

VI NPS Update

Nonpoint Source Pollution Committee Newsletter

Vol. 3, No. 3

October 2000

DPNR-DEP Announces New Nonpoint Source Pollution Management Grant Projects

The Department of Planning and Natural Resources Division of Environmental Protection has awarded funding to the following new projects under §319 (nonpoint source pollution management) of the Clean Water Act. Contact Syed Syedali, DPNR-DEP, at (340) 773-0565 for information on the §319 grant program.

The Little LaGrange Flood and Erosion Remediation and Demonstration Project: Annaly Farms Senepol, Inc., \$65,000.00. A two-phase project to stabilize and revegetate a 120-foot section of LaGrange gut, which drains the second largest watershed on St. Croix. The project will manage and enhance the flow of water through the gut, control streambank erosion and provide a secure and reliable vehicular access to the Lawaetz Museum, listed on the National Register of Historic Places.

Maho Bay Watershed Road Erosion Reduction: Friends of the Virgin Islands National Park, \$51,000.00. This project will implement best management practices (BMPs) and demonstrate economically achievable sediment reduction on a 453-foot section of a steep, heavily traveled road between Francis Bay and Maho Bay camps.

V.I Nonpoint Source Committee Operating Budget: University of the Virgin Islands Cooperative Extension Service, \$5,000.00. Funding to support the Committee's day to day operations overseeing the Nonpoint Source (NPS) Management Program.

St. John Recycling Projects: Good for St. John Inc., \$16,761.00. A project to implement battery and glass recycling to salvage recyclable waste on St. John.

Implementing Tools for Nonpoint Source Management Practices in St. John, US Virgin Islands: Island Resources Foundation, \$40,000.00. This project will create GIS-based nonpoint source planning tools for St. John to allow users to analyze the impact of proposed or designed nonpoint source BMP's in the local erosion and sediment generation environment.

John's Head Road 319 Demonstration Project: Catherineberg Owners Association, \$53,000.00. A project to mitigate erosion on John's Head Road, St. John, by trapping and filtering storm water runoff and reducing volume.

The following ongoing projects from Fiscal Year 1999 will also be funded:

- * **NPS Pollution Awareness and Education Program:** Boys and Girls Club of the Virgin Islands, \$60,376.00.
- * **Territorial Biological Monitoring Program:** University of the Virgin Islands Center for Marine & Environmental Studies, \$93,669.00.
- * **Mangrove Restoration at Sugar Bay:** St. Croix Environmental Association, \$53,358.00.
- * **Nonpoint Source Education for St. Croix Youth:** University of the Virgin Islands Marine Advisory Service, \$32,763.00.
- * **Multi Year Monitoring Strategy:** U.S. Geological Survey, \$91,650.00.
- * **Erosion and Sedimentation Control Education:** University of the Virgin

Islands Cooperative Extension Service, \$20,000.00.

- * **Nonpoint Source Annual Conference:** Virgin Islands Resource Conservation and Development Council, Inc., \$60,000.00.

Hydroseeding Takes Root on St. Thomas

As part of its program to promote erosion control in the Virgin Islands, the UVI Cooperative Extension Service (CES) has assisted two successful hydroseeding projects this year on St. Thomas. One project stabilized a steep slope in a homeowner's yard and the other seeded the new soccer field at Montessori School.

Mr. Cornell Caseman-Williams learned about hydroseeding as a result of the "**Practical Approaches to Effective Erosion Control**" training workshop held by UVI-CES and VI RC&D in May 1998. During the workshop, steep slopes at the entrance to the Market Square East shopping center, which his employer was building, were hydroseeded with bermuda grass. He was so impressed with how well the practice worked and the way that this properly designed and implemented erosion control practice greatly enhanced the property that he was motivated to conduct a similar seeding project at his home.

Mr. Caseman-Williams contacted CES's Dale Morton for information on using the hydroseeder and seed and mulch sources. Mr. Morton gave him a list of vendors for the materials and certified hydroseeders. The yard was seeded in February and within 2



Home hydroseeding site when seeded (above) and after 2 months growth (below).

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months had good grass cover. States Mr. Caseman-Williams, "I am very pleased with the results, and am working on maintaining a beautiful, healthy lawn."

For years the Montessori School PTA had been planning to establish a soccer field at the school. They sent three PTA members to last year's **Hydroseeding Certification Workshop** so that they would have someone trained and certified to use the hydroseeder. Once excavation for the field was completed, the PTA contacted CES' Mr. Morton and arranged for a site visit so that he could recommend the appropriate types of seed and mulch to use and suitable planting time.

Because they had installed an underground pop-up irrigation system, the PTA decided to seed before the beginning of the rainy season and seeded at lower rate than recommended. Initially, germination was slow and many members were concerned that the project would be a failure. However, during a follow up visit, Mr. Morton noticed that much of the grass was germinating and so he encouraged them to water the field more frequently. This was done and the seed germination was accelerated. Since that time, the increase in rainfall has ensured establishment of the new turf. As a result, the Montessori School can now boast an excellent field for its soccer competitions and other games.

Hydroseeding Certification Training workshops are scheduled for October 17th and 19th on St. Croix and St. Thomas, respectively. The V.I. Hydroseeding Project is sponsored by DPNR, UVI, and USDA-NRCS. For more information on hydroseeding or to register for a workshop, contact UVI-CES at (340) 693-1080 on St. Thomas or (340) 692-4080 on St. Croix.

V.I. Resource Managers Receive Training on Storm-Caused Coastal Erosion

Twenty-four USVI and BVI resource managers participated in a two and a half day training workshop on coastal erosion sponsored by the UVI Water Resources Research Institute (WRRI), Marine Advisory Service (VIMAS), and Cooperative Extension Service (CES) September 14-16 at the UVI St. Croix campus. The seminar was led by Dr. David Bush and Dr. Robert Young, who conduct coastal zone management courses throughout the Caribbean.

Participants learned how to identify and assess coastal hazards, how to monitor coastal changes, impacts of erosion and sedimentation from storms, risk assessment and property damage mitigation during the first day and a half of the



Workshop participants examine coastal erosion at Shoys beach on St. Croix's northeast shore.

workshop. The classroom training sessions were followed by two half-day field excursions. The group visited seven coastal sites around St. Croix to examine impacts of erosion and of hard stabilization structures. The group also discussed proposed development plans for several sites and how to best develop particular sites while mitigating for effects of coastal hazards such as erosion. Marcia Taylor, St. Croix Marine Advisor, found the workshop informative and helpful. "It was really useful to visit a site where structures are being installed and analyze whether or not they will work and why. Any type of hard stabilization structure will alter the movement of sand, and therefore affect erosion, throughout an entire bay, so planning has to be done on a case-by-case basis." For further information on the workshop, contact Marcia Taylor, UVI-VIMAS, at (340) 778-1112.

EPA Announces New Pollution Prevention Center

The Caribbean P2RX Center is a consortium including the University of Puerto Rico at Aguadilla, the Metropolitan University of Puerto Rico, the University of the Virgin Islands and EPA Region 2, to promote pollution prevention education and ideas. The mission of the P2RX Center is to generate an accessible electronic data base on pollution prevention information and to conduct workshops and seminars that promote the subject tailored to the Caribbean. The Center will also invite participation by the wider Caribbean region. The P2RX Center is funded by EPA's Pollution Prevention program.

PUBLIC NOTICE - NEW SEPTIC SYSTEM RULES & REGS

DPNR-CZM reminds the public that new rules and regulations have been promulgated for onsite sewage disposal systems (septic systems). The promulgated rules and regulations are available for public review. Public hearings for these rules and regulations are being planned for October.

The new rules and regulations are designed to reduce the amount of pathogens (bacteria and other harmful micro-organisms) and other pollutants that enter our environment through the failure of traditional leach fields or seepage pits. For further information, contact Bill Rohring, DPNR-CZM, at (340) 774-3320.

The P2RX Center's inaugural activity in the Virgin Islands will be hosted by UVI on the St. Thomas Campus October 26 at 7:00 p.m. A seminar/workshop will be presented entitled "Evaluation of Landfill Gas Cleanup Technologies for Use with Fuel Cells." For further information on the P2RX Center, contact Jim Casey, EPA Region 2 Caribbean Office, at (340) 714-2333.

EPA Marine Research Ship to Visit Caribbean

EPA's marine research ship, the OSV Anderson, will be traveling to the Caribbean to conduct water quality surveys in nearshore waters of Puerto Rico and the Virgin Islands from mid-October through December 2000. This joint effort with NOAA is a follow-up to survey work initiated to carry out the mandate of the President's Executive Order on Coral Reef Protection.

The OSV Anderson will be in the Virgin Islands after Thanksgiving through December 2000 to perform identified projects. During that time, there will be opportunities for ship tours and educational sails for school groups, NGOs, local government agencies, and other civic organizations and individuals interested in visiting with EPA and NOAA personnel. For more information, contact Jim Casey, U.S. EPA Caribbean Office, at (340) 714-2333.

EPA Approves V.I.'s NPS Management Plan

The U.S. Environmental Protection Agency (EPA) has recently approved the Virgin Islands Nonpoint Source (NPS) Pollution Management Program Plan developed by DPNR. Approval is granted to states whose plans have addressed the nine key elements of an effective NPS Program as defined in EPA's May 1996 Nonpoint Source Program and Grants Guidance for Fiscal Year 1997 and Future Years.

EPA approval allows DPNR to apply for fiscal year 2000 §319 incremental funds. These funds are reserved for nonpoint source implementation projects within Category I priority watersheds, as identified in the Virgin Islands Unified Watershed Assessment. For more information on DPNR's NPS Pollution Management Program or the Unified Watershed Assessment, contact Syed Syedali at (340) 773-0565.

Mangrove Restoration Begins at UVI Wetland

Reserve

The V.I. Marine Advisory Service (VIMAS) has recently begun a project to replant black and white mangroves at UVI's Wetlands Reserve, located just east of the HOVENSA Oil Refinery on the south shore of St. Croix. The UVI Wetlands Reserve is a 52-acre wetland area managed by UVI's Center for Marine & Environmental Studies through the St. Croix VIMAS office. It has been set aside for use as a wildlife reserve and non-destructive education and research activities.



Tray of white mangroves VIMAS is raising for the UVI Wetlands Reserve.

Improvements have been made recently, including interpretative sign installation, replacement of lost plant tags, and fence construction along the eastern border of the Reserve. Fencing the Reserve was a condition of continued program funding by the late Mr. Leon Hess. It has served to provide additional protection to the Reserve from inappropriate uses of the site such as driving throughout the Reserve, harvesting of animals and excessive littering.

One condition of the DPNR permit to install the fence was to plant black and white mangroves to replace those that were either trimmed or removed during the fencing process. VIMAS staff collected seeds of both species and are currently growing them to a suitable size for transplanting. Not only will the restoration effort benefit the Reserve's resident species, but it will also provide a great learning opportunity for the hundreds of students and others that participate in tours of the site each year. For more information on UVI's Wetland Reserve, please contact the St. Croix VIMAS office at (340) 778-1112 or (340) 779-3141.

Update on Sugar Bay Mangrove Restoration

Last year, SEA and VIMAS began a three-year project to reforest Sugar Bay (Salt River, St. Croix) with mangrove trees. The reforestation activities are continuing, and participants were pleased to see many young, vigorous red mangroves popping out of the tops of their

protective PVC encasements at this year's first planting in August. However, they were disappointed to discover that very few propagules planted in trial cardboard encasements survived. The project partners are trying to determine why.

In January 2000, project coordinator Carol Cramer-Burke reported similar growth rates in both types of encasements. However, the situation had changed dramatically by early July. At that time, Cramer-Burke, along with Marcia Taylor and Dr. Stuart Ketcham, observed that of 43 cardboard encasements that were monitored, only four contained living red mangroves.

Cramer-Burke, Taylor and Ketcham believe the die-off may have resulted from the soil in the cardboard encasements drying out more rapidly than in the PVC due to a "wicking" action of the paper. This may have also increased salt concentrations inside the cardboard encasement to levels higher than the mangroves could tolerate. It is also possible that there is some type of toxic material in the cardboard. The partners believe the first cause is more likely since many of the propagules were growing inside the cardboard encasements prior to dry weather.

From this information, the project partners decided to plant all propagules in PVC encasements this year.

While everyone hopes to identify a viable substitute that is comparable to PVC, the cardboard encasement will need further review.

One more weekend planting has been scheduled for October 21 to October 22. Cramer-Burke plans to plant 2000 propagules that weekend. Volunteers are needed! Come and see the next generation of mangroves growing in Sugar Bay. For more information or to participate in the program, contact Carol Cramer-Burke, SEA, at (340) 773-1989, or VIMAS at (340) 778-1112 or (340) 779-3141.

Available Grants



EPA Environmental Education Grants.

Educational agencies, colleges, universities, state educational or environmental agencies, not-for-profit organizations and noncommercial educational broadcasting entities are eligible. For more information, visit EPA's website at <http://www.epa.gov/enviroed/grants.html>

National Research Initiative Competitive Grants. Fiscal year 2001 applications are available for the National Research Initiative (NRI) Competitive Grants Program, administered by USDA-CSREES. Proposals are invited for competitive grants in agricultural, forestry, and related environmental sciences. The first deadline is November 15, 2000. Visit <http://services.sciencewise.com/content/index.cfm?objectid=149> for more information.

North American Wetlands Conservation Act: Request for Small Grants. Application deadline is December 1, 2000. The U.S. Fish and Wildlife Service and the North American Wetlands Conservation Council seek proposals for wetland and wetland-associated upland conservation projects. For information, visit <http://alerts.sciencewise.com/swalert/doi/opp/fr06140001.htm> or contact Dr. Keith A. Morehouse at (703) 358-1784.

Watershed Assistance Grants (WAG). The WAG program supports the growth and sustainability of local watershed partnerships in the United States. A "watershed partnership" includes interested and affected parties in the identified watershed. This coalition of targeted stakeholders will serve to promote watershed protection and/or restoration by resolving identified watershed problems and issues. Visit <http://www.rivernetwork.org/wag2000.htm> for more information.

EPA Wetland Program Development Grants. Fiscal Year 2001 program priorities are: monitoring and assessing wetlands' status and condition; and improving the effectiveness of compensatory mitigation. Contact Shanna Draheim, U.S. EPA Office of Wetlands, Oceans, and Watersheds, at (202) 260-6218 or draheim.shanna@epa.gov for more information.

Upcoming Events

Local

October 15, 2000. **World Food Day.** UVI Research & Extension Center St. Croix, from 12:00 to 6:00 p.m. Contact UVI-CES at (340) 692-4080 for more information.

October 17&19, 2000. **Hydroseeding Certification Training Workshops.** St. Croix and St. Thomas, respectively. Contact Dale Morton, UVI-CES, at (340) 693-1086 to register.

October 21-22, 2000. **Sugar Bay Mangrove Planting.** St. Croix. Contact Carol Cramer-Burke, SEA, at (340) 773-1989, or VIMAS at (340) 778-1112 or (340) 779-3141.

November 2 (eve.) & 5 (aft.), 2000. **Home Composting Workshop.** UVI St. Thomas campus. Contact UVI-CES at (340) 693-

1080 for more information or to register.
 November 11-12, 2000. **St. Thomas - St. John Agriculture & Food Fair.** UVI Reichhold Center parking lot. Contact UVI-CES at (340) 693-1083 for information.
 November 15, 2000. **GIS Day.** Contact Stevie Henry, UVI-CDC, at (340) 693-1033 for more information.
 November 29, 2000. **Hot Pepper Production Workshop.** UVI-CES Office, St. John (upstairs from the old Joe's Discount). Contact UVI-CES at (340) 693-1080 for information.
 December 6-7, 2000. **Sixth Annual V.I. Nonpoint Source Pollution Conference:** "From Ridges to Reefs: New Projects and Programs for a New Millennium." Divi Carina Bay Resort and Casino, St. Croix, USVI. Contact Julie Wright, UVI-CES, at (340) 693-1082 an abstract submittal form or to register or visit <http://rps.uvi.edu/CES/VINPSconf.2000.htm>

National

October 17-19, 2000. **NEMO University,** workshop on Nonpoint Education for Municipal Officials. CT. Contact John Rozum, at jrozum@canr.uconn.edu or (860) 345-4511 for information.
 November 3-5, 2000. **WaterWeb Consortium's Third Water Information Summit: Status, Challenges, and Future Opportunities of Internet-Based Communications Supporting Sustainable Water Resources Management,** Hyatt Regency Hotel, Miami, FL. Visit www.waterweb.org for more information.
 November 11-16, 2000. **7th International Conference on Wetland Systems for Water Pollution Control,** Lake Buena Vista, FL. For more information visit the website at <http://www.ifas.ufl.edu/~conferweb/wpc/>.
 November 28-30, 2000. **EPA Storm Water Training Short Courses.** Tampa, FL. Two-day training on the EPA storm water

program (Phases I and II) and one-day training on Storm Water Phase II Rule permitting requirements. Visit www.epa.gov/owm/sw/training/ for information or to register.

February 4-8, 2001. **National Association of Conservation Districts Annual Meeting,** Fort Worth, TX. For information, contact Robert Raschke, (303) 988-1810.
 February 5-9, 2001. **32nd Annual International Erosion Control Association Expo.** Las Vegas, NV. Visit www.ieca.org for more information.
 March, 2001. **Winning Through Wise Land Use Conference,** TN. For information, contact Larry Blick, NRCS, at (615) 736-5490 or lblick@tn.nrcs.usda.gov
 March 25-29, 2001. **7th Federal Interagency Sedimentation Conference.** Reno, NV. Visit http://water.usgs.gov/wicp/SED7FISC_crf.html for information.

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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