

HYDROLOGIC CHARACTERISTICS OF WATERSHEDS IN METROPOLITAN ATLANTA, GEORGIA, 2003-2007

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Abstract Atlanta, Georgia is one of the most rapidly growing urban centers in the United States. With this growth come impacts to the hydrology and water quality of the areas watersheds. In 2003, the U.S. Geological Survey (USGS), with support from the City of Atlanta, began operating a network of 21 water-quality stations and 12 stream gages throughout Atlanta. This study summarizes the hydrologic characteristics of the 12 gaged watersheds in the Metropolitan Atlanta area for the period October 1, 2003 to September 30, 2007. The characteristics of interest include (1) annual statistics of streamflow; (2) quantification of base-flow and storm-flow contributions to annual discharge using hydrograph separation techniques; (3) flashiness (relative rate of increase to, and magnitude of, peak discharges during storm events) of each watershed; and (4) flow frequencies through the analysis of flow-duration curves.