

EXTREME DROUGHT: SUMMARY OF HYDROLOGIC CONDITIONS IN GEORGIA, 2011

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Abstract. The United States Geological Survey (USGS) in cooperation with State, local, and other Federal agencies maintains a long-term hydrologic monitoring network of more than 320 real-time streamgages, including 10 real-time lake-level monitoring stations and 63 real-time water-quality monitors in Georgia. Additionally, the USGS operates more than 180 groundwater wells, 35 of which are real-time. Changing hydrologic conditions emphasizes the need for accurate, timely data to help Federal, State and local officials make informed decisions regarding the management and conservation of Georgia's water resources. One of the many benefits from the hydrologic monitoring network is that the data analysis provides an overview of the hydrologic conditions of rivers, creeks, reservoirs, and aquifers in Georgia.

Hydrologic conditions during water year 2011 were determined by comparing the results of statistical analyses of the data collected during the current year to historical data collected over the long term. On August 31, 2011 the Office of the State Climatologist reported extreme drought conditions in almost all areas of Georgia south of the north Georgia mountains and that all counties in Georgia were classified as being in moderate, severe or extreme drought. During 2011, several streamgages with 20 or more years of record experienced record low flows including the Ogeechee River near Eden, Altamaha River at Doctortown, and Flint River at Newton. Also several streamgages recorded no flow for several days including Suwanee River at US 441 at Fargo, only the fifth time in 79 years of record. Unconfined aquifers in the Georgia Climate Response Network also reflected dryer conditions as water levels generally remained below the historic median for most of the water year.