

GUIDELINES AND STANDARD PROCEDURES FOR MONITORING TURBIDITY

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ABSTRACT

Water quality is continuously monitored nationwide by the U.S. Geological Survey to assess variations in the quality of surface water. Turbidity is one of the properties commonly monitored. The sensor that is used to measure turbidity requires frequent cleaning and calibration checks and computation and publication of final records can be complex.

Quality assurance of continuous turbidity data collection and publication is important to obtain consistently high-quality information. To help in this effort, the U.S. Geological Survey recently published guidelines and standard procedures for sensor site selection, test methods, calibration, and error correction, and for data computation, review, and publication processes (Wagner and others, 2000). These guidelines have evolved over the past three decades and continue to evolve as technology changes. High-quality data from turbidity sensors can be used in conjunction with chemical analyses and discharge data to estimate chemical loads and as a surrogate for suspended sediment and other water-quality constituents.

REFERENCES

Wagner, R.J., Matraw, H.C., Ritz, G.F., and Smith, B.A., 2000, Guidelines and standard procedures for continuous water-quality monitors: site selection, field operation, calibration, record computation, and reporting: U.S. Geological Survey Water-Resources Investigations Report 00-4252, 53 p.