

BACTERIA MONITORING PILOT STUDY

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ABSTRACT

The Pine Creek Watershed has been the focus of a large-scale bacteria monitoring pilot project in Pennsylvania. Pine Creek is a tributary to the lower Allegheny River and drains 67 square miles. Diverse land uses in the watershed and increased land conversion to residential use in the northern portion of the watershed provide stressors to the main stem and its tributaries. Flooding is a significant problem and sewer overflows impact water quality. The Pine Creek Watershed is a Pennsylvania Department of Environmental Protection (DEP) priority watershed in which there is a strong and active citizen presence.

This presentation will discuss the development and completion of the Pine Creek Pilot Project, which included collaboration between multiple partners. Local, state and federal government, citizens and organizations worked together to design and implement a monitoring plan that addresses the recreational use attainment status for the Pine Creek Watershed. Volunteers collected bacteria samples at 20 sites throughout the watershed during the recreational season (May-September 2007). Bacteria samples were transported to and analyzed by the Allegheny County Sanitary Authority (ALCOSAN) laboratory with the assistance of regional DEP staff. Analysis of the laboratory results will enable the DEP to determine whether Pine Creek is meeting recreational use standards. In addition, data will be modeled to answer questions that will impact the protocols used to conduct further bacteria assessments throughout the state. This pilot study may be used as a model in Pennsylvania for future efforts with citizen volunteers.

KEYWORDS

Bacteria monitoring, recreational use attainment, volunteers, Pine Creek, collaboration, pilot study.