

ABSTRACT

FIRST YEAR UPDATE ON GREEN INFRASTRUCTURE MONITORING IN CAMDEN, NJ

The Camden County Municipal Utilities Authority (CCMUA) installed green infrastructure Stormwater Control Measures (SCMs) at multiple locations around the city of Camden, NJ. The SCMs include raised downspout planter boxes, rain gardens, and cisterns. The cisterns capture water from rooftops or recently-installed shade structures that is used to irrigate community vegetable gardens. This project is a collaborative effort between EPA and CCMUA to monitor a subset of the locations documenting the performance of individual SCMs. The selected monitoring sites include three rain gardens, two sets of raised downspout planter boxes, and five cisterns. The current plan is to monitor hydrologic performance of individual SCMs, to document water consumption patterns of cisterns to better understand the supply and demand relationship, and to monitor cistern water quality. The rain garden monitoring emphasizes surface infiltration patterns. Raised planter box monitoring will examine internal water flow patterns and media saturation frequency in the series of three or eight boxes. The continuous electronic monitoring devices included time domain reflectometer, frequency domain reflectometer, thermistors, tipping bucket rain gauges, pressure transducers, and passive capillary lysimeter. The presentation will summarize the data for first growing season giving the results from the monitoring raised downspout planter boxes, the water use, and water chemistry of cisterns.