

CONTINUOUS GROUNDWATER-LEVEL MONITORING AND WATER-LEVEL TRENDS IN THE PRINCIPAL AQUIFERS OF GEORGIA

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Groundwater-level data in Georgia are collected by the USGS, South Atlantic Water Science Center in cooperation with local, State, and other Federal agencies. The principal aquifers monitored in Georgia are the surficial aquifer, the Brunswick and Floridian Aquifer systems, Claiborne aquifer, Clayton aquifer, Cretaceous aquifer system, Paleozoic-rock aquifers, and the crystalline rock aquifers. Long term continuous water-level data from wells are necessary to monitor seasonal fluctuations, determine long-term trends, and establish relations between hydrologic stress and groundwater-level changes. For example, groundwater withdrawal influences water levels which affects aquifer storage and water availability. Water levels were monitored continuously at 158 groundwater wells during calendar year 2015. One hundred and eighteen wells were equipped with electronic data recorders that recorded water levels at 60-minute intervals and stored the data for bimonthly retrieval. Forty wells had real-time satellite telemetry that recorded water levels at 60-minute intervals. Real-time groundwater level data are transmitted hourly via satellite telemetry and available at <http://waterdata.usgs.gov/ga/nwis/current/?type=gw>. To illustrate long-term (period of record) water-level changes, selected hydrographs showing monthly mean water levels with trend lines are presented from the principal aquifers in Georgia.

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