



Selected Regional Impacts - Watershed Management

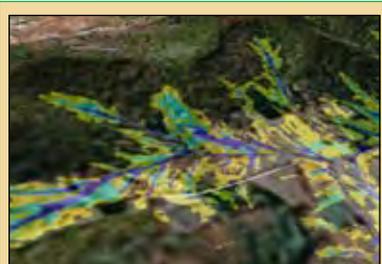
The Regional Priority Area of Watershed Management has different facets across the region. Several example projects with corresponding impacts are highlighted.

The **Restore-a-Waterway** program in New Jersey has been established to provide hands-on technical assistance to citizen volunteer groups wanting to take action in restoring the quality of a waterway and increasing public knowledge in the community. Restore-a-Waterway can provide this assistance in a variety of ways depending upon the needs of a particular group, including: physical, biological and chemical monitoring; interpretation and analysis of data; designing solutions to mitigate the identified problems; and securing funds to implement the designed solutions. Over \$125,000 has been secured from non-profit foundations in collaboration with watershed groups to date. Restore-a-Waterway also conducts technical workshops on watershed restoration topics concurrently with hands-on collaboration.



Watershed Restoration and Protection Planning Workshop in January 2007 at the Rutgers EcoComplex (co-sponsored by NJ Sea Grant)

An integrated research, education and extension project on **Variable Source Area (VSA) hydrology** is currently being conducted. VSA hydrology is the concept that runoff-generating areas in the landscape will vary in location and size over time. Manure application, fertilizers, pesticides, and other human-applied substances can pollute streams, especially if applied to VSAs when the ground is saturated. Knowing which areas are more prone to runoff in a given watershed helps land users to make better decisions regarding application of substances and placement of best management practices. The initial research study for the Town Brook watershed in New York has led to a comprehensive website (<http://soilandwater.bee.cornell.edu/>) with tools available for download. The available research findings and tools are targeted to extension professionals and land use managers requiring innovative approaches to nutrient management planning.



Google Earth image of the Variable Source Area hydrology analysis for the Town Brook Watershed. (Yellow is <0.2 cm, teal is 0.2 to 0.4 cm, blue is >0.4 cm; average runoff depth)



Lake Loiza in Puerto Rico. The Lake Loiza Watershed is the focus of the Puerto Rico Watershed Stewardship Program along with the Lake La Plata Watershed.

The Puerto Rico **Watershed Stewardship Program** is a partnership between the United States Environmental Protection Agency, the Puerto Rico Aqueduct and Sewer Authority, the Puerto Rico Environmental Control Board and the Puerto Rico Department of Health. The Regional Water Coordination Program (RWCP), represented by Rutgers University and the University of Puerto Rico (UPR), has participated in this initiative since its inception three years ago. The program, initially focusing on two key watersheds, has identified discharges from onsite wastewater treatment systems and phosphorus loading from household laundry detergents as major sources of impairment. A demonstration onsite wastewater treatment system was installed and will complement training sessions to commence early 2008. The trainings will also be conducted in the US Virgin Islands, with local facilitation provided by the University of the Virgin Islands.

