

Indiana's Surface Water Quality Monitoring Strategy

Stacey L. Sobat

Indiana Department of Environmental Management (IDEM), 100 N. Senate Ave. P.O. Box 6015 (Shadeland), Indianapolis, IN 46206-6015

Biographical Sketch of Author

Stacey Sobat is an environmental manager in the Office of Water Quality within the Indiana Department of Environmental Management's Biological Studies Section. Since 2000, she has served as project leader for the probabilistic fish community-sampling program. Stacey is a field and laboratory supervisor for fish community sampling. She also manages the data collected to calculate Index of Biotic Integrity Scores using Indiana Reference Conditions, assesses the condition of waterbodies as attaining or impaired for aquatic life use, and works closely with other staff in the Assessment Branch to make predictions of the overall health of the watersheds studied.

Abstract

Following the guidance of the Clean Water Act, Indiana has declared "...to restore and maintain the chemical, physical, and biological integrity of the waters of the State" [327 IAC 2-1-1.5]. In 1990, the reality was that past practices and resources were not sufficient to meet the State's goal; thus, the Surface Water Quality Monitoring Strategy was developed in 1995 to generate the primary data necessary to assess the integrity of Indiana's rivers, streams, and lakes for designated uses. The Strategy focuses on a watershed approach for addressing water quality issues and uses a five-year rotating study cycle of all major river basins in the State. The Strategy is designed to provide technical data and information in support of the Indiana Integrated Water Monitoring and Assessment Report (a combination of the Section 305(b) Water Quality Report and the Consolidated List including Section 303(d) List of Impaired Waters), National Pollutant Discharge Elimination System (NPDES) permitting program, drinking water source protection activities, and the annual Fish Consumption Advisory. Sampling programs that provide the data include: fixed station monitoring; sampling from statistically selected sites for biological, chemical, and physical data; fish and macroinvertebrate community analysis; fish tissue and sediment contaminant testing; pesticide measurements; bacteriological sampling; site specific sampling in support of NPDES permitting program; and special projects such as trace metals and Total Maximum Daily Loads (TMDL) sampling. This oral presentation will cover the Strategy components (Planning, Sampling Programs, and Reporting), accomplishments, and proposed refinements of the Strategy.

* * * * *