

## WMA 19 Priority Stream Segment

**WMA 19 Segment Initial of Interest:** North Branch Rancocas Creek between Pemberton and Mount Holly.

**Background:** A comprehensive management plan for the Rancocas Creek watershed has been adopted by the Watershed Management Area 19 Public Advisory Committee (PAC) and endorsed by the Burlington County Board of Chosen Freeholders. Attached is a copy of "Clean and Plentiful Water: A Management Plan for the Rancocas Creek Watershed," a 30-page outline of the challenges facing the creek and its tributaries, and strategies to address those concerns. The report includes a watershed characterization and assessment report prepared by TRC Omni Environmental Corporation on CD-ROM. Additional appendices to the Plan include a buffer assessment, a pesticide survey report, model land use ordinances and sub-committee reports.

The report concludes that dissolved oxygen, total dissolved solids and nitrogen levels in the watershed are generally good, and that low pH levels may in most cases be naturally occurring, given the natural acidity of the headwaters in the pinelands. In addition, a pesticide "snapshot" survey carried out by the University of Medicine and Dentistry of New Jersey showed extremely low concentrations of the analyzed pesticides in all sampling locations.

However, fecal coliform, a potential health hazard, and phosphorus, which can lead to eutrophication of a waterway, are a concern throughout the watershed. Failing septic systems along the North Branch of the Rancocas Creek are considered a major cause of high fecal coliform levels. The segment of the North Branch between Pemberton and Mount Holly is listed as impaired on the 2004 Integrated List (Sublist 5 with Priority Ranking) for fecal coliform, phosphorus, pH, arsenic, copper and lead (all high priority ranking).

NJDEP's Bureau of Monitoring and Management (BMM) in coordination with the Division's Bureau of Environmental Analysis and Restoration (BEAR) has initiated Coliphage sampling along this segment to determine the source of fecal contamination (human vs. non-human). The results of this sampling are anticipated to be available in the summer of 2004. If, as anticipated, the source of the fecal contamination is human, BMM plans to initiate Multiple Antibiotic Resistance (MAR) sampling. MAR breaks down fecal sources by species, thereby giving percentage totals by species. MAR has only been proposed for three (3) watersheds in New Jersey.

In addition, Section 604(b) funds have been awarded to Burlington County to assist thirteen municipalities along the Route 206 corridor with guiding growth for better use of assets and resources, preservation of farmlands and open space and water resource management. The objectives of this project are to: 1) map sensitive environmental resources (T&E habitat, well head, source water, impaired stream segments, as well as any sites noted by municipal reps) in the region to inform the overall pattern of planned growth and plan for conservation or protection, as appropriate. 2) Plan for sustainable water supply needs. 3) Model and report the expected impacts to stormwater quality and quantity due to planned development. 4) Investigate the need for wastewater infrastructure improvements and make recommendations for appropriate infrastructure development. 5) Convene municipal representatives to develop solutions and

recommend implementation strategies to address the fecal coliform issue on the North Branch between Pemberton Borough and Mount Holly. NJDEP is to provide additional data for this effort, including, but not limited to: speciation, more sampling points and dye testing along the North Branch.

The Rancocas Creek Watershed Plan suggests several implementation strategies to address these problems, including a variety of stormwater management techniques, septic maintenance seminars, public education programs, open space preservation and restoration initiatives and better wildlife habitat management.

**Partners:** Burlington County, WMA 19 PAC, the Rancocas Conservancy, the Burlington County Soil Conservation District and the Rancocas Watershed Association.

**Listed Impairments:** listed as impaired on the 2004 Integrated List (Sublist 5 with Priority Ranking) for fecal coliform, phosphorus, pH, arsenic, copper and lead (all high priority ranking).

**Plans for the Initial Work:** Several thousands of dollars of local, State and federal funds have been committed to, and continue to be spent in the Rancocas Watershed, focusing on the problems along this segment of the North Branch. A large percentage of these funds are earmarked for planning efforts, in-stream sampling and some minor restoration activities along a few of the tributaries. Very little if any funds have been expended on source trackdown, in stream reconnasants and stream restoration efforts.

Burlington County Water Resources Coordinator has committed to work with the Department and all interested stakeholders to initiate these efforts in the watershed, especially along this segment. Documenting problems and embarking on these initiatives will go a long way in the process of convening municipal representatives as planning efforts continue.

Some in-stream reconnaissance work has been performed by the Americorps Watershed Ambassadors over the past two years. This stretch of the Rancocas Creek was used to train Americorps Ambassadors in recognizing and identifying fecal coliform sources in January 2003. Although numerous, these potential sources were never documented in a format that could be useful in any planning or restoration effort.

**North Branch Rancocas Creek Restoration Plan:** The partners in WMA 19 have agreed to help with this restoration and planning effort as follows:

1. Joining with our partners and the Americorps Ambassador for WMA 19, all outfalls, discharges and eroded stream banks will be documented via an in-stream visual assessment utilizing Global Positioning System (GPS) units. Using Geographic Information System (GIS) software, these locations can be identified and placed on an aerial map of the segment. It is anticipated that this can be accomplished utilizing existing Division equipment at no cost in early Spring 2004.
2. A Rosgen Analysis of the identified eroded stream bank segments will be performed in Mid to Late Spring 2004. It is anticipated that volunteers, the County and Department staff will be able to help in this effort at no cost.

3. Based on the results of the Rosgen Analysis, the initial \$25,000 will be spent to start addressing the most severe problems along the segment. Costs are anticipated to be lowered by the use of volunteers, County and Department staff.
4. Additional restoration and Best Management Practices (BMP's) will be employed as identified in this initiative and as the Route 206 Smart Growth Planning initiative evolves.

**Additional information:** To facilitate implementation, Burlington County Water Resources Coordinator Gina Berg continues to meet with groups of municipal officials throughout the watershed to familiarize them with the plan's objectives and findings and to seek their involvement in the implementation phase.