clean Water Act.

The annual round of EPA funding is an attempt to provide financial assistance where it is needed the most, according to the agency.

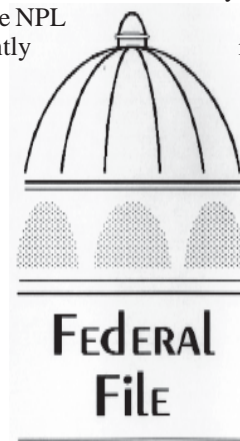
Clean air awards. Conservation and Climate Change Challenge for Schools of Broward County was recognized by the EPA when it announced its Clean Air Excellence Award.

The Challenge, operated by the Broward County Pollution Prevention, Remediation and Air Quality Division, is an education competition in the county's K-12 classrooms.

It involves teachers, students and their parents, peers and the community in reducing their carbon footprint and improving air quality. Public schools, charter schools and private schools participate.

According to EPA, the actions pledged by student participants reduced carbon dioxide emissions by an estimated 19 million pounds last year.

The EPA presents Clean Air Excellence Awards annually. Additional information is



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Plant City officials making progress with cleanups

Staff report

Plant City officials are finishing up work on the cleanup of a former fertilizer plant there.

A contractor for the city is excavating about 3,600 tons of contaminated soil at the former Gro Mor Fertilizer Distribution Center. Assessments revealed the presence of cadmium and dieldrin in shallow groundwater, among other pollutants.

The cleanup is the most expensive to date in Midtown, an 85-acre area just south of downtown that has been targeted for redevelopment.

The city had as much as \$500,000 available for the work, including \$300,000 in federal and state brownfield grants and loans of as much as \$200,000.

Two other city-owned properties in Midtown have already been cleaned up or will be completed soon.

The city's Community Redevelopment Agency has bought and demolished several buildings in Midtown including those properties where the pollution was found.

Possible cancer cluster in Miami-Dade. Residents of a Northwest Miami-Dade County neighborhood near an industrial area are concerned about eight recent cancer-related deaths and other health issues.

Residents believe the King Metal recycling plant could be connected to their illnesses and fear that pollutants are building up inside their homes and on their properties.

The Florida Department of Health is investigating the site at the request of the Miami-Dade County Commission.

Hollywood brownfield. Last year, Hollywood's City Commission designated a 31-acre site as a brownfield, allowing the city to obtain federal and state dollars to help clean it up. City officials believe the site is ideal for redevelopment.

Part of the land within the brownfield boundary now houses Hollywood's maintenance, storage and fleet departments. The site once housed an incinerator. And at one time, part of the land was used as a dump site for the ash.

There are low levels of contaminants—mainly dioxins—underground, according to assessments done by environmental regulatory agencies.

Officials believe the land, west of Interstate 95, lends itself to industrial uses, but anything from retail to residential will be considered.

Marion brownfield stalls. Further north in Marion County, there are at least a dozen brownfield sites in the area around Silver Springs. In all, there are nearly 300 parcels in the region that environmental regulators have declared in need of cleanup.

However, the county commission recently tabled a proposal to obtain a \$1 million federal grant to assess the environmental cleanup at their sites. Officials are concerned about who will pay to clean up any contamination found during the assessment efforts.

Later this year, the county commission expects to complete a plan to encourage new investment in the rundown business sector surrounding Silver Springs.

The board plans to create the county's first-ever Community Redevelopment Agency.

Developers who sign a rehabilitation agreement with the Florida Department of Environmental Protection can be relieved of further liability for environmental damage at the site, if the initial cleanup is successful.

The state program has recently become more popular. The number of locally designated brownfield sites has increased from 145 in 2006 to 312 today.

Impacts from sea level rise. Canaveral National Seashore could be submerged under ocean water by the end of the century if greenhouse gases are not signifi-

cantly cut, say two environmental groups.

The organizations looked at potential global warming impacts to Canaveral and six other national seashores. In five of the seven seashores studied, at least half the land would be swamped by an accelerating rate of sea level rise the groups say could top five feet by the end of the century.

The Natural Resources Defense Council and Rocky Mountain Climate Organization conducted the study.

A map included in the report illustrating potential changes shows almost all of Canaveral Seashore and Merritt Island National Wildlife Refuge at just one meter above sea level.

Only thin strips of Canaveral Seashore lands are higher than one meter. In some places, the 24-mile barrier island is no more than two yards wide.

Unlike many barrier islands that have both primary and secondary rows of dunes to guard from storm surges and overwash, Canaveral has just a single dune system.

Geological forces are causing land along the east coast of the country to sink at the same time that the sea level is on the

rise.

The report's authors want stricter emission limits placed on power plants, especially coal-fired plants, and say carbon dioxide emissions must be cut by 50 percent by mid-century to save the seashores from severe erosion.

Citrus approves septage spreading.

The Citrus County Planning and Development Commission has tentatively approved a conditional use request to allow land application of treated domestic and sanitary waste by Mike Scott Plumbing on 12 acres of pasture land in Inverness.

Nine residents opposed the creation of the sanitary waste spreading site. Residents said the permit request did not specify the amount to be spread and were concerned that neighborhood property values would be impacted.

They were also concerned about the impact on the environment and the Floridan Aquifer.

The commission told residents that al-

Florida Notes

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Costs of rebuilding Miami-Dade water, wastewater systems on the rise

Staff report

The rebuilding of 13,000 miles of Miami-Dade County water-wastewater pipelines and treatment facilities could cost more than \$12 billion over the next 15 years.

That was the price tag presented by Miami-Dade County Water & Sewer Department Director John Renfrow at a recent meeting of the county's Infrastructure and Land Use Committee.

The county is currently working on system repairs to satisfy several federal man-

dates to remain in compliance with the federal Clean Water Act. That work will cost \$1.4 billion.

The 15-year, \$12-billion plan calls for across-the-board fixes to water and sewer lines countywide. The plan, spelled out in a 266-page report, calls for \$5 billion in future bonds and the remainder in bond money already voted on to cover the balance of the cost.

The rest will come from water bills, grants and other revenue sources such as connection fees.

County officials noted that utility bills

in Miami-Dade are now low compared to other areas. But Renfrow warned that county residents can expect their water bills to double or triple as water-sewer system debt rises over the next 15 years.

While no water rate increases are set for the fiscal year that began on Oct. 1, there is a nine percent hike planned for the 2013-14 fiscal year and six percent for the three subsequent fiscal years.

Bay County appeals permit denial. An administrative judge's advisory that a wellfield permit in Bay County should be denied has prompted an appeal by county officials.

In July, Judge David Maloney said Bay County failed to provide assurances that "natural systems would not be significantly affected" by the proposed well field.

County officials contend that Judge Maloney misapplied the burden of proof in making the decision. They are asking the judge to reconsider his decision. If he does so, additional hearings would be required.

In October, 2010, the Northwest Florida Water Management District issued a notice of intent to grant Bay County's permit for 10 water wells as a backup water supply to Deer Point Lake.

The district's notice was appealed by adjacent Washington County, the Knight Family Trust—a large area landowner—and two other residents. Their appeal centered on concerns for the sensitive Sand Hills ecosystem.

Bay County had proposed a compromise by reducing the number of wells requested from 10 to eight and cutting the daily withdrawals from five million gallons a day to two mgd.

The NFWMD Governing Board will make the final decision on the permit. They don't have to follow Judge Maloney's recommendation, but Assistant County Manager Dan Shaw conceded that they usually agree with a judge's recommendation.

Sebastian, WMD seek to resolve park problems. Officials with the city of Sebastian and the St. Johns River Water Management District have been meeting since August to resolve maintenance and operations problems at a city stormwater park.

Pumps that operate the 166-acre Sebastian Storm Water Park system are malfunctioning. And the electricity costs to oper-

ate them are higher than expected.

The \$2.5 million stormwater park was a joint project of the WMD and the city. The water district operated it for a year after construction and then turned it over to the city to operate and maintain.

Funding for the park came via a grant from the U.S. Environmental Protection Agency, the water management district and the city.

The park includes a series of wetlands, ponds and canals that collect water pumped from nearby Collier Creek. The creek collects stormwater runoff from Sebastian Highlands. After the pollutants are removed, the water is pumped back into the creek that connects to St. Sebastian River and the Indian River Lagoon.

Sebastian Public Works Director Jerry Converse noted as early as April that the

system pumps were not functioning properly. He said the pumps did not turn on automatically and had to be operated manually.

Currently, the city spends \$2,000 a month on electricity to run the pumps for about 30 minutes a day.

Polk stormwater fee shelved. Amid public protests, the Polk County Commission opted to shelve a first-ever stormwater utility fee.

With over 100 residents attending the public hearing, the commission that previously approved the new fee reversed itself. The proposal would have raised \$9.5 million annually for county stormwater upgrades via a base fee of \$54 a year per household.

The commission first approved the stormwater fee in order to comply with federal water pollution regulations. Those regulations require monitoring and treatment of stormwater runoff to prevent the further decline of water quality in lakes and rivers.

Most of the opposition to the fee was based on the cost to taxpayers.

Alligator Creek restoration. The Suwannee River Water Management District has joined forces with the Florida Fish and Wildlife Conservation Commission and the city of Starke to restore a portion of Alligator Creek in Bradford County.

Part of the project calls for the construction of a sediment control structure in the creek. It will prevent sediment from entering Lake Rowell and will help restore wetlands and the flood plain by redirecting water into remnant creek channels on property owned by the city of Starke.

Starke officials have agreed to the location of the sediment control structure on city property. They will also operate and control it after project completion.

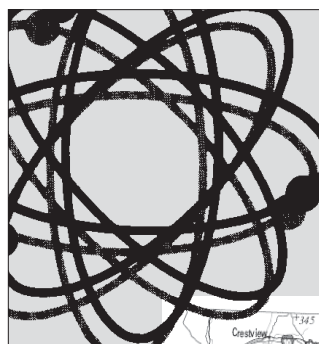
The city is contributing \$25,000 and FWC is contributing \$250,000 to the restoration effort. The SRWMD plans to contribute \$325,000 toward the work, pending approval of their 2012-2013 budget.

Beverly Beach water system upgrade. Flagler County officials broke ground in September on a \$5.8 million project to improve the water system for the town of Beverly Beach.


A new water and wastewater system is being built to replace the private utility plant the county bought in 2004. Due to be completed by year's end, the new system will connect to Palm Coast's system and provide water to Beverly Beach and nearby unincorporated areas.

Money for the project came from a U.S. Department of Agriculture loan and a grant from the Florida Department of Environmental Protection. Flagler officials said a portion of the money will repay the county for the 2004 purchase of the old plant.

WATCH _____
Continued on Page 5




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Vero Beach reuse system to capture stormwater as supplemental source

By ROY LAUGHLIN

The city of Vero Beach will be spending approximately \$150,000 annually over the next four years to upgrade its reuse water system.

The upgrade consists of two components. The first is to begin supplementing reuse water with stormwater from Vero Beach's main relief canal along 43rd Avenue. The second is to add additional customers close to existing reuse water mains, but not currently signed up for the service.

The first part of the project, augmenting the reuse system's capacity, will ben-

efit all reuse water customers. It will increase the amount of water available and lower its price.

In the past, as demand grew with development, the city augmented the reuse system with potable water, paying wholesale prices for it. That increased the reuse water price to nearly two dollars per thousand gallons.

When the reuse system is replumbed to take stormwater from the main relief canal, reuse water rates will go down initially to \$0.67 per thousand gallons, and then may rise to \$0.88 per thousand gallons, said Robert Bolton, director of the Vero Beach

Water and Sewer Department.

Bolton explained that Vero Beach has a geographically built-out reuse system that was designed in the 1990s. At that time, the primary goal was to divert water from the Indian River Lagoon by providing it to anyone for irrigation use.

In Vero Beach, most of the reuse water was pumped to the barrier island. Private residential communities and other users buy it in bulk quantities. One large development, for example, takes about a million gallons per day.

Bolton said that relying only on the wastewater treatment plant as a source

made managing supply difficult. Water use in Vero Beach is markedly seasonal. During the winter months, tourists dramatically expand flow to the city's wastewater treatment plant. This is at a time during the annual demand cycle when use of irrigation water is lowest.

Conversely, during the spring and early summer, wastewater treatment plant effluent volume is low when the demand for irrigation water is greatest.

In the past, the utility supplemented reuse water with potable water. That was expensive and failed to completely support water conservation efforts for potable water. Switching to stormwater as a source will ensure a larger supply of water throughout the year and will substantially lower costs.

Bolton noted that water taken from the canal for irrigation will help reduce nitrogen and phosphorus loading to the Indian River Lagoon.

Bolton said that when the reuse system was envisioned in the early 1990s, its primary purpose was to end wastewater releases to the Indian River Lagoon. Demand

NFWFMD Executive Director Jon Steverson said that over the last 26 years, Cleckley has developed one of the most active restoration and recreational programs in the South.

During his tenure, Cleckley helped acquire 122,000 acres key to the protection and preservation of Florida water resources. He oversees 212,371 acres of district-owned property and over 12,400 acres of conservation easements.

Giesy-Griffin named to WMD board. Gov. Rick Scott named Wendy Giesy-Grif-

fin of Lithia to the governing board of the Southwest Florida Water Management District.

Giesy-Griffin, 60, is a retired environmental consultant who worked with Metis Environmental Services beginning in 1996. Prior to that, she worked as an environmental administrator with the Florida Department of Transportation, and an environmental technician and specialist with the Hillsborough County Environmental Protection Commission.

The appointment requires State Senate confirmation.

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WATCH

From Page 4

New plant in Lake Hamilton. The town of Lake Hamilton's new \$4 million drinking water plant went on-line in September, clearing the way for the phasing out of an antiquated plant built in the 1950s and water tower built in the 1920s.

The new plant features a 400,000-gallon storage tank, two new wells, an advanced hydrogen sulfide removal system, an indoor high-service pump room, security cameras and other technologies to produce quality drinking water.

The project was funded by a \$2.4 million U.S. Department of Agriculture loan and a \$923,800 grant from the state Department of Environmental Protection. In addition, the DEP funded 65 percent of the \$836,000 hydrogen sulfide removal system with the town picking up the balance.

The city will repay the USDA loan with a 2012 payment of \$98,000 and \$104,000 annually after that over a 38-year period.

Steinhatchee Rise restoration. The Suwannee River Water Management District will restore their Steinhatchee Rise property in Dixie County by dispersing over eight million gallons of water to rehydrate about 50 acres of wetlands.

When complete, the project will return the property to its natural condition storing a half-foot of water over the parcel.

The dispersed water storage project will mimic natural conditions to retain rainfall. It will slow the excessive flow of water from an upstream floodplain through a seven-mile long ditch that eventually discharges into the Steinhatchee River.

The district plans to install ditch blocks on the last 4,000 feet of the ditch nearest the river. This will back up much of the excess water, releasing it over the banks into the adjacent wetlands.

This project is similar to the SRWMD restoration work at Mallory Swamp and Steinhatchee Springs in the south canal, both designed to hold more water on district land and slow peak flow discharges.

Aqua Utility to sell Florida holdings. Aqua Utility, operator of several water and sewer utility operations in Florida, has agreed to sell their holdings to the Florida Governmental Utility Authority.

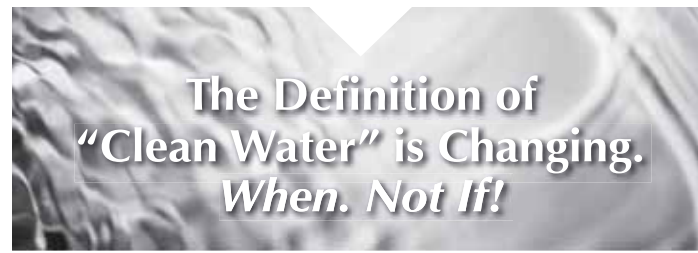
The company has dealt with complaints over the years about excessive rate hikes, questionable water quality and customer service.

A statement from Food & Water Watch, an advocacy group, hailed the move. Executive Director Wenonah Hunter said it was only the first step in regaining public control of water and sewer systems throughout the state.

Food and Water Watch strongly opposes the privatization of water and sewer systems.

NFWFMD land manager praised. William O. "Bill" Cleckley, the Northwest Florida Water Management District's director of land management and acquisition, has been recognized by Audubon Florida for his achievements managing public forests, lakes, springs and wetlands in northwest Florida.

The Sustainable Forestry Award is presented at the Florida Forestry Association's annual meeting by Audubon Florida, honoring foresters for protecting the state's water and wildlife.



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Statewide brownfield activity shows increase in designations, interest levels

By MELORA GRATAN

While participating in the state's Brownfields Redevelopment Program may not be the perfect way to revitalize every contaminated site, a recent annual report shows it is being used successfully by many communities across the state.

According to the report, brownfield designations were up 30 percent in 2011 from the previous year. From July 2011 to June 2012, 26 municipalities and county governments approved resolutions that designated 33 brownfield areas, bringing the state total up to 312.

During the same 2011-12 time period, eight brownfield site rehabilitation agreements were executed and seven site rehabilitation completion orders were issued, bringing those respective program totals up to 167 and 54 since the program began in 1997.

While BSRAs for calendar year 2011 declined slightly from 13 in 2010 to 12, the total for calendar year 2012 should exceed that amount.

"You can sign a BSRA until Dec. 31 and claim tax benefits for the entire year,

so there is often a flurry of activity between Thanksgiving and Christmas," said Kim Walker, brownfields liaison for the state Department of Environmental Protection.

Even with only half of the year included for review, 2012 is already surpassing the previous year in terms of capital investment and projected jobs.

Capital investment for 2012 is already more than \$388 million with 10,330 in projected new direct and indirect jobs compared to last year's investment of more than \$204 million and 8,084 jobs.

To Walker, these numbers translate to a program that many local governments and developers are finding useful. Kim recalls how poor economic conditions reflected on program activity in 2009, with only 11 areas designated.

"Anecdotally, I am getting a lot more phone calls," she said. "My sense is that, slowly, things are improving economically. It's subtle, but I've noticed."

Another positive economic aspect for the program is more money coming in over the past few years.

Since July 2011, the Legislature has increased annual authorizations for Voluntary Cleanup Tax Credits from \$2 million to \$5 million. However, it may take some time for this extra funding to catch up to the backlog of approved, unissued credit awards that has built up since 2007.

The agency received 52 VCTC applications during the CY 2011 and approved \$6,230,166 in tax credits. Of this amount, \$5,137,206 was for 42 brownfield sites.

The agency expects the number of applications to be similar in 2012. As of this June, there remained a backlog of almost \$13.6 million.

The brownfield report estimated that the increased funding amount will allow all presently approved tax credits to be issued by July of 2014. In other words, applicants will likely have to wait another two and a half years for their tax credits.

In addition to providing charts and statistics for annual program performance, the report included a variety of examples of successful redevelopment efforts completed under the program.

Featured on the cover of the report, a 56-acre piece of land in Midtown Miami that was laden with arsenic and petroleum in the soil and groundwater was transformed into 600,000 square feet of retail space, 3,000 condo lofts and 350 apartments.

The project used some of the new buildings and structures as engineering controls to prevent physical contact with contamination that was not removed. It has been the recipient of several awards including the U.S. Environmental Protection Agency's Region 4 Phoenix Award for brownfield development in 2009.

Walker also singled out projects in Tallahassee and Melbourne as especially noteworthy.

A \$10 million Marriott Residence Inn now stands on a piece of property that once contained pollution from a bulk petroleum storage facility in Tallahassee.

"Near the civic center and university, the hotel is a visible example of the city's revitalization goal," said Walker. The property is along the Gaines Street Corridor, a historically industrial area near the heart of downtown.

In Melbourne, a site called Casbah Properties turned a rundown former gas station into a sought out dining destination. During the remediation, nine storage tanks were removed from below and above ground without any additional impact to the property's soil or groundwater.

"The project turned the old station apron into open restaurant seating in a popular, quaint area," she said.

The report also summarized federal brownfield efforts such as a new multi-purpose grant that awards monies for assessment and cleanup together.

Tampa was one of 10 national recipients selected to receive \$400,000 for property on Nebraska Avenue that had petroleum contamination impacts.

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Orlando cleanup boasts unique agreement, multiple-treatment approach to remediation effort

By MELORA GRATTAN

From a unique cleanup agreement to an especially aggressive, multiple-treatment remedial approach, federal regulators have a number of reasons to point to the cleanup of a contaminated site near downtown Orlando as a model for the future.

The contamination, primarily consisting of trichloroethene used to clean electronic components for the National Aeronautics and Space Administration during the 1960s, was detected in groundwater during the early 1990s and later revealed to be part of a plume extending to about 40 acres.

One of the differences with this cleanup compared to many TCE-contaminated sites in EPA's Superfund program is how the project is being handled. Portions of the property, situated near a business district considered to be a gateway to downtown, are owned by the city of Orlando and the Orlando Utilities Commission.

In addition, a private school has leased some of the property for use as a sports and recreation complex.

Since there was no responsible party to fund the \$12.9 cleanup, the city volunteered to tackle the project in order to ensure a speedy turnaround and keep it off the Superfund National Priorities List.

As a result, EPA issued their first-ever contiguous property owner agreement to the city in 2008. Although the city agreed to implement the cleanup, under the agreement it is not liable for existing contamination. The agreement included a release and waiver of any potential Superfund liens.

The approach is performance-based. The city entered into an agreement with ARCADIS for the cleanup work. Once the project has advanced to the point of monitoring, the city will take over and conduct the monitoring and natural attenuation aspects, said William C. Denman, PE, remedial project manager for the U.S. Environmental Protection Agency Region 4.

EPA is the lead agency overseeing the cleanup of the property known as the former Spellman Engineering site.

"This was the preference of the community—to keep the site off the Superfund (list)," Denman said. "It saved the EPA cleanup fund about \$12.9 million. We would certainly entertain this for other sites and hope it will be used as a model."

Another reason the Spellman cleanup could be used as an example for future projects is its combination of three remediation methods—one of which is rare at Superfund sites, Denman said.

The method is known as electrical resistive heating, or ERH, and was added to the original remediation after field work in 2009 detected volatile organic compounds in the groundwater in dense non-aqueous phase liquid form with the highest levels of VOCs present in finer grain sediments in the source area.

The tighter grain sediments and presence of DNAPL prompted ARCADIS to recommend ERH as a treatment component that would be more effective under those

Deadline approaching for conservation assistance

Staff report

The USDA-Natural Resources Conservation Service in Florida is encouraging landowners, farmers and producers to visit their local NRCS office now to apply for conservation technical assistance and possible cost-share opportunities.

The application process for 2008 Farm Bill conservation programs is continuous, but funding selections are typically made once a year.

The Florida NRCS application cutoff date for consideration for federal fiscal year 2013 funds is Nov. 16, 2012.

Information on NRCS, conservation assistance and programs is available at www.fl.nrcs.usda.gov or at your local USDA - NRCS office.

circumstances, according to an EPA project fact sheet.

Denman said the treatment is extremely effective for site conditions such as these. However, it isn't used often due to its cost of implementation including high electricity requirements.

"This is a more aggressive way to address source areas. I'm very interested in seeing how effective and costly it is, and to have an example to point to in the future," Denman said.

This is a good application for the technology, said John Perella, PE, senior engineer and engineer of record for ARCADIS on the Spellman project.

He estimated that ERH has been used at more than 100 sites across the country, but is not common in comparison to other treatment methods.

At the Spellman site, ERH will literally heat up the source area where the highest pollutant concentrations exist, ranging from 1 mg/L to 280 mg/L, and then extract the contaminants from gases produced.

The system, which includes 44 extraction wells, should be operating at full scale by late October and continue to run for about six to eight months.

The system starts with heaters that carry and control the electricity to soil in the treatment zone, Perella explained. Once the temperatures reach the boiling point of the TCE, the contaminants will boil off as vapor which is then captured by maintaining a vacuum.

"The big thing with this treatment is cooling it down and having air/water separators and heat exchangers that drop the temperature of the vapor coming through," Perella said. "We go from 180 degrees F and 100 percent humidity down to 100 degrees F and 50 percent humidity."

One of the other technologies being used at the site—an in-situ bioremediation method known as enhanced reductive dechlorination—will be used for the area where concentrations range from 1 mg/L to 200 mg/L.

A carbon source will be injected—in this case, a two-percent solution of molasses and water. There have already been several injections, with one more planned for this year and two planned for 2013.

The hardware for this treatment method includes 118 injection wells, piping and 28 groundwater monitoring wells. Constructing the system was challenging, particularly in the school recreation fields.

"We built them completely below grade with real field turf over the top," Perella said. "Access can be challenging. But the school is happy with it and they have been

easy to work with."

Finally, the smaller area with the lowest concentrations of 1 mg/L to 80 mg/L is being addressed with surfactant enhanced in-situ chemical oxidation.

Here, a six-percent solution of sodium persulfate is injected into a network of 16 injection wells to produce a sulfate radical that oxidizes the TCE and other contaminants.

One of these injections was completed in November 2011 and another one is planned for late 2012.

The company said that preliminary results of the ERD and ISCO injections are positive. After a year of ERD injections, effective distribution of total organic carbon has been achieved and reductive dechlorination of TCE to cis-1,2-DCE has been observed in numerous wells.

After the one ISCO injection event, persulfate was effectively distributed to the target area and concentrations of TCE have decreased.

"The different concentrations really drove what technology we thought was appropriate. Where it was located was a big consideration as well," Perella said.



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SRWMD to monitor use of ground, surface waters by ag operations

By **BLANCHE HARDY, PG**

The Suwannee River Water Management District Governing Board voted to move forward with a water use monitoring rule and assistance for associated agricultural water users during their September meeting.

Once implemented, the program will allow the district to monitor 75 percent of the water allocation within the district.

"Monitoring and reporting will be required for new water users, renewed permits and modifications of permits proposing new withdrawals from each well with an inside diameter eight inches or greater at land surface for groundwater users," said Vanessa Fultz, the district's communications/creative services specialist.

For surface water users, similar actions will be required for new water users, renewed permits and modifications of permits proposing new withdrawals from each surface water withdrawal point that has an outside diameter of six inches or greater.

The governing board's actions are consistent with the state Department of Environmental Protection's "CUPcon" effort to improve statewide consistency in the Consumptive/Water Use Permitting Programs implemented by the water management districts.

DEP initiated CUPcon in the spring of 2011 to craft regulations designed to govern water use permit applicants equitably on a state rather than regional basis, provide consistent protection of the environment, streamline the permitting process, and provide incentives encouraging the protection and conservation of water resources.

In addition to facilitating DEP's statewide goals, Fultz emphasized the value of the anticipated monitoring reports within the district.

"The critical need for the data lies in groundwater modeling," she said. "The district has most of the components needed for modeling hydrologic response: aquifer levels, river levels and flows, spring flows, rainfall and evapotranspiration. Rainfall is what goes into the system.

"Flows, in particular spring flows and river flows during times of low water, and evapotranspiration are the outputs we have. But we are missing an important one—what gets taken out of the groundwater before reaching the springs and rivers. Knowing how much water is removed from the system by pumping is just as important as knowing spring and river flows."

Agricultural operations hold the largest number of water use permits within the

district.

To assist in complying with the new rule, the district and the agricultural community collaborated to develop incentives that encourage farmers to place the monitoring systems in service prior to the final enactment of the new rule.

"The permittee may choose a standardized SRWMD automated monitoring system to fulfill the required monitoring," said Fultz. "The standardized system establishes a process for providing district assistance for estimating and reporting agricultural water use through the use of electrical consumption data. This methodology is considered a convenient and unobtrusive alternative to recording, compiling and transmitting data to the district."

In most cases, data will be received by the district as files uploaded to an FTP site, either from a field logger or from electric utilities with the permission of the permit holder. District software will then import the raw data into internal databases.

In order to close the data gap, a five- to 10-year permit extension is also being provided as an incentive for those permittees that voluntarily choose to implement monitoring before they are required to.

A workshop on the proposed changes was held on Oct. 11. District staff is currently evaluating comments received as a result of the workshop. If no changes are made to the proposed rule language, the district anticipates that adoption of the rule could occur, at the earliest, in December.

SFWMD steps up inventory of land holdings after audit

By **DAN MILLOTT**

A recent audit by the South Florida Water Management District's inspector general called into question the district's diligence in detailing their inventory of 1.4 million acres of district-owned land.

The audit, released in September, followed questions from the state, the media and the district's inspector general about practices used to purchase and manage lands the district used for restoration, flood control and water storage projects.

In January of 2011, Gov. Rick Scott directed the state Department of Environmental Protection to conduct reviews of the land holdings in each of the five water management districts.

Randy Smith, spokesperson for the SFWMD, said they have been a little slower than the other four districts in compiling their property inventory. "Other districts are a little ahead of us at this point, but our inventory will be cataloged in the next 18 months," he said.

The St. Johns River Water Management District, for example, has already cataloged and made recommendations to their governing board on all of their properties. It should be noted that the St. Johns district holds 600,000 acres of land as opposed to the 1.4 million acres held by the SFWMD.

The audit noted that decisions to declare sites as "surplus" were based on undocumented discussions among staff. Inspector General Timothy Biernes wrote that relying on personal knowledge and discussions by staff to justify selling or keeping land "does not ensure that all potential surplus lands will be identified."

The lack of documentation creates a long term problem because staffers move to other jobs or retire.

The audit noted that just 7.85 of the 2,930 acres approved as surplus since June, 2010, have been sold. It also noted that land approved for sale did not show up on the district website contrary to policy.

Gabe Margasak, a spokesperson for the district, said the audit is not an investigation. He called it a management tool pro-

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FRC
From Page 1

ters have increased over the past ten years and have become more destructive.”

Albergo showed some slides of environmental contamination in other continents, most notably in Asia and Africa. In many cases, children are the victims of widespread pollution that has become interwoven with poverty and disease, he said.

The challenge of cleaning up areas where pollution of soil and groundwater are accepted as a fact of life may seem tough, he said. But engineers, scientists and other environmental professionals can make a difference.

“We are not in the business of changing the world, but don’t lose sight of our ability to change people’s lives,” Albergo said. “Our work does matter. Don’t impose limitations on what you can achieve.”

During the luncheon on the first day of the conference, the importance of U.S. shale gas production was highlighted by Chuck Whisman, PE, chief technical officer for Groundwater & Environmental Services Inc. in Exton, PA.

U.S. shale gas production is projected to increase from 23 percent of total U.S. gas production in 2010 to 49 percent by 2035. Right now, America has only four percent of the global population, but consumes more than a fifth of the global oil.

As demand has grown, so has the need to import oil from overseas. In 1970, the country imported 25 percent of its oil. Last year, it was 60 percent, Whisman said.

Total output from shale formations in the continental U.S. averaged 25.58 billion cubic feet a day in May 2012, an increase of 24 percent in a single year.

“Natural gas is a clean, abundant and versatile resource,” Whisman said. “There has been a growth of shale gas in the natural gas market. Shale gas is definitely a big player in our future.”

Whisman said there are thousands of new wells that could be tapped. But there are not enough pipelines or storage facilities to handle it.

News from FRC exhibitors

More than 90 companies exhibited or sponsored events at FRC 2012, showcasing an impressive array of technologies, tools and trade firsts with representatives of every niche in the cleanup industry. There was no shortage of news from them.

Golder Associates is consolidating resources in Florida to build more efficient and cost-effective work teams under their new axiom, “One Golder, one Florida.”

American Compliance Technologies is expanding its regional offices in Florida while simultaneously diversifying services to take on larger projects.

Clean Harbors is also expanding and developing new services in their Bartow office for statewide implementation.

Clark Environmental’s thermal treatment facility announced a Florida industry first—DEP approval to treat liquid biofuel at their facility.

Clean Earth recently purchased and has refurbished the former KleenSoil treatment facility in Moore Haven.

The FGS Group is utilizing its familiarity with the state’s OCULUS document management system to assist clients owning multiple or complex facilities with developing portfolios and estate management plans assuring continuity of sound site management into the next generation.

ETEC LLC has a newly operational enhanced free product recovery mobile unit for collecting free phase gas and diesel.

Carbonair Environmental Systems recently launched several newly fabricated 20,000 pound trailer-mounted mobile carbon filtration systems.

Outside the convention center, Fruits & Associates showcased its truck-mounted multi-phase extraction incinerator capable of treating gas vapors, product and water contaminated with both chlorinated and non-chlorinated hydrocarbons allowing site managers to address the sustainability goal of not shipping contaminants from one place to another.

GES’s Max-Ox Technology Group is fielding an innovative, proprietary aggressive remediation system.

3Tier Technologies is offering contami-

nant-specific, non-chemical microbial-based remediation packages for hydrocarbon in soil and wastewater.

Enviro-Equipment recently completed manufacture of the patent-pending Clean-Inject™ Remediation System that injects an activated carbon-water slurry for in-situ remediation of petroleum contaminants.

FMC’s proprietary EHC®-L Liquid ISCR, a liquid variant of FMC’s EHC® ISCR Reagent that is specially designed for injection via existing wells or hydraulic injection networks, is now a treatment delivery option.

Carbon Service and Equipment Company Co. has brought on-line an exclusive University of Wisconsin-developed technology utilizing in-situ Photoelectrocatalytic Oxidation capable of destroying a wide variety of microbial contaminants and chemical pollutants in a chemical-free process.

CL Solutions continues to perfect blending for recalcitrant and exotic compounds to develop site-specific solutions for contaminants such as perchlorate, pesticides and 1,4-dioxane.

U.S. Peroxide has implemented a total chemical management program for in-situ and ex-situ site remediation.

On the laboratory services front, ESC Lab Sciences announced a ninety to ninety six percent reduction in the water sample volume necessary to perform PAH, SVOC, pesticides and PCB analysis, offering project cost savings through reduced shipping weight, time and the use of much less solvent in sample processing.

Advanced Environmental Laboratories is now offering Level IV CLP reporting. They have received DoD certification and are the first lab to gain approval from DEP for analysis of 1,4-dioxane by the recommended EPA 522 method.

Flowers Chemical Labs is expanding services in the municipal sector, particularly in the area of small laboratory assistance.

Sunvalley Solutions displayed an interesting array of sleek field sampling and test equipment including a portable analyzer for heavy metals in soil capable of producing results in five minutes.

There is also news from drilling and direct push technology providers. ZEBRA Environmental has expanded, opening a new full-service office in Orlando.

Custom Drilling Services recently placed in service a new Geoprobe outfitted with an auto hammer and tool safety cage to comply with their stringent site and personnel safety standards.

Enviroprobe Service demonstrated two remote power units capable of sampling to 35-40 feet below grade under good conditions and, if necessary, up to a 30 degree angle in as small as a three foot by nine foot space.

FRC participants contribute \$20K to charity

Staff report

Soil and groundwater cleanup professionals stepped up in a big way in support of Orlando-based Kids Beating Cancer at the 2012 Florida Remediation Conference and Charity Golf Tournament in Orlando.

The number of participants in this year’s golf outing increased dramatically from last year to 127 players and over 40 sponsoring organizations. Going into play, an estimated \$12,000 in proceeds had been reached. An additional \$4,000+ was collected at the tournament through the sale of mulligans and door prize tickets, and the

auctioning of donated prizes.

The final push came at FRC’s Day Two luncheon. After several additional donations from the employees at Advanced Environmental Laboratories and Encotech earlier in the day and the auctioning of four Zach Brown Band tickets, Luncheon Sponsor Chuck Ged, president of AEL in Jacksonville, stepped to the microphone and announced that he would donate the additional dollars needed to move the total proceeds bar up to \$20,000.

CHARITY
Continued on Page 11



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Drug disposal:

Another area in which we need to think, act in green, sustainable ways

By LAURA GIMPELSON, PE

Having a green and sustainable remedial action plan is not just using in-situ remediation processes or installing solar panels to power motors. Green remediation is making everyday choices that minimize waste and the transfer of contaminants while preserving our grandchildren's future.

One step that takes only a few minutes but has a large potential to prevent future problems is the safe disposal of prescription and non-prescription drugs. The old motto "Out of sight, out of mine" used to work for disposing of expired/excess over-the-counter and prescription drugs. This motto caused agencies such as the U.S. Environmental Protection Agency, National Sanitation Foundation and Center for Disease Control and Prevention to recommend flushing unused or unwanted drugs down the toilet or sink.

But trace amounts of the active ingredients of various drugs such as antibiotics, endocrine disruptors and codeine have started turning up in our soil and surface waters, including even remote areas in our national parks and wild-life refuges.

Now, dumping drugs down the drain is no longer considered safe or green, and new disposal options are recommended.

The preferred option is to return unused or unwanted prescription drugs to the pharmacy that filled your prescription. Pharmacies in store such as Publix, CVS, Sweet Bay, Target and others are allowing customers to return excess drugs in their original containers that were purchased from the store.

If you cannot return the drugs to the supplier or want to get rid of over-the-counter drugs, the next best option takes advantage of the "National Prescription Drug Take Back Day" events. Twice a year—usually on the last Saturday in April and September—the U.S. Drug Enforcement Administration, with assistance from local police and sheriff departments, collects unwanted or expired drugs at various locations throughout the country.

So far, about 200 tons of properly packaged expired and unwanted over-the-counter and prescription drugs have been collected at each of the four events held. Fu-

ture dates and local drop off points will be posted at www.deadiversion.usdoj.gov/drug_disposal/takeback/index.html.

Due to the success of these national events, many local police departments are holding more frequent collection events for over-the-counter and non-narcotic drugs. Several are even allowing the public to drop off properly packaged drugs any time their main office is open.

To participate in the local and national "Take Back Days," collect all the drugs in project and office first aid kits and empty desks including the pills, creams and patches stuffed in the back of a drawer or on the shelves in the storage rooms.

Separate the drugs into two groups: Keep and Toss. Examine the containers of the drugs you found for expiration dates, container damage or rotten egg, vinegary or other odors.

Pills in their original undamaged containers with no objectionable odors or signs of damage and within one year of their expiration date can be kept. Otherwise, place the pills in the toss pile and replace as needed.

Opened containers of liquids and creams must be tossed especially if the expiration date has passed. These drugs are like milk or bread, especially antibiotics, anti-itch creams and skin coolers for burns. Expiration dates indicate when the liquid form of the drug loses its effectiveness and taking the drug after that date may cause more harm than not taking it.

Before packaging the drugs for drop off at the local collection point, remove all personal information from the labels on the containers. Then with the pills, powders or creams still in their original container, tape shut the container before placing it in a zip locked plastic bag. Close the zip lock of the plastic bag and take it the local collection point listed on the DEA website.

The September 2012 collection points included local hospitals, grocery stores and community centers as well local police and sheriff's offices.

Liquid drugs must be solidified before they can be placed in the collection bin. Mix the liquid drug with coffee grounds, kitty litter, potting soil or any other absorbent that will create an uneatable clump. If possible, pour a little of the absorbent into the original container, tightly

close the container and shake gently until no liquid remains.

Otherwise, pour the liquid and the absorbent into a zip lock plastic bag, seal shut and mix gently until no liquid remains. Fill the bag half full to prevent spilling the mixture as you shake the bag. Once no liquid remains in the bag, take it to the same local collection point as the solid medicines.

Local collection points and contact numbers are posted at DEA's website "National Take Back Initiative" at http://www.deadiversion.usdoj.gov/drug_disposal/takeback/. In addition, you can call 1-800-882-9539 to speak to a representative. Finally, call your local police department if it is not listed on the national list for more information about other collection events they may hold.

A third option is offered by CVS, Walgreen's, Kroger and Rite-Aide that requires paying a nominal fee (\$2.99 to \$4.99) to obtain a postage paid envelope used to mail the unused or expired prescription drugs back to a central collection point.

These postage-paid envelopes allow the pharmacy's customers to mail their unwanted/unused prescriptions to Sharp Compliance's permitted Texas facility for destruction and disposal. Controlled substances such as codeine, Roxycodone, Percocet and other narcotics are excluded from this program.

These procedures also apply to disposal of drugs in your home. Since there are more potent and varied drugs at home, proper disposal of unwanted/expired drugs is even more important to the environment.

By implementing these practices, future cleanup problems can be reduced.

Laura Gimpelson, PE, is president of LG Environmental Engineering in Orlando. She can be reached at lg_environmental@bellsouth.net.

FWF challenges Highlands mitigation bank permit

By PRAKASH GANDHI

The Florida Wildlife Federation has filed a legal challenge to a permit that state environmental officials recently issued for a wetlands mitigation bank in Clay County. FWF is calling for an administrative hearing to challenge the permit.

In August, the Florida Department of Environmental Protection approved the new permit for the Highlands Ranch Mitigation Bank despite objections from Connie Bersok, the state's top wetlands expert, that it would harm the environment.

Wetland mitigation banks allow developers and government to fill natural wetlands for construction and roadways by paying to have wetlands restored elsewhere.

The Highlands Ranch bank is a 1,575-acre project that includes the preservation and restoration of upland sandhill pine forests and various wetlands.

DEP said it is using a new performance-based pilot approach to award wetlands credits. The agency said the new approach is being used to hold mitigation bank operators more accountable by releasing credits only after environmental restoration is completed and verified to be successful.

But the FWF said that DEP doesn't have the authority to waive the financial responsibility requirement for the mitigation bank and to issue the permit. It also says that DEP's new approach is "irrelevant, immaterial and inadmissible" and should not be allowed as evidence.

The environmental group claims that DEP's management overruled staff objections and pushed the permit through as a pilot project "for which DEP has never adopted a rule and for which DEP has no authority to adopt as a rule."

Most of the credits they granted are for dry land, not wetlands which are "ecologically and scientifically unjustified as wetland mitigation credits," states the petition filed by Thomas Reese, an attorney in St. Petersburg.

"Our concern is with the scoring given to it," Reese said. "We think the way the scoring was done is inappropriate. There is going to be a wetland function loss with the way this scoring was devised."

"With this permit, we would be losing wetland function," he said. "It would set a precedent that all future mitigation banks would work this way."

DEP said that when it issued the permit in August, it was following the law and providing reasonable assurances that permit conditions would be met.

"DEP supports the validity of the alternative approach used in the processing of this application," said spokeswoman Reena O'Brien. "And we are confident that DEP followed the law and considered all requirements and reasonable assurances established in Florida Statutes."

Consolidation of state cleanup rules expected to be complete before year's end

By STEVE HILFIKER

The Florida Department of Environmental Protection is in the process of blending the rules that have been used to assess and remedy contamination on sites in Florida for many years.

The Petroleum Contamination Site Cleanup Criteria that began as Florida Administrative Code Chapter 17-70 in the 1980s will soon be repealed and concurrently merged into 62-780, along with the state dry cleaning and brown-field rules.

As published in the Sept. 7, 2012, issue of the Florida Administrative Weekly, the DEP has proposed changes to all sections of Chapter 62-780, F.A.C., Contaminated Site Cleanup Criteria, in order to merge Chapters 62-770 (Petroleum Contamination Site Cleanup Criteria), 62-782 (Drycleaning Solvent Cleanup Criteria), and 62-785 (Brownfields Cleanup Criteria Rule) into the existing Chapter 62-780, F.A.C.

Since no formal objections or comments to the proposed changes were provided to the agency, the public workshop hearing scheduled for Oct. 3, 2012, did not occur. Since then, DEP has been integrating two pages of comments provided by Florida's Joint Administrative Procedures Committee into the rule.

JAPC reviews current and proposed agency rules to verify compliance with the statutory authority upon which they are based. Following approval from the DEP secre-

tary, the draft rule is expected to make its way through the Governor's Office of Financial Accountability and Regulatory Reform before the final rule and effective date is published in the Florida Administrative Register. DEP officials are optimistic that this can be achieved within the next month or two.

The stated goal is consolidation of the four similar rules into a single chapter that addresses the criteria and processes for conducting site rehabilitation at all types of contaminated sites in Florida.

The rulemaking activity is focused on proposed procedural changes and does not propose new substantive changes to Chapter 62-780. But there are some things that site owners and their consultants should be aware of as the new rule is implemented.

A new benefit for property owners will be the application of the de minimis criteria for some petroleum discharges. Current rule 62-780.550 allows a contaminant discharge to be considered de minimis provided the impacts are removed from the soil or groundwater, typically via source removal, and cleanup target levels are achieved within 30 days of the discharge. The new 62-780.560 will enable similar remedies for certain petroleum discharges.

Besides some frustration associated with learning the new rule references, I do not think there will be any significant changes to the way contaminated sites are regulated based on this rule consolidation. The consolidation should not create too much confusion pertaining to assessment, remedial, site closure and risk management procedures.

However, there is one issue that may become more difficult to decipher.

When I first heard about the consolidation, I wondered how discharge reporting would be addressed in the rule, because the current 62-780 does not contain an immediate discharge reporting provision. The matter of discharge reporting can be complicated, and the blending of four rules may exacerbate the problem. It is also quite obviously significant to those required to report.

Next month's column will focus on this subject and provide an update on the estimated effective date of the new blended rule.

Steve Hilfiker is president of Environmental Risk Management Inc., a licensed engineering and geology firm that focuses on site assessment, remediation, forensics and risk management. He can be reached at steve@ermi.net.

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

Calendar

November

NOV. 6 – Course: Backflow Prevention Recertification Exam, Altamonte Springs, FL. Presented by the University of Florida TREEO Center. Call (352) 392-9570 or visit www.treoo.ufl.edu.

NOV. 6-14 – Course: Backflow Prevention Assembly Tester Training and Certification, Ft. Myers, FL. Presented by the University of Florida TREEO Center. Call (352) 392-9570 or visit www.treoo.ufl.edu.

NOV. 7 – Course: Asbestos Refresher: Inspector, Gainesville, FL. Presented by the University of Florida TREEO Center. Call (352) 392-9570 or visit www.treoo.ufl.edu.

NOV. 7 – Course: Asbestos Refresher: Management Planner, Gainesville, FL. Presented by the University of Florida TREEO Center. Call (352) 392-9570 or visit www.treoo.ufl.edu.

NOV. 7 – Course: Laws and Rules for Florida Engineers, Gainesville, FL. Presented by the University of Florida TREEO Center. Call (352) 392-9570 or visit www.treoo.ufl.edu.

NOV. 8 – Course: Asbestos Refresher: Contractor/Supervisor, Gainesville, FL. Presented by the University of Florida TREEO Center. Call (352) 392-9570 or visit www.treoo.ufl.edu.

NOV. 8-17 – Course: Backflow Prevention Assembly Tester Training and Certification, West Palm Beach, FL. Presented by the University of Florida TREEO Center. Call (352) 392-9570 or visit www.treoo.ufl.edu.

NOV. 9 – Seminar: Sixth Annual Ethics Seminar, Boca Raton, FL. Sponsored by The American Planning Association-Florida's Broward and Treasure Coast chapters and the Palm Beach County Planning Congress. Contact Seth Behn at (561) 640-0820 or visit www.floridaplanning.org/calendar.

NOV. 12 – Course: Backflow Prevention Recertification Review, Lake Buena Vista, FL. Presented by the University of Florida TREEO Center. Call (352) 392-9570 or visit www.treoo.ufl.edu.

NOV. 12-15 – Conference: 2012 Annual AWRA Water Resources Conference, Jacksonville, FL. Hosted by the Florida Section of the American Water Resources Association. Contact Kristin Bennett at (772) 781-3414 or visit www.awra.org.

NOV. 12-16 – Course: Backflow Prevention Assembly Tester Training and Certification, Destin, FL. Presented by the University of Florida TREEO Center. Call (352) 392-9570 or visit www.treoo.ufl.edu.

NOV. 13 – Course: Backflow Prevention Recertification Exam, Lake Buena Vista, FL. Presented by the University of Florida TREEO Center. Call (352) 392-9570 or visit www.treoo.ufl.edu.

NOV. 13-16 – Course: Wastewater Class C Certification Review, Gainesville, FL. Presented by the University of Florida TREEO Center. Call (352) 392-9570 or visit www.treoo.ufl.edu.

NOV. 14 – 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.treoo.ufl.edu.

NOV. 14 – Course: 8-Hour Training 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.treoo.ufl.edu.

NOV. 14-16 – Course: Initial Training Course for

Landfill Operators and C&D Sites - 24 Hour, Gainesville, FL. Presented by the University of Florida TREEO Center. Call (352) 392-9570 or visit www.treoo.ufl.edu.

NOV. 15 – Meeting: *Engineering News-Record* Best Projects 2012, Orlando, FL. Call 1-866-727-3820.

NOV. 15 – Meeting: Florida EHS Roundtable Environmental Meeting: Understanding Risk - Developing Opportunities, Indiantown, FL. Call (321) 543-4414 or visit www.ehsroundtable.org.

NOV. 15 – Course: Heavy Equipment Safety, Gainesville, FL. Presented by the University of Florida TREEO Center. Call (352) 392-9570 or visit www.treoo.ufl.edu.

NOV. 15 – 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.treoo.ufl.edu.

NOV. 15 – Course: Backflow Prevention Recertification Review, Gainesville, FL. Presented by the University of Florida TREEO Center. Call (352) 392-9570 or visit www.treoo.ufl.edu.

NOV. 16 – Course: Backflow Prevention Recertification Review, Venice FL. Presented by the University of Florida TREEO Center. Call (352) 392-9570 or visit www.treoo.ufl.edu.

NOV. 17 – Course: Backflow Prevention Recertification Exam, Venice FL. Presented by the University of Florida TREEO Center. Call (352) 392-9570 or visit www.treoo.ufl.edu.

NOV. 17 – Course: Backflow Prevention Recertification Review, Key West, FL. Presented by the University of Florida TREEO Center. Call (352) 392-9570 or visit www.treoo.ufl.edu.

NOV. 18 – Course: Backflow Prevention Recertification Exam, Key West, FL. Presented by the University of Florida TREEO Center. Call (352) 392-9570 or visit www.treoo.ufl.edu.

NOV. 19 – Course: Backflow Prevention Recertification Review, Destin FL. Presented by the University of Florida TREEO Center. Call (352) 392-9570 or visit www.treoo.ufl.edu.

NOV. 20 – Course: Backflow Prevention Recertification Exam, Destin FL. Presented by the University of Florida TREEO Center. Call (352) 392-9570 or visit www.treoo.ufl.edu.

NOV. 25-29 – Conference: 2012 FSAWWA Fall Conference, Orlando, FL. Presented by the Florida Section of the American Water Works Association and the Manufacturers/Associates Council. Contact Peggy Guingona at (407) 957-8448, e-mail fsawwa@gmail.com or visit www.fsawwa.org.

NOV. 30-DEC. 1 – 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.treoo.ufl.edu.

December

DEC. 1 – Course: Backflow Prevention Recertification Review, Jacksonville, FL. Presented by the University of Florida TREEO Center. Call (352) 392-9570 or visit www.treoo.ufl.edu.

DEC. 2 – Course: Backflow Prevention Recertification Exam, Jacksonville, FL. Presented by the University of Florida TREEO Center. Call (352) 392-9570 or visit www.treoo.ufl.edu.

DEC. 3 – Course: Backflow Prevention Recertification Review, Lake Buena Vista, FL. Presented by the University of Florida TREEO Center. Call (352) 392-9570 or visit www.treoo.ufl.edu.

DEC. 3 – Course: Backflow Prevention Recertification Review, Altamonte Springs, FL. Presented by the University of Florida TREEO Center. Call (352) 392-9570 or visit www.treoo.ufl.edu.

DEC. 3-6 – Course: Asbestos: Worker, Gainesville, FL. Presented by the University of Florida TREEO Center. Call (352) 392-9570.

DEC. 4 – Seminar: Innovative Operational Improvements, Tallahassee, FL. Presented by the Big Bend Chapter of the Florida Water Environment Association. Contact Tony Holley at (850) 222-3975.

DEC. 4 – Course: Backflow Prevention Recertification Exam, Altamonte Springs, FL. Presented by the University of Florida TREEO Center. Call (352) 392-9570 or visit www.treoo.ufl.edu.

DEC. 4 – Course: Backflow Prevention Recertification Exam, Lake Buena Vista, FL. Presented by the University of Florida TREEO Center. Call (352) 392-9570 or visit www.treoo.ufl.edu.

DEC. 4 – Course: Backflow Prevention Recertification Review, Fort Myers, FL. Presented by the University of Florida TREEO Center. Call (352) 392-9570 or visit www.treoo.ufl.edu.

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DEC. 4-5 – Course: Sequencing Batch Reactor Operation, Make it Work for You, Gainesville, FL. Presented by the University of Florida TREEO Center. Call (352) 392-9570 or visit www.treoo.ufl.edu.

DEC. 5 – Course: Backflow Prevention Recertification Exam, Fort Myers, FL. Presented by the University of Florida TREEO Center. Call (352) 392-9570 or visit www.treoo.ufl.edu.


DEC. 5 – Course: 4-Hour Refresher Course for Spotters at Landfills, C&D Sites and Transfer Stations, Tampa, FL. Presented by the University of Florida TREEO Center. Call (352) 392-9570 or visit www.treoo.ufl.edu.

DEC. 5 – Course: 8-Hour Training Course for Spotters at Landfills, C&D Sites and Transfer Stations, Tampa, FL. Presented by the University of Florida TREEO Center. Call (352) 392-9570 or visit www.treoo.ufl.edu.

DEC. 5-6 – Course: Initial Training Course for Transfer Station Operators and Material Recovery Facilities - 16 Hour, Tampa, FL. Presented by the University of Florida TREEO Center. Call (352) 392-9570 or visit www.treoo.ufl.edu.

DEC. 5-7 – Conference: 2012 Winter Conference of the Florida Stormwater Association, Tampa, FL. Call 1-888-221-3124 or visit www.florida-stormwater.org.

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We have started accepting 250-word abstracts on the subjects listed to the right. E-mail abstracts to Mike Eastman, FRC-South conference manager, at mreast@enviro-net.com.

Questions? E-mail the above address or call us at (407) 671-7777.

Deadline for abstracts: Feb. 15, 2013

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CHARITY

From Page 9

"We are completely blown away by the generosity of our friends and colleagues in the cleanup business," said Mike Eastman, FRC conference manager. "I was confident that we would surpass our goal of \$12K for KBC this year. But it never once entered my mind that we could get to \$20K. It says a lot about the people in this business."

Eric Brown, formerly with SWS Environmental Services and now with Tetra Tech, chaired the tournament committee again this year with help from the following committee members: Jennifer Belmore, Carbon Service and Equipment Co.; Abby Still, HSA Engineers & Scientists; Jim Cohen, SWS Environmental Services; Aaron Ben David, Accutest Labs; Shane Billings, EnviroTek; and Gail Pilgrim, PhosLab Environmental Services.

Next year's FRC charity event will benefit the Juvenile Diabetes Research Foundation, a group recommended by Diana Magierowski with Palm Beach Environmental Laboratories.

River alliance teams with SWFWMD, others on Homosassa restoration

By SUSAN TELFORD

The effort to restore the native ecological integrity of the Homosassa River in Citrus County is slowly moving forward with the help of local interest groups and the Southwest Florida Water Management District.

"This is really a great story," said Dr. Chris Anastasiou, a senior scientist in the Natural Systems and Restoration Bureau at Swiftmud.

"This grassroots effort to restore the

Homosassa River was started by a citizen because she didn't like what she saw happening. Through community involvement, it grew into the Homosassa River Alliance.

"The alliance teamed with the Citrus Task Force of the Citrus-Hernando Waterways Restoration Council and then they asked the district for help," said Anastasiou.

The Waterways Restoration Council sought the district's advice regarding the health of the river after citizens watched its plants and fish slowly disappear over time.

According to Anastasiou's study conducted last spring, the river is in bad shape and almost devoid of any aquatic vegetation. Based on the study, the council requested funding from the state Legislature to restore the river. But to date, they have not received any funding.

"We found some southern naiad, but that's the only current vegetation present," he said. "The Homosassa is still fairly diverse as far as the fish. Most are salt water, but that's what it has historically been. The fish population appears stable; it's the plants that lack diversity."

But before any restoration work can proceed, the alliance and council have a

few challenges besides funding. They have to face some harsh truths about what is causing the river to die downstream from the spring-head.

Most sources were easily recognized and removed, like leaky commercial fishing vessels. But a few unknown factors causing the deterioration of the river had to be identified.

The largest source of pollution was determined to be coming from the Old Homosassa side of the river, which does not currently have a sewer collection system.

HOMOSASSA
Continued on Page 16

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Researchers unveil a new method to measure metals in water, sand tissues

By ROY LAUGHLIN

A group of researchers in the Department of Materials Science and Engineering at the Massachusetts Institute of Technology have described a new method using coated gold nanoparticles to measure exquisitely small amounts of mercury and other metals in water and tissue samples.

The researchers demonstrated accurate and sensitive analytical performance. They noted that sensitivity of the method, which extends over 18 orders of magnitude in some cases, is unparalleled by any other analytical method currently use by environmental analysts. The MIT researches described their method in a recent article in *Nature Materials*.

They said that their method depends on creating a film on a glass slide. The film is made of gold nanoparticles coated with organic polymers that include binary mixtures of n-hexane thiol and alkanethiols terminated with 1 - 3 ethylene glycol substituents.

On a molecular scale, this produces a striped ligand structure that provides binding pockets for ions such as mercury, cadmium, zinc or other metals that are the subject of measurement.

The number of metal ions bound to nanoparticles on the glass slide is proportional to their concentration in the sample. On the coated slide, metal ions provide a conduction pathway, quantum tunnels, through the film that is proportional to the number of ions bound.

Conductivity of the film increases as the number of quantum tunnels increases and a measurement of voltage change gives an indication of the number of quantum tunnels in the nanoparticle film that result from bound ions.

The MIT research team has tested the method with several metal cations com-

monly measured in environmental samples, including methylmercury, inorganic mercury, cobalt, cadmium, lead, copper, sodium, calcium, zinc and potassium.

Some specificity exists among cations because binding coefficients to the organic ligands is not identical for all metals.

In addition to the results from method development, researchers analyzed a subsample of mosquito fish tissue, *Gambusia*, previously analyzed by U.S. Geological Survey researchers studying Everglades mercury contamination.

USGS analysis reported methylmercury concentrations in this fish tissue sample of 3.58 picomolar based on GC-MS measurement. The MIT team using their method measured 3.18 pM mercury with a range within one standard deviation of 1.62 - 8.19 pM. The authors describe this as "excellent agreement."

The research team noted that the analytical sensitivity of their method was a surprise. Similar techniques have been used before to measure binding constants between organic ligands and metal cations. These efforts were often less successful than hoped for because of ligand heterogeneity.

In this method, the research team found that heterogeneity, characterized by the striped pattern of different ligands on the gold nanoparticles, was an advantage.

The authors noted that the method may be further tailored to extend its applicability by modifying the ligands and the striped dimensions on metal nanoparticles incorporated into films.

It is too early in the game to tell whether this technique or some derivative of it will become a mainstay of metal analysis of environmental samples. Expect to see additional efforts to validate the utility of selectively binding nanoparticles as the basis of new and highly sensitive analysis techniques.

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Naples airport wins grant for water management, other improvements

By DAN MILLOTT

The Naples Airport Authority has secured grant money that will enable it to implement a stormwater management model that could be utilized in the future by airports around the nation.

The total grant is estimated at between \$8 million and \$9 million, the bulk of which will go to water improvement projects.

Authority Executive Director Ted Soliday said the grant money will allow the airport to extend a needed taxiway. "We will be able to complete six to eight items

on our long term capital improvement plan with the completion of this project," he said.

The airport has three stormwater ponds along its east side; the largest is near the taxiway extension. Kerry Keith, the authority's director of development, said about a third of that pond will be filled in. The pond attracts birds and other wildlife.

"Airplanes do not do well when they run into birds and animals," Keith said.

The grant money came from a Federal Aviation Authority grant to the state of Florida. The state, in turn, awarded the

basins, the Lake Apopka North Shore Restoration Area project and C-1/C-10 rediversion to improve water quality and develop alternative water resources.

In addition, their budget provides funding to rehabilitate flood control structures, conduct groundwater resource assessments and exploration, and maintain current staffing levels.

Meanwhile, the Suwannee River Water Management District has adopted a fiscal year 2012-13 budget of \$16.1 million.

With taxable property values declining by two percent, the district's millage rate will reduce taxpayers' burden by about \$280,000.

Their budget features funding for two cost-share programs totaling \$3 million. One sets aside \$1.5 million to partner with farmers to reduce groundwater use and to put in place best management practices that reduce nutrient loading to water resources.

The other cost-share program establishes \$1.5 million to partner with public drinking water suppliers to develop alternative water supply projects to offset groundwater withdrawals, to protect springs and build flood protection projects, and to improve water quality and enhance natural systems.

More than \$2.2 million will be used to establish minimum flows and levels on the Upper and Middle Suwannee River and three Bradford County lakes.

Other key projects include the Santa Fe River nutrient reduction and irrigation retrofit project. This is a partnership which includes \$900,000 from the Florida Department of Environmental Protection, \$180,000 from the district and \$50,000 from the state Department of Agriculture and Consumer Services.

The partnership project will enhance water systems through water conservation and protect natural systems by reducing nitrogen loading to streams and aquifers by up to a million pounds per year and save 670 million gallons of water per year, said district officials.

Other projects include the Upper Floridan Aquifer Recharge project, a \$265,000 partnership between the Suwannee and the St. Johns water districts. The two agencies will develop concepts for recharging the Upper Floridan Aquifer.

The Suwannee district is also partnering with the Florida Fish & Wildlife Conservation Commission on the Alligator Creek Restoration Project in Bradford County.

The project will protect natural systems by capturing 169 tons per year of sediment, provide flood control benefits by directing water into the historic floodplain and restore 31 acres of wetlands.

The project invests \$250,000 from the state Fish & Wildlife Conservation Commission and up to \$350,000 from the district.

In the Panhandle, the Northwest Florida Water Management District has a total budget of about \$22.5 million, or 45 percent less than the FY 2011-2012 amended budget.

"However, it's important to note that budgeted expenditures for the FY 2012-2013 budget more closely resemble actual expenditure levels over the past three fiscal years," said district spokeswoman Lauren Engel.

"This reflects a responsible and realistic fiscal strategy that curtails the budgeting of projects not anticipated to begin in the coming fiscal year, cost overruns and other contingencies," she said.

funds to the authority through the Florida Department of Transportation and Florida's water management districts.

The initial grant, totaling \$1.2 million, will allow the start of design for the taxiway extension and the improvement of the airport's stormwater management system.

The authority anticipates obtaining additional grants to fund 90 percent of the construction and two years of monitoring the results of water management system improvements. The balance will come from local funding sources.

Stormwater now enters airport property

Engel said it also reflects efforts to streamline the agency, including an 8.7 percent total workforce reduction.

Highlights of this year's budget include about \$3.6 million for watershed and wetland restoration projects designed to enhance wetland habitat, improve water quality and enhance floodwater storage within the Perdido River, Yellow River, Choctawhatchee River and St. Andrews Bay watersheds.

Another \$2.3 million is earmarked in funding for stormwater retrofits, water quality improvements and habitat restoration in the Apalachicola River and Bay, St. Andrews Bay and St. Marks River watersheds.

from 404 acres of industrial property east of the airport. Keith said that water ends up in two storage ponds.

Scott Brady, associate partner of Hanson Professional Services, a consulting firm retained by the airport authority, said the stormwater now flowing onto the airport is pretty clean already, but they are trying to take it up to the next level.

While the taxiway project can be completed in about 12 months, monitoring of the water quality will continue, probably until 2015, according to Brady.

Soliday pointed out that the enhanced water management system will also benefit the city of Naples and Collier County. Stormwater flowing from the airport eventually makes its way to Rock Creek. The creek flows into the Gordon River, then along to Naples Bay and eventually the Gulf of Mexico.

The scope of the project includes master drainage planning, pre-project water quality and wildlife monitoring, computational fluid dynamics modeling, permitting, construction of devices to slow water moving through the two existing ponds, and the design and construction of the automated water monitoring systems.

Results of the performance monitoring at the airport could have an impact on existing state water management rules.

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AUDIT
From Page 8

viding the district with another set of eyes. "We have made significant improvements in our acquisition and land management programs," said Melissa Meeker, executive director of the SFWMD. "Aided by an extensive database of our inventory,

we are conducting a comprehensive assessment of all district lands, scheduled for completion next year."

Meeker said the district has put in place an updated agricultural lease policy providing more transparency and public access. She also said the district has made organizational changes to better align real

estate land stewardship and land management functions.

In the area of improved transparency, Meeker cited the move to post land-related documents on the district website including a searchable database of leased lands and updated protocols with increased public involvement for leasing and surplus projects not immediately needed for district projects.

VERO
From Page 5

for it was initially low, but the city convinced several large developments including Johns Island to use it for irrigation and sign on as bulk customers.

Currently, the city has approximately 100 reuse water customers, the vast majority of whom are real estate developments on the barrier island.

Bolton said that for the past several years, the reuse water system has provided a billion gallons, plus or minus, per year.

"In the early 1990s, reuse water was not a commodity. We were trying to get rid of it. People now want to sign up when it's available," he said.

The use of stormwater should substantially contribute to balance the supply-and-demand situation that occurs when relying only on wastewater treatment plant supplies.

Other benefits such as lower cost and lower nutrient loading via stormwater runoff reduction, although incidental, are substantial.

FEDFILE
From Page 2

available at <http://www.epa.gov/air/cleanairawards/index.html>.

Sustainable growth assistance. EPA is offering assistance through its Building Blocks for Sustainable Communities Program.

The program offers assistance in the following areas: smart growth and economic development; Green Street strategies to manage stormwater; water quality protection through appropriate land use strategy; parking audits; bike share systems; community design for aging populations; green building toolkit; and programs to help small communities in rural areas retain unique community characteristics.

Communities apply for assistance based on one of the specific tools. Those selected work with an EPA-supported team during a two-day workshop. All workshops include a smart growth development strategies component.

The EPA expects to select as many as 44 communities through a competitive process.

The U.S. Department of Housing and Urban Development, and the U.S. Department of Transportation are also cooperating with this sustainable growth assistance effort through inter-agency collaboration.

Applicants for this round were accepted between Sept. 26 of Oct. 26. The EPA proposes making Building Blocks tools available on-line so that any community can access them. The Walkability Workbook is the first on-line tool; others are expected to follow.

This tool is available from the Walkable and Livable Communities Institute at <http://www.walklive.org/project/walkability-workbook/>.

The Obama administration launched the Building Blocks program in 2010. Since then more than 600 communities have requested assistance. The EPA has provided it to 140 of them.

More information about this program is available at <http://www.epa.gov/smartgrowth/buildingblocks.htm>.

NRDC names dirty air villains. The Natural Resources Defense Council has published a list of 39 U.S. senators and 193 congressmen whose voting records "for dirty air and water" make them, according to the council, "dirty air villains."

The list notes that not only have these legislators voted against laws intended to ensure clean air and clean water in the U.S., but they have also taken large campaign contribution from polluters. The correla-

Englewood moves on stormwater project

Staff report

A long awaited \$7.2 million project in Englewood that will bring major stormwater improvements received the green light late this summer when Sarasota County Commissioners accepted bids for the work.

Project Manager Admen Javed said a part of the cost—\$3.4 million—will be funded by two grants from the Southwest Florida Water Management District. The balance of project funding will come from the county.

Work on the project is expected to take 12-18 months. When completed, the project is expected to help spur redevelopment of the Dearborn Street area in downtown Englewood.

The project, a low impact development system, will filter and store stormwater runoff in roadside swales, allowing property owners to build without having to design and build on-site water storage capacity on their own property.

The bioswales will filter water through 12 inches of soil and layers of sand, gravel, plants and wood chips into perforated pipes. Most of the runoff will then be carried to Lemon Bay; some will be retained for reuse.

SFWMD has encouraged the green LID approach that the Englewood stormwater project entails.

tion implies a relationship between polluters and legislators based on campaign contributions.

The report notes that members of Congress who received more than \$100,000 from polluters during their political careers have voted against clean air laws nearly twice as often as those who received less than \$100,000 in campaign contributions.

The correlation was strengthened by an additional note that those who accepted more than half a million dollars in campaign contributions voted against clean air legislation three times as often as those who accepted less.

The report noted with irony that 48 congressmen and 25 senators represent people living in areas ranked among the most polluted in the country. These legislators' votes are inconsistent with the best interests of those who elected them to office, said the NRDC.

The list also recognized 99 Congressman and 43 senators who championed clean air rules and took less money from donors linked to activities causing air pollution.

The complete report includes links to a state-by-state listing of dirty air villains and is available at <http://www.nrdc.org/tag/who-votes-dirty/>.

In memoriam. Russell Train, the EPA's second administrator, died in September.

Train had a lengthy involvement in government service and environmental conservation, and was known for his bipartisanism that fostered effective policy supported by both conservatives and liberals in Congress.

Train began his career in government service when President Dwight Eisenhower appointed him to the tax court in 1957. He left the tax court bench in 1965 to assume the presidency of the Conservation Foundation.

Richard Nixon named him as Undersecretary of the U.S. Department of Interior when he formed his first administration.

In 1970, Nixon named him as the first chairman of the Council on Environmental Quality. Train became the administrator of the EPA after William Ruckelshaus, the EPA's founding administrator, left the EPA to manage the FBI during the Watergate scandal.

Train continued as the EPA administrator through Gerald Ford's presidency.

Landmark legislation under his tenure included the Endangered Species Act, the Toxic Substances Control Act, the Safe Drinking Water Act and the Clean Air Act.

Train died on his farm on Maryland's Eastern Shore. He was 92 years old.

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HOMOSASSA

From Page 12

The community's proposed sewer connection is scheduled for 2014.

"We are looking at the river as a whole and we are looking at where we can make a difference right away," said Anastasiou. "We are trying to focus collectively on smaller areas."

"That's what we've done with other successful projects like Cockroach Bay. It's great to go back to a site and see it thriving," he said. "We're starting to see what works. But what works in one area, doesn't always work in another area."

Once funded, restoration on the Homosassa will begin in three small test

pockets within Homosassa Springs State Wildlife Park. Each area has been determined by SWFWMD, the Florida Fish and Wildlife Conservation Commission, the Florida Department of Environmental Protection and Park Manager Art Yerian to be low traffic and off the beaten path for boaters and manatees—all elements conducive to a successful restoration.

According to Anastasiou, the district is taking a sustainable approach to this pilot project. The method of revegetation is coming through the University of Florida's Institute of Food and Agriculture Sciences. IFAS will be supplying coir material for the submerged aquatic vegetation.

Coir, also known as cocopeat, is made

of the fiber and pith that remain after the long coir fiber is extracted from the cocconut husk. It is 100 percent natural, organic and bacteria-free.

Coir has been proven to be a successful substrate because it continually recaptures and reuses water and fertilizer.

"We're getting pallets of coir material and we're planting them with Vallisneria americana, submerged tape grass," said Anastasiou. "We'll have to wait and see how the Vallisneria does. Each restoration is different and sometimes you just don't know what you're dealing with in nature."

"Grasses don't always take in places where they haven't existed before. Or something might eat it all. We're hoping to avoid that by picking areas that were deemed to have low manatee activity."

Anastasiou said that they are taking a regional approach to the restoration. So far,

NOTES

From Page 3

though they sympathized with their situation, the application request was within county rules.

Polk land swap. Polk County commissioners have approved their first-ever environmental lands property swap. The swap involves a small piece of Circle B Bar Reserve and a nearby cattle ranch owned by Al Bellotto.

A 4.26-acre parcel in a section of the 1,267-acre Circle B Bar Reserve that is not frequented by the public is being swapped for a 4.26-acre parcel on Bellotto's ranch.

The approval was recommended by county staff and the Southwest Florida Water Management District.

Agency officials agreed to the land swap in order to save the agency the cost of buying the land and paying for the engineering appraisal work that would be required.

Biofuels training. Students in South Florida State College's service district will be able to train for jobs in the biofuels industry as soon as January thanks to a \$900,000 grant from the National Science Foundation.

The college, in partnership with BP Biofuels Highlands, will create a bio-energy education program to prepare students in Highlands, Hardee and DeSoto counties for jobs in the biofuels industry.

The other partners in the new program are the University of Florida's Institute of Food and Agricultural Sciences and the Florida Energy Systems Consortium.

According to a U.S. Department of Energy report, the biomass industry is expected to create 81,615 jobs nationally by 2013.

The college is one of a small number of community and state colleges across the U.S. that has been awarded the grant.

Progressions. The Florida Association of Counties named Deena Reppen as its new legislative director.

Reppen had served as chief of staff and deputy executive director of government and public affairs for the South Florida Water Management District since 2007.

Prior to then she was chief of staff and director of communications for the state Department of Environmental Protection.

While with SFWMD, she directed legislative and intergovernmental teams and was involved in developing policy and legislative strategy at both the district and DEP.

Trey Grubbs joined the Suwannee River Water Management District as senior scientist engineer. He will work in the water supply division to assist with water supply planning, minimum flows and levels, model development and related projects.

Before coming to the district, Grubbs was employed as a hydrologist with the U.S. Geological Survey, where he worked on a wide variety of hydrologic studies in Florida.

Company news. ATC Associates, an LA-based environmental services firm with offices in Tampa and Miami, has formally transitioned into doing business as Cardno ATC. The move reflects the March 2012

coordinated efforts like this one have resulted in successful district restoration projects like Crystal River's Kings Bay Park Lagoon.

Kings Bay Park Lagoon is a cooperative funding project between SWFWMD and Citrus County. The project has been funded for \$100,000 in FY 2013 for the design and permitting with a 50/50 cost share.

As with the proposed Homosassa River restoration, this project includes the removal of accumulated sediments. Low traffic areas in the lagoon will be re-vegetated with native submerged aquatic and emergent plant species.

The Kings Bay project will draw upon restoration methods developed at the Weeki Wachee and Chassahowitzka river restoration projects. If successful, the restoration methods could be applied to larger scale restoration efforts within the district.

merger with infrastructure services consultancy Cardno Limited.

By merging with Cardno, ATC expanded its service offerings into new markets such as defense, transportation and water. They also added new capabilities to Cardno's portfolio including industrial hygiene, building sciences, geotechnical engineering and construction materials testing services.

Tampa-based EnviroTek is now providing large diameter auger excavation services complete with a new mobile batch plant to generate flowable fill for backfilling the LDA excavations. EnviroTek is also providing geotechnical drilling services with a new drill rig.

Greg and David Bloom have launched Bloom Environmental in St. Petersburg. The company specializes in complete liquid handling solutions including product transfer, filtration and liquid enhancement, cradle to grave.

Bloom Environmental is the exclusive distributor of ChitoVan™ brand chitosan in the Southeast U.S. This unique biopolymer is biodegradable, a highly effective flocculent, and enhances all stages of water filtration. Visit their web site at www.bloomenvironmental.com.

Atlantic Supply will move its Orlando operations to 3351 Maggie Boulevard, Suite 1000, in mid-December. The new facility will provide a bigger warehouse and an expanded customer showroom.

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