

V.I. NPS UPDATE

Nonpoint Source Pollution Committee Newsletter

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UVI-CES Leads Sustainable Agriculture Training

A spirited discussion of organic farming standards and hands-on field application of a soil quality testing kit were the highlights of a two-day Sustainable Agriculture Research and Education (SARE) workshop sponsored by the UVI Cooperative Extension Service (CES). Over 35 farmers, agricultural professionals and administrators from the U.S. and British Virgin Islands, along with Puerto Rico, attended the February workshop, which brought trainers from as far away as North Carolina to St. Thomas.



Workshop attendees assist UVI-CES trainer Stafford Crossman in testing soil quality at Charles Leonard's Bordeaux farm.

The first day featured presentations on sustainable agriculture issues and practices for both crop and livestock production. The second day focused on testing for soil quality as a tool in sustainable agriculture. Soil quality theory and principles were discussed in preparation for an afternoon field trip in which participants used a soil quality test kit to evaluate soil.

The UVI-CES Sustainable Agriculture Project develops and conducts education activities that deliver researched-based information on sustainable agriculture production practices to V.I. farmers and professionals. These practices must be environmentally sound, socially acceptable and economically profitable. In response to a need identified in the V.I. farming community, this year's training focused on organic farm production issues and practices. For more information on sustainable agriculture issues, contact Dr. Louis E. Petersen, UVI-CES, at (340) 693-1080 or lpeters@uvi.edu.

St. Thomas Rapid Ecological Assessment Maps Unveiled

A crowd of over 45 representatives from the Lt. Governor's office, DPNR, UVI and WAPA, in addition to local architects, engineers, surveyors, real estate brokers and dive shop owners, attended the unveiling of the UVI Conservation Data Center's (CDC) final set of Rapid Ecological Assessment (REA) Maps Wednesday, March 21, 2001. The St. Thomas set of maps was the last in the series that began with the St. Croix maps, unveiled last May, followed by the St. John maps unveiled in February.

The REA maps were created by analyzing aerial photographs, digitizing resultant hand-drawn polygons depicting various habitat zones, and then ground-truthing the resulting maps through field surveys. The REA maps for all three islands show watersheds, topography, vegetation, marine habitats, soils, APCs (areas of particular concern) and varying development densities. The maps can be used to predict trends, assist in responsible land use planning, and predict habitat for certain plant and animal species.



St. Thomas land use map unveiled by UVI-CDC.

Hard-copy and electronic versions of the maps may be obtained from UVI-CDC on a sliding price scale. For more information, contact Dayle Barry at (340) 693-1030 or dbarry@uvi.edu or visit the CDC web site at <http://cdc.uvi.edu/>.

Nonpoint Source Project Grants Available from DPNR

The V.I. Department of Planning and Natural Resources (DPNR) held public meetings February 21-22, 2001 on St. Croix and St. Thomas announcing the availability of \$419,333

in grant funding for fiscal year 2001. This funding will be awarded as pass-through grants to perform Nonpoint Source Pollution Control and Management Implementation projects in the territory. The grants are funded through Section 319(h) of the federal Clean Water Act for projects that implement best management practices (BMPs) in priority areas or for education projects targeted to critical audiences.

All project pre-proposals must be delivered to DPNR's Division of Environmental Protection (DEP) or postmarked **no later than April 30, 2001**. DPNR will notify successful applicants of acceptance or denial by May 31, 2001. Final proposals must then be submitted to DPNR-DEP or postmarked no later than June 30, 2001. Guidelines for NPS Pollution Control and Management Implementation grant proposal development may be obtained from DPNR-DEP by calling (340) 773-0565.

NPS Update Now Online!

VI NPS Update is now online at rps.uvi.edu/CES/NPSupdate.htm.

Back issues of NPS Update can be downloaded from this site in Adobe Acrobat pdf format. Clients will also be able to submit information to the newsletter through this website. You can still contact the newsletter editor, Julie Wright, UVI-CES, at (340) 693-1082 or jwright@uvi.edu.

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DPNR-CZM Implements New Computer Tracking System Database

DPNR's Coastal Zone Management Division (CZM) has implemented a Computer Tracking System (CTS) for leases and permits in order to meet the growing demand of the division's monitoring and accounting sections. The goal of the CTS is to provide staff with an easy method to locate, view and analyze lease and permit status.

The CTS database's main function is to allow users to easily obtain accurate and complete data on all CZM leases and permits. The database will also allow CZM to improve payment collection while providing more comprehensive and accurate reporting. Searches can be performed on the database to locate particular files, even if the data entered is incomplete.

Once entered, database information will be joined with the GIS program to take CZM and DPNR towards the next step of information recording and graphical viewing. For more information about CZM's database, contact Giselle Richardson, DPNR-CZM, at (340) 774-3320 ext. 5161 or visit the CZM website at www.vicomp.com.

Sea Grant Reports Alarming Water Quality Trends in Coastal NPS Pollution

A recent study partly funded by the National Oceanic and Atmospheric Administration's (NOAA's) Sea Grant Program has found that potentially harmful human viruses are sometimes present in near shore coastal waters in Southern California after rains. The study sampled twelve river mouths in Southern California and four of them, the Los Angeles, San Gabriel, Santa Ana and Tijuana river mouths, tested positive for the human adenovirus. ***Of special note was the fact that the presence of the virus did not correspond with high bacteria counts.***

The lead scientist in the study, Sunny Jiang, believes current water quality standards, which rely solely on bacteria testing, are "not adequately indicating human health risks... The presence of the virus does not correlate with high levels of bacteria. Therefore, you don't have a beach closure and are potentially exposing people to health risks." Visit www.seagrants.org/news/20010207_viruses.htm for more information on the study.

Volunteers Needed!

The Reef Ranger Project is looking for one or two adult "teacher-leaders" to assist with their "Dive into Earth Day" celebration in late April. Volunteers must know how to swim, snorkel, and SCUBA dive.

Reef Rangers is a hands-on/ minds-on marine and coral reef ecology program that supports students who are interested in science and the sea. To volunteer, please contact Paula Morgan, Director, at polly@unm.edu or (505) 265-2253.

Harmful algal blooms are on the rise nationwide according to a new report entitled the "National Assessment of Harmful Algal Blooms in U.S. Waters" recently released by NOAA and the National Science and Technology Council. Algal blooms are very harmful for marine life and can be deadly for people too. In particular, Southern California and Florida coastal waters have seen a marked increase in algal blooms. Farm runoff, sewage discharges, and other NPS pollution are large contributors to algal blooms. More information is available on NOAA's web page at www.noaanews.noaa.gov/stories/s584.htm.

Mapping Benthic Habitats in the Virgin Islands and Puerto Rico

NOAA researchers conducted a two-week survey of fish habitat utilization off southwest Puerto Rico and St. John this summer. Visual census counts by divers and netting were used to define patterns in fish habitat utilization. Underwater video and global positioning systems (GPS) were used to document areas of habitat. The survey complements benthic habitat maps that are being developed using expert interpretation of aerial photographs. This project is part of a larger study that began in 1999 and includes developing regional benthic habitat classification guides, maps of benthic habitat and species distributions, and determining the strength of spatial correlation between species and habitat types. This work will be used to determine if there is significant essential fish habitat (EFH) as defined by the Caribbean Fishery Management Council to consider these areas for designation as Marine Protected Areas (MPAs).

NOAA's on-going "Benthic Habitats of Puerto Rico and the U.S. Virgin Islands" mapping project has recently completed benthic maps of

the U.S. Virgin Islands. These maps are viewable at the NOAA/Biogeography website biogeo.nos.noaa.gov/projects/mapping/caribbean. A CD-ROM containing the USVI maps and associated imagery is currently under production and is anticipated to be completed in April 2001. The CD will allow scientists to use the completed Virgin Islands benthic maps and imagery prior to completion of mapping in Puerto Rico. All map and image files for Puerto Rico and the U.S. Virgin Islands, supplemental information (e.g. ground truth values), methods documentation, and other supporting materials will be included on a final CD-ROM due out this summer. Contact Matthew Kendall, at (301) 713-3028 x. 144 or Matt.Kendall@noaa.gov or Dr. Mark Monaco (301) 713-3028, ext. 160 or Mark.Monaco@noaa.gov for details.



Web Resources

Atlas of America's Polluted Waters (May, 2000). Provides a map of each state depicting surface waters that do not meet state water quality standards, as reported under Section 303(d) of the Clean Water Act. Visit www.epa.gov/owow/tmdl/atlas/ for details.

"Best Management Practices for Soft Engineering of Shorelines" is a new report now available detailing soft engineering practices – the use of ecological principles and practices to reduce erosion and safely stabilize shorelines while enhancing habitat, improving aesthetics, and saving money. To access the report, visit www.tellusnews.com/ahr/report_cover.html.

"Recommended Practices Manual: A Guideline for Maintenance and Service of Unpaved Roads." This manual describes and illustrates cost effective practices that can enhance stability and maintenance of unpaved roads while reducing sedimentation and improving water quality. To view the manual, visit

USDA Announces EQIP Sign-up

Sign up now until May 19, 2001 for the USDA Environmental Quality Incentive Program (EQIP). EQIP provides technical, cost-share and incentive payments to farmers that establish best management practices (BMPs) under 5- to 10-year contracts based on a conservation plan to conserve resources and protect the environment. Apply for EQIP at the USDA Service Center, Gallows Bay, St. Croix or call (340) 773-9146 x. 106.

www.epa.gov/owow/nps/unpavedroads.html.

LGEAN Toolbox. A new on-line toolbox has been launched on the LGEAN web site. The tools provided are designed to facilitate the environmental work of local government officials, including quick calculations of NPS water pollution from various development scenarios. For details, visit lgean.org/html/tools.cfm.

Marine Protected Areas Website. Under Executive Order #13158, NOAA and the Department of Interior have developed a new web site providing information on Marine Protected Areas, including a library and progress reports. For details, visit mpa.gov.

Model Ordinances for Water Quality Protection. EPA's web site now offers examples of ordinances addressing aquatic buffers, erosion and sediment control, open space development, storm water control, post-construction runoff control, and more. Also included are inspection check-lists and links to other related web sites. For details, visit www.epa.gov/owow/nps/ordinance.

National Water Quality Inventory: 1998 Report to Congress. This biennial report prepared under Section 305(b) of the Clean Water Act summarizes state and territory-reported water quality conditions in streams, lakes, estuaries, wetlands, coastal waters, and ground water. To view the report, visit www.epa.gov/305b/98report/index.html

PopPlanet website launched. The Population Reference Bureau (PRB) and the National Council for Science and the Environment (NCSE) have launched a new website to examine the relationship among population, health, and environmental issues. For details, visit www.popplanet.org.

Shaping the Land Through Smart Growth. "Growing Greener: Putting Conservation into Local Plans and Ordinances," is now available at www.islandpress.org/community/planning/greener.html.

Small Island Environmental Management Training Program. This set of materials on small island environmental management helps residents of small islands manage their environment and plan for sustainable development. Visit the UNEP Islands web site www.unep.ch/islands.html to download the set.

Source Water Awareness Media Tool Kit. The tool kit can be used to help raise community awareness about drinking water protection issues. It includes guidelines and promotional materials to help local communities launch a successful media campaign. For details, visit www.lgean.org/html/whatsnew.cfm?id=149.

Storm Water Best Management Practices Database. The database was developed by the American Society of Civil Engineers in cooperation with EPA to provide access to BMP performance data in a standardized format for over 90 BMP studies conducted over the past fifteen years. Visit www.bmpdatabase.org/ to view the database.

V.I. Flood Hazard Mitigation Plan. A final revision of this plan, produced by Island Resources Foundation, Inc. for the V.I. Territorial Emergency Management Agency and dated July 18, 2000, is available at www.egroups.com/files/VI--Flood_Watershed/ for review and use.

Virginia Study Indicates Storm Drains and Urban Streams Incubate Bacteria. A study recently released by the Northern Virginia Regional Commission (NVRC) and Virginia Tech indicates that E. coli bacteria regrow through cloning within storm drains and sediments of urban streams. The report can be downloaded in Adobe Acrobat pdf format from www.novaregion.org/pdf/Bacteria_Report.pdf

"Watershed Success Stories: Applying the Principles and Spirit of the Clean Water Action Plan." This new report highlights significant accomplishments in local community restoration efforts and provides information on thirty success stories. To view the report, visit www.cleanwater.gov/success/.

Available Grants



"Building Better Rural Places." A 2001 resource guide to federal programs offering assistance in agriculture, forestry, conservation, and rural community development is available at: www.attra.org/guide/index.htm.

Lindbergh Foundation Grants. Grants are awarded in categories including agriculture, conservation of natural resources, education, exploration, health, waste minimization & management, and aviation & aerospace. The maximum grant award is \$10,580. Visit www.lindberghfoundation.org for details.

National Geographic Society (NGS) Awards Grant. The NGS Committee for Research and Exploration awards grants for scientific field research and exploration. The committee is currently emphasizing multi-disciplinary projects that address environmental issues. Grant awards average \$18,000. For more information, visit <http://services.sciencewise.com/content/index.cfm?objectid=4695>.

North American Wetlands Conservation Council. The Council has two conservation grants for wetlands acquisition, restoration, and enhancement. This notice solicits requests from \$51,000 to \$1,000,000 per proposal. A separate notice will be issued later this year for small grant requests up to \$50,000 per proposal. Visit services.sciencewise.com/content/index.cfm?objectid=4543 for details.

Upcoming Events

Local

April 18-20, 2001. **St. Croix Eco Fair**, "Taking Pride in the Virgin Islands," St. George's Village Botanical Gardens. Contact SEA at (340) 773-1989 for details.

April 19, 2001. **Root Crops Production Workshop**, UVI St. Croix Research & Extension Center Room 133, 7:00-9:00 pm. Contact Stafford Crossman, UVI-CES, at (340) 692-4054.

May 15 & 17, 2001. **Passion Fruit Production Workshop**, 7:00-9:00 pm., UVI St. Croix Research & Extension Center Room 133 & UVI-CES St. Thomas Conference Room, respectively. Contact Clinton George, UVI-CES, at (340) 692-4071 for details.

May 16-18, 2001. **7th Annual Wider Caribbean Solid Waste and Recycling Conference, Training and Exposition: ReCaribe 2001**, USVI, Emerald Beach Resort, St. Thomas. For details, visit www.islands.org/reCaribe or contact Clean Islands International at reCaribe@islands.org (410) 647-2500.

May 22, 24, 2001. **Understanding Your Septic System**, UVI-CES St. Croix and St. Thomas, respectively. For details, contact Julie Wright at (340) 693-1082.

June 3, 10 & 16, 2001. **Drip Irrigation Workshop**, UVI-CES on St. Croix, St. Thomas and St. John, respectively. Contact Stafford Crossman at (340) 692-4054 for details.

June 5, 2001. **Organic Pest Control**, UVI-CES St. John. Contact Dr. Jeff Keularts at (340) 692-4052 for details.

June 18-21, 2001. **Managing Beaches in the Caribbean: Investing in Our Future**, University of Puerto Rico, Sea Grant. For details, visit seagrant.uprm.edu or contact Ruperto Chaparro at r_chaparro@rimac.uprm.edu

June 19, 21 & 26, 2001. **Safe & Healthy Home Workshop**, UVI-CES St. Croix, St. Thomas and St. John, respectively. Contact Julie Wright at (340) 692-1082 for details.

June 27-28, 2001. **Cucumber Production Workshop**, UVI-CES St. Croix and St. Thomas, respectively. Contact Stafford Crossman at (340) 692-4054 for details.

June 28, 2001. **Cultural and Ecological History of Salt River**, UVI St. Croix Research & Extension Center Room 133. Contact Olasee Davis, UVI-CES, at (340) 692-4053 for details.

National

April 26, 2001. **Watershed 2002 Call for Abstracts** submittal deadline. Wyndham Resort & Spa, Fort Lauderdale, FL, February 23-27, 2002. For details,

