Implementation Monitoring: Use of Automated Samplers to Effectively Document Water Quality Improvements
Brooks Tramell, Oklahoma Conservation Commission

Monitoring is a vital part of Oklahoma Conservation Commission (OCC) priority watershed projects implemented across the state. Correct and sufficient water quality data are vital to the evaluation of watershed implementation efforts on water quality. OCC has developed unique methods for deploying and maintaining autosamplers that have proven vital in documenting the effects of implementation projects in the short timespans dictated by national NPS Program requirements. Project streams are equipped with automated water samplers programmed to collect continuous, flow-weighted composite water samples and discharge data. This type of monitoring allows for a continuous assessment of both a true average concentration of constituents in the stream water and continuous discharge data, both crucial to calculating accurate loading estimates. Although coined “auto-samplers”, these devices are far from automatic, requiring installation, maintenance, and routine visits for sample retrieval. This talk will cover several key points regarding why OCC uses autosamplers, how they are deployed, what parameters are assayed, lessons learned, and some practical examples of application.