

## **Using Colilert® to Monitor the Impacts of Wet Weather Pollution Sources**

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### **Biographical Sketch of Authors**

Mindy K. Garrison is a graduate of Morehead State University with a BS in Environmental Science and has been employed as an Environmental Specialist for the Ohio River Valley Water Sanitation Commission for the last two years. She coordinates the Contact Recreation Sampling, Ambient Water Quality Monitoring, and the abatement of Combined Sewer Overflows. Peter A. Tennant is employed as Deputy Executive Director for the Ohio River Valley Water Sanitation Commission and is responsible for the management of the technical programs and implementation.

### **Abstract**

The Ohio River Valley Water Sanitation Commission (ORSANCO) has conducted several studies of the impacts of wet weather pollution sources (ie, combined sewer overflows, storm water, nonpoint sources) on Ohio River water quality. Results indicate that the most significant impacts are on bacteria levels. In order to provide sufficient data for modeling purposes, it is necessary to collect several hundred bacteria samples during a storm event. This places a considerable strain on the laboratory. In order to ease the burden, ORSANCO utilized the Colilert® method as the mainstay in two of the studies. US EPA has accepted this method for use in drinking water programs, but not for ambient monitoring or NPDES purposes. It offers advantages of less hands-on time and less glassware requirements than the traditional method.

All samples collected in the two studies were analyzed by the Colilert® method. Duplicates of ten percent of the samples were also analyzed by the traditional method. Results by the two methods were compared to determine if the Colilert® method could provide acceptable results. The comparison indicated a high degree of agreement between the two methods.