

VINPS UPDATE

Nonpoint Source Pollution Committee Newsletter

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Photo courtesy of Westin St. John Resort & Villas.

Help Strengthen Community Awareness to Protect & Restore Our Environment!

Plan now to attend the 8th V.I. Nonpoint Source Pollution Conference, to be held December 4-5, 2003 at The Westin St. John Resort & Villas. Conference planners have received an abundance of poster, exhibit and oral presentation abstracts focused on this year's theme: **"Strengthening Community Awareness to Protect & Restore Our Environment."**

The Virgin Islands Nonpoint Source Pollution Conference provides education & outreach to the Virgin Islands community about Non-point Source (NPS) pollution issues in the Territory. The primary Conference objective is to increase Virgin Islanders' awareness, knowledge levels and skills, resulting in behavior and practice changes by government, industry and residents in order to improve water quality throughout the territory.

Conference planners aim to bring together: territorial & federal government personnel; university scientists, instructors, staff & students interested in water quality and pollution prevention; community groups & homeowner associations; non-governmental organizations; members of the construction, plumbing & boating industries; K-12 students & educators; farmers; and vendors to examine environmental issues in the territory and throughout the wider Caribbean region.

For conference or hotel registration information, contact Kysha Wallace, DPNR-DEP, at kwallacedpnr@hotmail.com or 340-774-3320 or Julie Wright, UVI-CES, at jwright@uvi.edu or 340-693-1082. Conference information is also available at: <http://rps.uvi.edu/CES/VINPSconf2003.htm>.

UVI-VIMAS is Getting the Nonpoint Source Message Out

For several years UVI's St. Croix VIMAS office has been educating local school children about NPS pollution. Hundreds of children have listened to VIMAS agents explain NPS pollution, how it affects the environment and how it can be minimized. But are they getting it? Do they understand and retain the message?

In order to try to evaluate this, two St. Croix fifth grade classes were given a multiple-choice pre-test, post-test and a final post test to assess their knowledge of the topic. The pre-test was given prior to the presentation, the post-test immediately after the presentation and the final test about one month after the presentation. After the presentation, the teacher reinforced the concepts learned by incorporating them into the students' lessons. Student scores on the tests were recorded and analyzed to determine their level of understanding of the topics covered in the presentations.



Youth from the St. Croix Boys & Girls Club listening to a UVI-VIMAS nonpoint source pollution presentation.

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Statistical comparisons of pre-test scores with post-test scores showed highly significant improvement in the students' understanding of NPS materials and is a result of learning about NPS through the presentations by VIMAS staff. Pre-test scores compared with the final post-test scores showed that students continued to improve even a month after the NPS presentation, indicating retention of the presentation material and the effectiveness of reinforcement of the concepts by the teacher. Comparison of post-test and final test scores also yielded a significant difference, but the improvement indicated was not as dramatic as was seen with comparison of the pre-test scores, which is to be expected.

So it seems that students are indeed learning and retaining information received during VIMAS NPS presentations. This is especially important given the increasing awareness within the federal and local governments that project impacts must be evaluated in order to more efficiently allocate limited resources. *"This evaluation process has given us justification to continue our work and confidence that we are indeed making a difference,"* VIMAS Agent Marcia Taylor said. *"It has also helped us understand which areas of instruction need additional effort in order to improve learning."* For more information on this program, contact St. Croix UVI-VIMAS agent Marcia Taylor at 340-692-4046 or mtaylor@uvi.edu.

UVI-CES Helps Residents Understand Their Septic Systems



Untreated sewage overflowing from a failed septic system on St. Thomas.

Many homes in the Virgin Islands use a standard septic system to treat waste water from the bathroom, kitchen, and clothes washer. However, public health officials report that **more than 400 septic systems fail in the territory each year**. Many septic systems fail in the Virgin Islands

because of poor siting or up-keep. Waste water from failing septic systems can pollute cisterns, wells, guts, ponds, and beaches. Sewage can overflow onto the soil surface around a septic system, creating a public health risk. Waste water also can cause algal blooms in ponds, lagoons, and coastal waters that kill fish and shell fish.

To address these problems, UVI's Cooperative Extension Service (CES) conducted **"Understanding Your Septic System"** workshops in August on St. Thomas and St. Croix. Residents attending the workshops learned about how septic systems function, how to site and design a septic system, how to operate and maintain septic systems to prevent failures, failure warning signs, and methods for evaluating and ranking septic systems for pollution potential. 81% of attendees said that they increased their knowledge of septic system issues, and all participants said they would implement the "good house-keeping" practices recommended at the workshops. As a result of the workshops, CES staff also visited a resident's home site to provide recommendations to remediate the home owner's failed system.

The **"Understanding Your Septic System"** workshop is part of UVI-CES's **VI*A*Syst** (V.I. Home & Farm Water Quality Protection) Program. **VI*A*Syst** is a voluntary program that offers Virgin Islanders a simple and effective way to help protect water quality and improve health and quality of life by reducing pollution risks in and around the home. For more information on septic systems or VI*A*Syst, contact Julie Wright, 340-693-1082 or jwright@uvi.edu, or Dale Morton, 340-693-1086 or dmorton@uvi.edu.

VI Marine Park Committee Receives National Award

Congratulations go out to DPNR's Coastal Zone Management Program and the V.I. Marine Park Advisory Committee, recipients of a 2003 Coastal America Partnership Award for their work in enacting legislation to establish the St. Croix East End Marine Park. The park is home to a magnificent barrier reef, patch reefs, colorful corals, a vast array of fish, sponges, endangered turtles, and a healthy mangrove ecosystem.



St. Croix East End Marine Park.

Coastal America's Partnership Awards recognize outstanding partnership efforts and/or multi-agency projects. The award ceremony will be held on St. Croix October 23rd. The V.I. award highlighted DPNR's strategy to initiate a collaborative process among key agencies, guided by an advisory committee, which was critical to the effort to enact new legislation to protect the resources in the Marine Park. Legislation to establish the St. Croix East End Marine Park was approved in January 2003 and utilizes a zoning strategy to allow for multiple uses within the boundaries of the Park while minimizing conflicting uses.

Coastal America is a unique partnership of federal agencies, state and local governments, and private organizations. The partners work together to protect, preserve, and restore our nation's coasts. For more information on Coastal America, visit www.coastalamerica.gov. For details on the St. Croix East End Marine Park, visit www.viczmp.com.

EPA Releases VI Annual Report on Pollutant Releases to Air, Water and Land

The U.S. Environmental Protection Agency (EPA) has issued its annual report detailing the most recent toxic chemical releases into the environment of the U.S. Virgin Islands by industries and other facilities. Due to past reporting errors, the 2001 report shows an increase in levels of toxics released in the Virgin Islands between 2000 and 2001. New this year is information on estimated lead emissions to the environment. In addition, the thresholds for reporting many toxic chemicals were reduced.

"Informing the public with basic information about toxic chemicals in their communities is among the most effective, common-sense steps

to protect the health of families and children from the threats posed by pollution," EPA Regional Administrator Jane M. Kenny said. "That is why EPA has consistently expanded the type and amount of information available to the public under the Right-to-Know program," she pointed out.

The total reported toxic releases in the Virgin Islands were up from approximately 671,681 pounds in 2000 to 1,032,199 pounds in 2001. The increase was due to higher amounts of carbonyl sulfide, carbon disulfide and nitrate compounds emissions reported by HOVENSA, based on more extensive sampling at their facility. HOVENSA has informed EPA that it will revise past TRI reports and use specialty catalysts to reduce future emissions. Visit EPA's website www.epa.gov/tri to access specific on-line TRI information related to the VI community.



October is National Home Indoor Air Quality & Children's Health Month

The UVI Cooperative Extension Service is celebrating **Home Indoor Air Quality & Children's Health Months** by conducting presentations for youth & community groups and promoting awareness of and actions to protect Children's Health & Home Indoor Air Quality here in the V.I.

National Home Indoor Air Quality Action & Awareness Month was developed by the Healthy Indoor Air for America's Homes Program and is supported by Presidential Proclamation. Each week focuses on a different home indoor air topic (general IAQ action & awareness, children & asthma, secondhand smoke & children's health, and lead & children). For details on the **Healthy Indoor Air for America's Homes Program**, visit www.montana.edu/wwwcxair/.

During **Children's Health Month**, EPA is also joining with other agencies of the President's Task Force on Environmental Health Risks and Safety Risks to Children to help Americans take actions to protect our most precious future resource, our children. Families can take advantage of a special October calendar that includes an action step for each day of the month. Topics range from nutrition and school health, to environmental safety, to injury and disease prevention. For details, visit www.epa.gov/newsroom/hi-childrenshealthmonth.htm or www.childrenshealth.gov/index.html. For more information on Indoor Air Quality and Children's Health, or to schedule a presentation, please contact Dale Morton or Julie Wright at the UVI Cooperative Extension Service at 693-1080.

St. Thomas Youth Celebrate CoastWeeks!



Students from Sibilly School picked up 29 bags of trash on Coki Beach October 3rd. During the 3 weeks of CoastWeeks over 300 students from 9 schools and Junior ROTC participated in CoastWeeks clean-ups on St. Thomas.

Web Resources

A revised version of the **History of Protected Area Initiatives in the U.S. Virgin Islands**, IRF Occasional Papers Series #58, is now available from Island Resources Foundation in photocopy form for \$5 prepaid. The paper highlights efforts to get the territorial part program, as long ago as the 1950's and details 10 major territory-wide studies. Contact bpotter@irf.org for details.

Making Waves: Integrating Coastal Conservation & Development, a new Earthscan publication, identifies the dilemmas of managing conservation and development in coastal areas. Visit www.earthscan.co.uk/asp/bookdetails.asp?key=3797 for details.

The U.S. EPA has unveiled a new **High School Environmental Center** web site to help high school students explore and learn about their

environment and ways to protect it. The Web site contains information about air and water issues, waste and recycling, conservation, health and safety, eco-systems, and community environmental conditions. It also links interested students to internship and scholarship opportunities, environmental careers and community involvement projects. For details, visit www.epa.gov/highschool.

The US Government General Accounting Office has released it's report: **Invasive Species: State and Other Non-federal Perspectives on Challenges to Managing the Problem**, GAO-03-1089R, available for download at www.gao.gov/cgi-bin/getrpt?GAO-03-1089R.



Available Grants

The U.S. Fish & Wildlife Service and the North American Wetlands Conservation Council are seeking proposals for wetland and wetland-associated upland conservation projects under the **Small Grants program for the North American Wetlands Conservation Act**. Up to \$50,000 per project will be awarded. Proposals are due November 28, 2003. For details, visit <http://northamerican.fws.gov/NAWCA/USmallgrants.html>.

The **US Fish & Wildlife Foundation** is soliciting applications to support habitat restoration projects that benefit native aquatic species (e.g., native fish, aquatic insects, mollusks, and amphibians) in their historic range. Applicants should follow the Foundation's general challenge grant guidelines and the associated time-line. Pre-proposals are due October 15, 2003; full proposals are due December 1, 2003. Visit www.nfwf.org/programs/grant_apply.htm for details about BBN and other Fish & Wildlife Foundation grants.

The **14th Annual Toyota TAPESTRY Grants for Teachers** program will award \$550,000 to K-12 science teachers in the United States and its territories. Toyota is offering 50 large grants of up to \$10,000 each and a minimum of 20 mini-grants of up to \$2500 each. Proposals are due January 16, 2004. For details, visit www.nsta.org/programs/tapestry.

Celebrate Our Culture: Support V.I. Agriculture!

That's the theme of the 22nd annual St. Thomas-St. John Agriculture and Food Fair, to be held Saturday and Sunday, November 22 & 23, 2003, at the UVI Reichhold Center for the Arts grounds. Food & drinks, fruits, vegetables, plants and arts & crafts will all be on sale. There will also be educational displays, livestock exhibits, pony rides, and live entertainment. Admission is \$1:00 for children under 13 and \$2.00 for everyone else. A calf; 5 fruit trees; 3 bags of feed; and 68 medicinal plants, a bottle of local honey and a native recipes cookbook will be raffled off. For details, call the V.I. Agriculture Department at 340-774-5182 or UVI-CES at 340-693-1080.

Upcoming Events

Local

November 5, 2003. **WRRRI Seminar: Fecal Coliform Bacteria Removal Efficiencies for Stormwater BMPs in the VI**, UVI St. Thomas & St. Croix. Contact UVI-WRRRI at 340-693-1062 for details.

November 6, 2003. **Understanding Your Septic System**, UVI-CES St. John. For details, contact Dale Morton at 340-693-1086 or dmorton@uvi.edu.

November 22-23, 2003. **St. Thomas - St. John Agriculture & Food Fair**, UVI Reichhold Center Grounds, St. Thomas. Contact UVI-CES at 340-693-1080 or VI Ag. Dept. at 774-5182 for details.

December 4-5, 2003. **Strengthening Community Awareness to Protect & Restore Our Environment, 8th Virgin Islands Nonpoint Source Pollution Conference**, St. John, VI. Visit <http://rps.uvi.edu/CES/VINPSconf2003.htm> for details.

December 7, 2003. **Eco-Hike Guide Training Workshop**, UVI-CES St. Croix. Contact Olasee Davis at 340-692-4053 or odavis@uvi.edu for details.

December 2003. **Ground Cover Workshop**, UVI-CES St. Thomas. Contact Carlos Robles at 340-693-1083 or crobles@uvi.edu for details.

National

October 20-23, 2003. **Third National Conference Nonpoint Source Pollution & Education Programs**, Chicago, IL. For details, visit www.chicagobotanic.org/research/conference/nonpoint.

November 8-12, 2003. **2nd Conference on Watershed Management to Meet Emerging TMDL Environmental Regulations**, Albuquerque, NM. For Conference details, contact Barbara Sowden at sowden@asae.org.

November 4 - 11, 2003. **Advanced Marina Management School** Ft. Lauderdale, FL. For details, visit www.imimarina.org.

January 22-24, 2004. **3rd Annual New Partners for Smart Growth**, Portland, OR. Visit www.outreach.psu.edu/C&I/SmartGrowth for details.

February 16-20, 2004. **35th Annual International Erosion Control Association Conference**, Philadelphia, PA. Visit www.ieca.org for details.

February 19-21, 2004. **North American Interdisciplinary Conference on Environment and Community** - Call for Papers, Saratoga Springs, NY. Submission deadline: November 1st. For details, www.esc.edu/EnvironConf.

March 14-16, 2004. **National Green Building Conference**, Austin, TX. For details, visit www.nahbrc.org/conferenceseminarsgreen.asp?CategoryID=1676.

Nonpoint source (NPS) pollution results from rain water flowing over and through the ground, picking up pollutants and depositing them into guts, salt ponds, beaches, coastal waters, and ground water.

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