

ABSTRACT

Update on Kansas City Middle Blue River Green Infrastructure Pilot Project

by

Michelle A. Simon

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In 2010, Kansas City, MO (KCMO) signed a consent degree with EPA on combined sewer overflows. The City decided to use adaptive management in order to extensively utilize green infrastructure (GI) in lieu of, and in addition to, structural controls. KCMO installed 130 GI storm control units—primarily bioretention units—in a hundred acre-pilot; the GI installation was complete in July 2012. The study also included a matched control area with similar hydrology to compare sewershed flowrates with the GI pilot flow rates. EPA's Office of Research and Development (ORD) has already collected sewershed flow data before and after GI installation, and also performed studies on land use, soil infiltration, drainage areas, and individual bioretention unit performance. For this ongoing project, ORD is in the process of comparing the actual GI performance to SWMM and WinSLAMM model results. In addition, fecal coliform, total dissolved solids, metals, and nutrient water quality are being measured at select bioretention units. This GI seminar will give an update of the results collected to date in this five-year project. This study is one of the more complete community scale before and after GI projects.