

monitoring groups to help track human sources of fecal coliform. All of these case studies discussed the need to first conduct field surveys to identify potential pollution sources prior to using MST technologies.

Jeffrey Potent, EPA Liaison to the Land Grant Universities, provided an overview on policy implications of MST followed by a group discussion on building an MST tool box for New Jersey. In the areas where good MAR libraries are already built, continuing to use the MAR technology can be a cost-effective MST technique. In areas where library databases are not already in existence, other MST technologies may prove to be more cost-effective in identifying and quantifying fecal coliform sources.

If you need more information on MST, we have established a resource page on our [www.water.rutgers.edu](http://www.water.rutgers.edu) web site. If you are interested in joining the New Jersey Microbial Source Tracking Working Group, please feel free to contact Bill Sciarappa at [sciarappa@aesop.rutgers.edu](mailto:sciarappa@aesop.rutgers.edu).

**If you would like to be removed from our mailing list, please contact us at 732-932-3482 or [cburdick@cep.rutgers.edu](mailto:cburdick@cep.rutgers.edu).**



Snow Geese contributing to the MST project in Cumberland County

The Water Resources Program stores presentations and project updates at the following website: <http://water.rutgers.edu>

The EPA publishes a periodic report on the condition of the water-related environment, control of NPS, and the ecological management and restoration of watersheds at: <http://www.epa.gov/OWOW/info/NewsNotes/>

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# Water Pages



A Quarterly Newsletter Produced by the Rutgers Cooperative Research & Extension Water Resources Program: Creating Solutions for Water Quality Issues in NJ

## RESEARCH WATERSHEDS

*INTEGRATING RESEARCH, EDUCATION AND EXTENSION IN WATERSHED MANAGEMENT*

The RCE Water Resources Program attempts to integrate research, education and extension in all our initiatives. To this end, we have established "Research Watersheds" across the State where we have received a State or Federal grant to complete a research project. We then direct extension programming and educational (graduate and undergraduate) efforts into these same watersheds. This synergistic effort of integrating research, education and extension projects within a watershed has the best potential for truly making a difference in the quality of life of the residents in that watershed.

Over the last ten years, Christopher Obropta has worked closely with the Union County Parks Department, Union County Engineering Department, the Rahway River Association, the City of Rahway, and the NJDEP Watershed Management Manager for this area. As a result of these relationships, the RCE Water Resources Program was asked to apply for a NJDEP 319(h) grant to prepare a Regional Stormwater Management Plan for the Robinsons Branch Watershed, a tributary to the Rahway River. This research project was awarded to our program in 2002.

This research project has a strong extension component that involves working with nine municipalities, two counties, and non-governmental organizations to develop a Regional Stormwater Management Plan. To strengthen these activities, RCE Water Resources Program began working with the Union County RCE to launch an extension program entitled "Stormwater Management in Your Backyard." As part of this effort, 30 Master Gardeners were trained on how to build rain gardens, and five demonstration rain gardens were constructed. Today these rain gardens are being used as educational tools by the Union County RCE.

To complement this research and extension effort, two undergraduate student projects were developed in the watershed. The first was an independent study to analyze water reuse possibilities at the many golf courses in this watershed. The second was a bioresources engineering senior design project to develop a stream restoration plan for Pumpkin



Patch Brook, a tributary to the Robinsons Branch. The first project has attracted the attention of the Union County Engineering Department and will likely lead to an additional project. The second provided supplemental information for the Watershed Restoration Plan being developed for the 319(h) grant.

The Robinsons Branch Research Watershed is just one of our eleven research watersheds and a good example of integrating research, education, and extension to improve water quality and eliminate flooding issues. For more information, please contact Chris Obropta at [obropta@envsci.rutgers.edu](mailto:obropta@envsci.rutgers.edu).

