ACOUSTIC SEDIMENT (ACoU-SED) SURROGATES IN ILLINOIS STREAMS

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Abstract Streamflow and sediment load data are needed to establish baseline information for water-resource managers to evaluate historical and current conditions, and plan management alternatives. The U.S. Geological Survey, Illinois Water Science Center monitors streamflow at over 180 stations in Illinois, and collects sediment data at 15 of those sites. Acoustic technology is becoming increasingly used for velocity measurements and the potential for it to also be used as a surrogate for sediment concentrations would be an extraordinary benefit for the region. Selected sites are being used to test the feasibility of using acoustics as a sediment surrogate for a range of sediment concentrations and particle sizes. The poster presents the project objectives, data collection and analysis, and discusses future directions.