



USDA-CSREES 2007 National Water Quality Conference

[A Paired Watershed Study to Investigate the Impact of Best Management Practices: Little Arkansas River](#)

In January of 2006 the team began to instrument a paired watershed study (with and without best management practices) on the Little Arkansas River watershed in central Kansas. Each subwatershed was instrumented with an Isco automated sampler near a measured stream cross section. This instrumentation allowed collection of time and flow weighted samples that represented storm events during the year. On non-event weeks, grab samples were collected during the summer months and monthly samples during the winter months. This instrumentation allowed measurement of stream flow and analysis of contaminant concentrations from the weighted samples collected. With average daily flowrate and contaminant concentration the contaminant loading was calculated. Contaminants measured were atrazine (a broadleaf herbicide commonly used in the watershed), metolochlor (a grass herbicide commonly used in the watershed), total suspended sediments, total nitrogen, total phosphorus, and fecal and EColi bacteria. This presentation will present the paired watershed comparison for these contaminant concentrations and loading for 2006.

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