

# Turning the Tide

All citizens can serve as change agents in accomplishing the mission to prevent and reverse irreparable environmental damage by expanding self-awareness, implementing new behaviors, and motivating others. This monthly summary of environmental news, resources, and networking opportunities serves to enhance the education and awareness of those who want to “Turn the Tide.”

[www.ircgov.com/stormwater](http://www.ircgov.com/stormwater)  
Volume 1 Number 3 May 2008

IRC Pollution Reporting Hotline # 226-1888  
Email “environmental news” to [dwilson@ircgov.com](mailto:dwilson@ircgov.com)

## *Letter From The Editor*

Social transformation of environmentalism in Indian River County is alive and well with citizens “walking the talk” - implementing educational concepts into productive behavior. In addition to the activities coordinated by IRC non-profits listed in the **IRC Environmental Event Calendar** below, opportunities for citizens to “turn the tide” include:

**April 1st - November 5th** – vie for the \$25,000 award offered by the [www.wfchallenge.com](http://www.wfchallenge.com) competition by conceiving and implementing a totally unique volunteer project improving any waterfront

**May 15 – 18** **Green Earth Expo 2008 in Orlando**, see [www.globalgreenalliance.com/](http://www.globalgreenalliance.com/)

**Plan Now:** IRC environmental groups, community organizations and businesses are encouraged to participate as sponsors and assemble volunteer teams to clean IRC waterways, spoil islands, and area canals during the Tri-county Waterway Clean-up, 8 – 12 noon Saturday, July 19. Stephen Haigis from the Sebastian Inlet Marina has volunteered to be the IRC Team Leader [stephenh@sebastianinletmarina.com](mailto:stephenh@sebastianinletmarina.com). For details visit [www.miatc.com](http://www.miatc.com) .

**Be pro-active, report water pollution sightings – call 226-1888, IRC’s Pollution Hotline**

**Keep Indian River Beautiful,**  
*Diane Wilson, IRC Stormwater Educator*

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<b>IRC Environmental Event Calendar</b>
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To enhance community awareness and organizational planning, non-profit and governmental groups (no commercial groups) are welcome to list their environmental events, meetings and activities occurring inside and outside the county. Go to <http://www.calendar.yahoo.com>. The yahoo Id is IRCwaterqualityed and the password is calendar. Once you are in the calendar, events are easily added by selecting the desired date and clicking on "add". Please include your name, title, organization name and phone number in the comments section.

***EPA's "TOP 5" Stormwater Runoff/Pollution Prevention Best Management Practices (BMPs) – these are the major pollutants of our environmental surface and groundwater water:***

***Maintain your vehicle – water quality tests show that the most polluted runoff comes from heavily traveled streets and highways, and contains enough zinc, lead or copper to kill aquatic life.***

***Fertilizers and Pesticides- follow directions, never apply before rain***

***Septic Tanks- only dispose human waste, biodegradable toilet paper and nothing else; pump out 3-5 years, more often if a sink disposal is used***

***Grass Clippings- keep on property not in the street; clippings nourish grass***

***Animal Waste – bury 5" deep away from children's play area, septic tank and gardens***

## **Grant Deadlines**

**MAY 23 - DEADLINE for 319(h) Nonpoint Source Pollution Grant**, Requires a 60/40 match (40% from local government or non-profit). Average grant award is \$400-500K  
Approximately \$5M is available statewide. Contact [aadams@gate.net](mailto:aadams@gate.net)

**ROLLING DEADLINE - TMDL Water Quality Restoration Program stormwater construction grants**, Deadline is rolling before Dec. 30 2008. Requires a 50/50 match. Average grant award is \$500K-\$1M. Approximately \$18M is available statewide. Construction of stormwater BMPs, wet detention, exfiltration, baffle boxes, etc. Contact [aadams@gate.net](mailto:aadams@gate.net)

**JUNE 27, 2008 DEADLINE for The National Coastal Wetlands Conservation Grant Program**, administered by the U.S. Fish & Wildlife Service, provides matching grants of up to \$1 million per project for acquisition, restoration, management or enhancement of coastal wetlands. For more information, go to <http://www.fws.gov/coastal/CoastalGrants> (click on FY 2009 Notice of Availability of Federal Assistance).

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## **Websites to Know About**

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[www.CNN.com/solutions](http://www.CNN.com/solutions), profiles innovative solutions to tough environmental problems  
[Carbon Footprint Calculator – http://www.nature.org/initiatives/climatechange/calculator/](http://www.nature.org/initiatives/climatechange/calculator/)  
[www.Earth911.org](http://www.Earth911.org)  
[www.BuildingSoil.org](http://www.BuildingSoil.org)  
[www.recyclefloridatoday.org](http://www.recyclefloridatoday.org)  
<http://www.palmbeachpost.com/green/content/shared/green/index.html>  
<http://www.learningtogive.org/>

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## **NEWS FOR EVERYONE....**

**May 12 at 7 p.m. - Free lecture on sea level rise by Dr. Harold Wanless at FAU's Jupiter campus\***. Dr. Wanless, chairman of the Department of Geological Sciences at the University of Miami, will deliver a talk titled "Comes the Sea: Earth's Changing Coastal Future" as the keynote address for the 2008 Scripps Howard Institute on the Environment. The institute is organized by the School of Communication and Multimedia Studies of the Dorothy F. Schmidt College of Arts and Letters. Both the lecture and institute are sponsored by the Scripps Howard Foundation. To download the flyer for this lecture, visit <http://www.ces.fau.edu/scripps/WanlessFlyer.pdf> \*Administration Building Auditorium, AD 119 (AD auditorium is the first building to the left upon entering the Jupiter campus parking lot) Light refreshments will be served. You may RSVP for this lecture by emailing [scripps@fau.edu](mailto:scripps@fau.edu) or by calling 561-799-8462.

### **Africanized honey bees (AHB)**

...have made their way into the state of Florida. AHBs breed and compete with the European strains of honey bees that normally inhabit our state. Because Florida's AHB population is increasing, it is important to become familiar with AHBs and their behavior. Never try to remove a nest themselves. A list of licensed pest control operators by county is available at [www.doacs.state.fl.us/pi/plantinsp/ahb.html](http://www.doacs.state.fl.us/pi/plantinsp/ahb.html) . For more information on AHBs go to <http://www.doacs.state.fl.us/pi/plantinsp/ahb.html> .

**Learn more at the "Don't Worry, BEE Happy!" Presentation Tuesday, March 13, 6:30 p.m. at the Oxbow Eco-Center, Port St. Lucie (772) 785-5833.**

## **National Wetlands Maps Debut on Google Earth**

U.S. Fish and Wildlife Service maps of the National Wetlands Inventory are now available for viewing using Google Earth. The wetlands inventory includes wetlands data for approximately 60 percent of the conterminous United States, as well as portions of Alaska, Hawaii, and Puerto Rico.

The mission of the National Wetlands Inventory office is to provide citizens of the United States and its Trust Territories with current geospatially referenced information on the status, extent, characteristics, and functions of wetland, riparian, deepwater, and related aquatic habitats in priority areas to promote conservation of these resources. The maps and associated data are used extensively as part of wildlife management and conservation activities by state and federal wildlife agencies, private conservation organizations, and others.

To get started using the maps, visit <http://www.fws.gov/nwi/WetlandsData/GoogleEarth.htm>. Google Earth version 4.2 or higher is required to run this file. More information is available at <http://www.fws.gov/nwi/index.html>

**Organized organic buying club website** - [www.organicbuyingclubsofl.com](http://www.organicbuyingclubsofl.com) They have groups in different towns who coordinate distribution. There are 15 people in a group. Every 2 weeks you get produce. They've been around for 5 years.

**How to Find Eco-Friendly Companies** Green is in, with eco-enthusiasts eagerly snapping up environmentally friendly products from bamboo floors to locally grown organic produce. Green with envy at the apparent ease with which those products sell, corporate America now makes eco-friendly claims right and left as it strives to cash in on this profitable new trend... making it increasingly difficult for even savvy consumers to sort through what's marketing hype and what constitutes a bona fide commitment to the environment.

Be aware of "greenwashing" the truth ...Fake green marketing techniques are known as "greenwashing," and there's a lot of it out there. Among the many buzz-terms consumers should beware -- green, environmentally friendly, environmentally safe and 100% natural. **Legally, companies can make these claims without answering to any standards other than their own. These terms are not required to be verified or validated by either the government or independent organizations, and therefore are not guarantees of anything.** For example, being 100% natural doesn't prove that a product is safe, since there are many naturally occurring substances that are potentially harmful (eg, petroleum).

Responsible consumers should demand proof that a product is actually environmentally preferable. Read labels carefully, look for the logos of the organizations listed above and look beyond the hype. **The phone number of the company is usually printed on the label. Requesting the Material Safety Data Sheet (MSDS) is a good way to find out about chemicals... so is going to the Web site. Do whatever it takes to learn what potential toxins a product contains, and whether it can be safely disposed of or (preferably) recycled. And, if**

**an item is labeled as green but comes in wasteful packaging loaded with plastic and foam packaging peanuts, it isn't green... and it's not a great choice.**

Source: Green Seal, an independent nonprofit organization that is the largest eco-labeling organization in the U.S., and Carole Jackson with Bottom Line's *Daily Health News*  
[http://www.bottomlinecrets.com/cust\\_service/contact.html](http://www.bottomlinecrets.com/cust_service/contact.html)

**Research Reveals Silver Nanoparticle Impact** - A University of Missouri-Columbia researcher has found that silver nanoparticles may destroy benign bacteria that are used to remove ammonia from wastewater treatment systems. The study was funded by a grant from the National Science Foundation.

Several products, including socks designed to inhibit odor-causing bacteria and high-tech, energy-efficient washing machines that disinfect clothes by generating the tiny particles, are already on the market. The positive effects of that technology may be overshadowed by the potential negative environmental impact.

"Because of the increasing use of silver nanoparticles in consumer products, the risk that this material will be released into sewage lines, wastewater treatment facilities, and, eventually, to rivers, streams, and lakes is of concern," said Zhiqiang Hu, assistant professor of civil and environmental engineering in the university's College of Engineering. "We found that silver nanoparticles are extremely toxic. The nanoparticles destroy the benign species of bacteria that are used for wastewater treatment. It basically halts the reproduction activity of the good bacteria."

Hu said silver nanoparticles generate more unique chemicals, known as highly reactive oxygen species, than do larger forms of silver. These oxygen species chemicals likely inhibit bacterial growth. For example, the use of wastewater treatment "sludge" as land-application fertilizer is a common practice, according to Hu. If high levels of silver nanoparticles are present in the sludge, soil used to grow food crops may be harmed.

Hu is launching a second study to determine the levels at which the presence of silver nanoparticles become toxic. He will determine how silver nanoparticles affect wastewater treatment processes by introducing nanomaterial into wastewater and sludge. He will then measure microbial growth to determine the nanosilver levels that harm wastewater treatment and sludge digestion.

The Water Environment Research Foundation recently awarded Hu \$150,000 to determine when silver nanoparticles start to impair wastewater treatment. Hu said nanoparticles in wastewater can be better managed and regulated. Work on the follow-up research should be completed by 2010. The silver nanoparticle research conducted by Hu and his graduate student, Okkyoung Choi, was recently published in *Water Research* and *Environmental Science & Technology*.

## **Topics of Interest For....**

### **The Construction Industry**

**PlanetReuse.com** is the world's first Web site that connects buyers and sellers of reused and reclaimed construction materials and equipment and allows them to purchase products with integrated shipping online, per <http://www.eponline.com/articles/60262>

**Concrete washout issues ...** EPA is targeting construction sites to insure that there is no violation of the NPDES requirements. Those who are in violation are being hauled away in handcuffs. Please make an extra effort to ensure your staff is informed and you are making specific plans to handle concrete washout. Contractors and concrete producers must wash out the chutes in order to prevent any concrete from spilling onto the streets. Simple solution for small amounts of washout is a designated pit (sign) lined with plastic – remove and haul off when dried. Make sure this activity is located AWAY from streams and water bodies. There are 2 potential pollutants in washout. 1 = pH issues. 2 = Selenium 6 (toxic). Any questions....look at the EPA and DEP websites.

**Learn new practices and implement them project by project:** <http://www.wvn-online.com/articles/50888/>

See [www.BuildingSoil.org](http://www.BuildingSoil.org)

**Register Now** ([www.ircgov.com/stormwater](http://www.ircgov.com/stormwater)) as seats are limited for the **Tues/Wed, June 10 & 11, 2-Day DEP Florida Stormwater Erosion and Sedimentation Control Inspector's Course held in Vero Beach** - Hosted by Indian River County Stormwater Division. Remember, the 2-Day DEP inspector training classes are held year-round throughout the state as listed on their website at <http://www.dep.state.fl.us/water/nonpoint/erosion.htm>

### **Students & Teachers**

Fun resources for teachers and students:

[http://www.projectcleanwater.org/html/teachers\\_kids.html](http://www.projectcleanwater.org/html/teachers_kids.html)

Now – May 8<sup>th</sup> - ELC Lagoon Days. [heather@elcweb.org](mailto:heather@elcweb.org) or call 772-589-7723

<http://www.aquakids.tv/> – a half-hour program on the FOX television network (airs locally on WFLX 12:30 PM Saturdays) features young people taking action across the U.S. to preserve aquatic environments and wildlife.

June 7 – **World Ocean Day Celebration at the** at the Smithsonian Marine Ecosystems Exhibit. For more information visit <http://www.sms.si.edu/SMEE/calendar.htm>

June 17 –20 Forestry Tour of Florida Educators - [http://www.fl.dof.com/calendar/forestry\\_teachers\\_tour.html](http://www.fl.dof.com/calendar/forestry_teachers_tour.html)

To open in the summer of 2008.....The Children's Museum of the Treasure Coast, 1707 NE Indian River Drive, Jensen Beach. The entire building will be used as an exhibit explaining "green" features with interactive displays and animated virtual tours designed to teach children

and their parents the merits of sustainable building design, function and technology. Visit [www.childrensmuseumtc.com](http://www.childrensmuseumtc.com) for more information.

## **Marine Industry and Boaters**

**Ask your boating/fishing clubs about putting together a team** of volunteers for the Tri-county waterway clean-up event July 19 and/or obtaining sponsors. There are several Coastal Cleanups that take place throughout the Treasure Coast which are vital to the health of our beaches and shoreline, but this will be the first cleanup that specifically concentrates on the waterways, spoil islands and area canals. For details visit [www.miatc.com](http://www.miatc.com) or the IRC Team Leader, Stephen Haigis, [stephenh@sebastianinletmarina.com](mailto:stephenh@sebastianinletmarina.com)

**Friday May 9 at 4 pm – RSVP\* deadline for reservations to attend the Marine Industry Association’s General Membership Dinner Meeting to be held 6:30 p.m. May 13 at Cobb’s Landing Restaurant (2nd floor), 4 Avenue A, Fort Pierce-- by the Fort Pierce City Marina . Program presented by Dean Kubitschek, Manager of Fort Pierce City Marina -- Progress and Plans for the Future. Bring your business cards and brochures. If you’d like to give a brief description of your business, product or service, number of employees, number of years in business, etc. please let me know. If you are interested in marine industry issues and events please come! Dinner cost \$26/pp. For more information call 772/692-7599 or e-mail: [mia\\_tc@bellsouth.net](mailto:mia_tc@bellsouth.net)**

Here is an idea tournament directors can consider....The Miami Beach Sailfish Tournament produces a lot of CO2 – roughly 2,000 tons, according to Dan Kipnis, founder of the event. To offset the impact of fuel used by boat engines, travel to the tournament, and the manufacture of tournament T-shirts, this year corporate sponsors bought carbon credits, which will help fund a methane capture project...per [www.CNN.com/solutions](http://www.CNN.com/solutions)

Adopt-A-Fishing Bin Project Kicks-off - Volunteers are needed to inventory monofilament recycling bins along our waterfronts, and place collection boxes in marine-oriented businesses. For details contact KIRB at 388-5472

Clean Boater Program Comes to IRC – If you would like to assist in the efforts to promote this valuable program at events please call KIRB at 388-5472. Citizens are encouraged to utilize Florida’s Clean Marinas, Boatyards & Retailers, safeguard the state’s waterways, and adopt environmentally-friendly practices such as using bilge socks, fueling collars, and good recycling habits. For more information see [www.dep.state.fl.us/cleanmarina/boater/default.htm](http://www.dep.state.fl.us/cleanmarina/boater/default.htm)

## **Businesses**

**The following information is available at**  
**<http://bmp.projectcleanwater.org/business/index.php>**

# BUSINESSES

Select from the list of businesses below to view related activities and cleanwater best practice profiles.



- [Animal Facilities](#)
- [Auto Recyclers/Dismantlers](#)
- [Fire Sprinkler Testers](#)
- [Golf Courses](#)
- [Landscape Maintenance](#)
- [Nurseries](#)
- [Retail Centers](#)
- [Special Events](#)
- [Auto Maintenance/Body Paint/Repair](#)
- [Auto Service Stations - Gas Station](#)
- [Food Service Establishments](#)
- [Industrial Parks](#)
- [Minor Construction](#)
- [Property Management - Home Owners Associations \(HOA\)](#)
- [RV Parks](#)