

VINPS UPDATE

Nonpoint Source Pollution Committee Newsletter

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Virgin Islanders Capture Four EPA Environmental Quality Awards

Congratulations go out to The Boys & Girls Club of St. Thomas, UVI-CES' Julie Wright, the UVI Conservation Data Center, and the Clean and Preen Summer Program's Benner Bay Project. All are recipients of this year's prestigious Environmental Quality Awards presented by Region 2 of the U.S. Environmental Protection Agency (EPA).

According to William Muszynski, acting Regional Director for EPA Region 2, "the Environmental Quality Award is the highest recognition presented to the public" by the EPA. EPA Region 2 presents Environmental Quality Awards annually to individuals, nonprofit groups, educators, business people, government officials and journalists from New York, New Jersey, Puerto Rico and the U.S. Virgin Islands. Winners are chosen by an internal panel that reviews nominations submitted from inside and outside the Agency. Awardees are recognized for their significant contributions to improving the quality of the environment in the region.

The **Boys & Girls Club of St. Thomas** was awarded in the category of "Non-Profit Organization, Environmental or Community Group" for their work in organizing and conducting beach cleanups. **Ms. Wright's** award was in the individual Environmental Education for her commitment to the preservation of the natural resources of the Virgin Islands and her work with UVI-CES to provide technical assistance that promotes environmentally-responsible behavior in the community. The **UVI Conservation Data Center** was awarded the organizational Environmental Education award for its training programs and special projects, including the mapping of the V.I.'s terrestrial vegetation and marine benthic communities and Geographic Information Systems and Global Positioning Systems training.

The St. Thomas-St. John ALBC's **Clean and Press Summer Program's Benner Bay Project** is the regional winner of the 2000 President's Environmental Youth Award. Clean & Preen students collected and removed nearly 600 bags of garbage, as well as tires, boat engines, batteries, refrigerators, freezers, plywood, radiators, galvanized aluminum and bathtubs from Benner Bay. Their work cleared space for mangroves and sea grass beds critical to marine organisms and wildlife.



Julie Wright, UVI-CES Natural Resources Program Supervisor, receives EPA Environmental Quality Award from EPA Administrator Christine Todd Whitman (left) and EPA Region 2 Acting Administrator William Muszynski.

DPNR-DEP Announces New 319 Grant Projects

The Department of Planning and Natural Resources Division of Environmental Protection (DPNR-DEP) has selected the following new projects for funding for Fiscal Year 2001 under section 319 of the Clean Water Act:

- C **Estate Bethlehem Watershed Water Quality Demonstration Project.** This project will implement best management practices (BMPs) to reduce the impact of nonpoint source pollution from agricultural chemicals, sediment, human and animal waste in the Estate Bethlehem watershed. It will also inform and educate the public about water conservation and efforts to increase water yield through educational programs and field day demonstrations.
- C **Water Quality Standards Revision for the U.S. Virgin Islands.** This project will develop water quality standards that support the definition of "Waters of the Virgin Islands" as defined in the Virgin Islands Code.
- C **We Grow Food.** This project will completely refurbish, enhance, manage and maintain the six dams in the Bordeaux watershed on St. Thomas. The dam enhancement will reduce filtration and seepage, prevent soil erosion, pollution and coastal zone destruction.
- C **Man-made Ponds and Crop Farming to Reduce the Level of Nonpoint Source Pollution.** This project aims to reduce nonpoint source pollution entering the sea by increasing water retention in ponds, increasing bio-degradation of pesticides and other

pollutants in holding ponds, reducing runoff, controlling erosion of spillways, and harvesting water for farming.

- C **Sediment Deposition, Water Quality and Coral Assessment of the Coral Bay, St. John and Botany Bay, St. Thomas Areas of Particular Concern.** This project will measure water quality within Coral and Botany Bays, measure coral recruitment, algal cover and composition of reef fishes at three designated sites within each bay, and quantify amount and types of sediment deposition at different locations in these two bays.
- C **St. Croix Animal Shelter Alternative Onsite Sewage Disposal System.** This project will implement BMPs to dispose of and recycle the sewage generated by the St. Croix Animal Shelter.
- C **Agriculture and Home Pesticide Waste Collection Program.** This project is a part of the Virgin Islands State Management Plan for the protection of ground water.
- C **Fish Bay Sedimentation and Road Erosion Reduction Project.** This project will implement BMPs to reduce erosion and nonpoint source pollution in the Fish Bay, St. John watershed.

The following on-going projects from Fiscal Year 2000 will also receive renewed funding:

- C Little LaGrange Flood Erosion Project
- C Nonpoint Source Education for St. Croix Youth
- C Nonpoint Source Committee Operations
- C Nonpoint Source Newsletter

For further information on 319 grant projects, contact Gail Samuel at (340) 773-0565.

St. Croix Youth Learn About

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the Role of Wetlands in Reducing NPS Pollution

UVI's Marine Advisory Service (VIMAS) has expanded its menu of nonpoint source (NPS) pollution activities available for island youth. VIMAS' NPS Education Program offers teaching units on watersheds and watershed dynamics, wetlands and mangroves, marine debris and storm water runoff to educators, students and community groups. Each unit consists of classroom and field activities, so educators can include segments or the entire program into their lessons. The response to the expanded options has been great, with the program reaching seven new schools this year.

In May, the VIMAS team of Marcia Taylor and Paige Rothenberger introduced the entire first grade at Claude O. Markoe Elementary School to the wonderful world of wetlands. In all, 74 students and four teachers learned what wetlands are, where they can be found, and their importance not just to wildlife but to all island residents. Classroom discussion focused on wetlands as habitat, the types of plants and animals found in VI wetlands, and how wetlands protect our shorelines and water quality. The following week the students visited the UVI Wetlands Reserve to experience a wetland firsthand.



Claude O. Markoe students and teachers pose during their tour of UVI wetlands on St. Croix.

At the Reserve the students explored several habitats including a sandy beach, salt ponds, mangroves and the adjacent upland scrub forest. The mangrove area was the favorite part of the trip for students Andrew Clarke, Waldemal Carrion and Elishua Mitchell. The boys were particularly excited to see a large crab trudging through the mangroves. One teacher, Ms. Thomas, commented that she was especially impressed that her students "recognized trees that had been identified and discussed earlier in the trip, particularly the poisonous manchineel tree."

Despite a few raindrops, the occasional mosquito and the short uphill portion of the trail, the overall consensus was that "this was our best field

trip!" Back in class, the teachers followed up with additional activities. Many students drew pictures of the trip and wrote sentences describing their experience.

A month after the activity, Rothenberger visited the classes again, and was pleasantly surprised at what the students remembered. A majority of students could still name and describe the three species of mangroves in the VI. For many of the students one or two special things stood out in their memories from the trip, like being scared by a ghost crab, seeing a fish jump out of the pond, finding a turtle egg or spotting a warbler. Askia Richards summarized his wetland experience, "we saw lots of kinds of plants and learned how they can be used for medicine. We also saw a huge termite nest and on the way back to the taxi vans, we saw a deer footprint." The activity was a hit with the teachers as well. According to Ms. Bedneau "I had never been out there before, it was good for me and the kids really enjoyed it. We are planning on taking another trip next year."

For more information on VIMAS' NPS Education Program or the UVI Wetlands Reserve, please contact Marcia Taylor at (340) 692-4046 or Paige Rothenberger at (340) 692-4043.

Volunteers Needed for SEA's Mangrove Restoration Project

It's time again to drag out the mud shoes, insect repellent and your grubbier set of clothes. Yes, it's mangrove-planting time! The St. Croix Environmental Association (SEA) and hundreds of volunteers have planted nearly 12,000 *Rhizophora mangle* propagules in Salt River Bay over the past two years. This year SEA's goal is to plant 6,000 additional *Rhizophora* plus 3,000 *Avicennia germinans* during the months of August, September and October.

Project coordinator Carol Cramer-Burke reports survival rates of 83% and 100% respectively for the 1999 and 2000 seasons. Said Burke, "Although this project is very challenging, it is also extremely rewarding to see all the green shoots where two years ago there was nothing but dead mangrove trees.

Mangroves filter sediment and absorb large quantities of nitrates from upland runoff, provide habitat for birds, nursery areas for fin and shellfish and protect shorelines from erosion. Knowing all these benefits makes the hard work much more worthwhile."



Rhizophora at 15 months of age (planted in 1999, the first year of the project.)

Volunteers are essential to the success of the project. SEA needs help with collection of mangrove propagules, equipment transportation, volunteer recruitment and, of course, lots of planters! If you would like to learn more about mangrove ecosystems and do a good thing for planet earth, please call Carol Cramer-Burke at (340) 773-1989 to volunteer. This project is funded by a DPNR Division of Environmental Protection \$319 grant in partnership with the National Park Service, V.I. Marine Advisory Service, DPNR Division of Fish and Wildlife, The Nature Conservancy and St. Croix Alumina.

Web Resources

The following UNEP Caribbean Environment Programme reports are available on their website www.cep.unep.org: **Regional Overview of Land-Based Sources of Pollution in the Wider Caribbean Region, Assessment of Land-based Sources and Activities Affecting the Marine, Coastal and Associated Freshwater Environment in the Wider Caribbean Region, and Appropriate Technology for Sewage Pollution Control in the Wider Caribbean Region.**

Center for Watershed Protection (CWP) Publications. The following publications can be viewed and ordered from the CWP website www.cwp.org: **Urban Stream Restoration Practices: An Initial Assessment; The Practice of Watershed Protection; The National Stormwater Treatment Practice Database: 2nd Edition; and Better Site Design: An Assessment of the Better Site Design Principles for Communities Implementing the Chesapeake Bay Preservation Act.** Also available is a "Do It Yourself Better Site Design Kit: Everything You Need to Know About Changing Your Development Rules" that organizations can use to make better site design happen in their community.

"Coastal News Nuggets" posts a roundup of newspaper headlines and press releases covering Atlantic coastal issues and activities between Nova Scotia and the eastern Caribbean. The site is part of the Sustainable Development Institute's project Atlantic CoastWatch., which promotes environmentally sound development in the northwestern Atlantic region. To subscribe to Coastal News Nuggets, send a blank e-mail to: <mailto:AtlanticCoastWatch-subscribe@topica.com> or AtlanticCoastWatch-subscribe@topica.com.

Coral Reef Ecology - Current Projects. The USGS' Biological Resources Division webpage at the "Florida Caribbean Service Center" provides rapid access to project level summaries. Much of this information comes from the efforts of scientists at the Virgin Islands National Parks in St. John. To review project information, visit www.fcsc.usgs.gov/Coral_Reef_Ecology/Coral

[Current Projects/coral_current_projects.html](#)

EPA Groundwater Resources. EPA has a number of websites that provide information about groundwater pollution and drinking water protection. Visit: www.epa.gov/OGWDW/, www.epa.gov/safewater/protect/sources.html, and <http://ga.water.usgs.gov/edu/> for details.

EPA Web-Based Drinking Water Training. The EPA Office of Water has an interactive, web-based Drinking Water Academy Electronic Workshop designed to provide self-paced training modules that give a broad introduction to the Safe Drinking Water Act. For details, visit www.epa.gov/safewater/dwa/electronic.html.

EPA Water Quality Standards websites. A repository of State and Tribal water quality standards is now available on EPA's website at: www.epa.gov/ost/wqs. This new web site enables users to obtain the full text of water quality standards that are in effect under the Clean Water Act for each State and Tribe authorized to develop standards.

Excellence in Environmental Education Guidelines. The National Project for Excellence in Environmental Education (NPEEE) and the Environmental Education and Training Partnership have developed guidelines designed to help teachers in every discipline improve student learning and make quality material more accessible. To access the new guidelines and for details, visit www.naaee.org/npeee/.

"Guidelines for Integrated Planning and Management of Coastal and Marine Areas in the Wider Caribbean Region," a coastal zone framework document written by Island Resources Foundation, Inc. for the Caribbean Environment Programme of UNEP, is now on-line. To view or download a copy, visit www.cep.unep.org/pubs/techreports/guidelines/index.html.

"High Performance Guidelines: Triangle Region Public Facilities," a new publication intended to help design and construct efficient, cost-effective, durable, and environmentally sound buildings and landscapes, is available on the Internet. For details, visit www.tjcog.dst.nc.us/hpgtrpf.htm.

"Drinking Water and Wastewater Handbook for Local Officials," produced by the College of Southern Maryland's Maryland Center for Environmental Training, is designed to help elected, administrative, and managerial officials understand the various legal and technical requirements for the treatment, storage, and distribution of drinking water and the collection, treatment, and discharge of wastewater. Visit www.mcet.org/spec_project/LOH.htm for details.

The 1995 revised **U.S. Virgin Islands Soil Survey** manuscript can be downloaded in Adobe Acrobat pdf format from: www.statlab.iastate.edu/soils/soildiv/surveys/virgnis.pdf.

The Water Sourcebook Series is a 4 volume curriculum for grades K-2, 3-5, 6-8, & 9-12. The Series explains how the water management cycle affects every aspect of the environment. It contains hands-on activities and investigations, fact sheets, reference materials, and a glossary. Visit www.epa.gov/safewater/kids/exper.html for details.

Available Grants



"One-Stop Shop" Web Site for Federal Grants. The recently launched Federal Commons Web site allows users to search the General Services Administration catalog of federal grant programs. Eventually, the site will allow applicants to submit and track their grant applications on-line and provide a searchable database of new grant announcements. Visit www.cfda.gov/federalcommons/ for details.

Habitat Restoration Grants. NOAA's National Marine Fisheries Service seeks new partnerships under its Community-Based Restoration Program to utilize \$8 million to restore marine, estuarine and anadromous fish habitat. For details and partnership application, visit www.nmfs.noaa.gov/habitat/restoration/community/feb9.

Ecosystem Research Grants. The Energy Department's Office of Biological and Environmental Research is soliciting applications for research grants that address predicting or detecting effects of simultaneous changes in climate and atmospheric composition on terrestrial ecosystems and their component organisms and processes. Approximately \$1.8 million will be available for multiple awards to be made in early FY 3002. Pre-applications are encouraged and due July 2. The formal application deadline is August 13. Visit www.sc.doe.gov/production/grants/grants.html; scroll down to the fifth item for details.

North American Wetlands Conservation Grants. The U.S. Fish and Wildlife Service and the North American Wetlands Conservation Council are currently accepting proposals that request match funding for wetland and wetland-associated upland conservation projects. Proposals must be postmarked no later than November 30, 2001. For details, contact the DBHC office at (703) 358-1784 or email R9ARW_DBHC@FWS.GOV.

The **Watershed Assistance Grants** program is funded by EPA through a cooperative agreement

with River Network. This competitive, national grant program seeks to support the growth and sustainability of local watershed partnerships. Grants of up to \$30,000 are available. Applications must be postmarked by July 20th. For criteria and an application form, visit www.rivernetwork.org/howwecanhelp/howwag2001cri.cfm

Upcoming Events

Local

July 8, 2001. **Mango Meke**, St. George Village Botanical Gardens, St. Croix. Contact Clinton George, UVI-CES, at (340) 692-4071 or cgeorge@uvi.edu for details.

July 16-20, 2001. **Coastal Hazards Workshop**, UVI Teacher Education Building Room T101. Contact Dr. Rosend Hernandez-Badia at (340) 693-1282 or rhemann@uvi.edu for details.

August 4, 2001. **Mango Meke**, Tutu Park Mall, St. Thomas. Contact Carlos Robles, UVI-CES, at (340) 693-1083 or crobles@uvi.edu for details.

August 5 & 19, 2001. **Tree Pruning Workshop**, UVI-CES St. Thomas and St. Croix, respectively. Contact Stafford Crossman at (340) 692-4054 or scrossma@uvi.edu for details.

August 7-9, 2001. **Wetlands of the Virgin Islands Workshop**, UVI-CES St. Croix, St. Thomas, St. John, respectively. For details, contact Olasee Davis at (340) 692-4053 or odavis@uvi.edu.

August 8-9, 2001. **Farm Safety for Hurricane Preparedness Workshop**, UVI-CES St. Croix and St. Thomas, respectively. For details, contact Stafford Crossman at (340) 692-4054 or scrossma@uvi.edu.

August 21 & 23, 2001. **Safe & Healthy Water Supply Workshop**, UVI-CES St. Croix and St. Thomas, respectively. For details, contact Julie Wright at (340) 693-1082 or jwright@uvi.edu.

September 9 & 16, 2001. **Tree Planting and Maintenance Workshop**, UVI-CES St. Thomas and St. Croix, respectively. For details, contact Stafford Crossman at (340) 692-4054 or scrossma@uvi.edu.

September 13 & 20, 2001. **Environmental Education Workshop for Teachers**, St. Croix and St. Thomas, respectively. Contact Olasee Davis at (340) 692-4053 or odavis@uvi.edu for details.

September 15 - October 7, 2001. **Coast weeks**. To participate in a cleanup or learn more about marine debris, contact Paige Rothenberger or Marcia Taylor, St. Croix VIMAS, at (340) 692-4046 or (340) 692-4043 or Donna Griffin, St. Thomas DPNR-DFW, at (340) 775-6762.

September 22, 2001. **Sustainable Practices for Livestock Production**, UVI-CES office St. John. Contact Kofi Boateng at (340) 602-4066 or kboateng@uvi.edu for details.

October 2-3, 2001. **Urban Gardening Workshop**, UVI-CES St. Thomas and St. John, respectively. For details, contact Carlos Robles at (340) 693-1083 or crobles@uvi.edu.

October 14, 2001. **World Food Day Fair**, UVI Research & Extension Center, St. Croix. For details, contact Clarice

Clarke at (340) 692-4060 or cclarke@uvi.edu
 October 16 & 18, 2001. **Hydroseeding Certification Training Workshop**, UVI-CES St. Croix and St. Thomas, respectively. For details, contact Julie Wright at (340) 693-1082 or jwright@uvi.edu
 October 25-27, 2001. **Fourth Water Information Summit**, Panama City, Republic of Panama. For details, contact Lenin Montano, at (507) 317-0125 or wis4@cathalac.org or visit www.cathalac.org.

National

July 15-19, 2001. **Coastal Zone 01**, Cleveland, OH. CZ01 will feature important coastal management lessons and models of successful partnerships. For details, visit <http://www.csc.noaa.gov/cz2001/conference.html>.

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July 23-25, 2001. **Survival Strategies for Small and Limited Resource Farmers and Ranchers**, Memphis, TN. Visit www.mausda.gov/ for details.
 August 4-8, 2001. **Soil and Water Conservation Society (SWCS) 2001 Annual Conference**, Myrtle Beach, South Carolina. For more information visit the conference website at http://www.swcs.org/what_calendar.htm.
 August 27-30, 2001. **Monitoring and Modeling Nonpoint Source Pollution in Agricultural Landscapes**, Indianapolis, IN. For details or to register, visit www.ctic.purdue.edu/CTIC.

September 5-6, 2001. **Wetlands & Remediation 2nd International Conference**, Burlington, VT. For details, contact the Conference Group at conferencegroup@compuserve.com or 1-800-783-6338.
 September 7-9, 2001. **22nd Annual American Community Gardening Association Conference**, "Pioneering Self-Reliance, Conservation and Leadership Through Community Gardening," Salt Lake City, UT. For details or to register, visit www.communitygarden.org/new/2001conf.html.

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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