

USGS MONITORING FOR REGIONAL STUDIES AND CRITICAL EVENTS

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The USGS (USGS) has collected high-quality streamflow, groundwater, and water-quality data according to nationally-consistent protocols for many decades. Historically, the effort behind these datasets were managed in a state-based organizational approach with sharing of resources between states on an as-needed basis. Recently, with the merger of the North Carolina, South Carolina, and Georgia USGS offices into the new USGS South Atlantic Water Science Center (SAWSC), the increased ability to share resources across state lines has greatly enhanced the ability of USGS to support larger regional studies and to respond to large-scale natural disasters, including our recent responses to Hurricanes Joaquin and Matthew. This provides enhanced support to our federal and state partners by controlling future costs and providing large-scale datasets that cross political boundaries. In addition to the more than 780 real-time streamgages in the 3-state region, SAWSC operates a number of unique networks including river cameras to view streamflow levels in real-time, real-time water-quality monitoring sites with a BacteriAlert program and selected sites equipped with real-time anadromous fish tracking capability. Additionally, the national applications to receive email and text-message user defined notifications via WaterAlert and WaterNow were developed in the South Atlantic Water Science Center. The SAWSC is constantly investigating new technologies to improve monitoring capabilities. Some examples of these technologies include the operation of an autonomous underwater vehicle for the collection of a wide-range of hydrologic parameters and the development of a real-time bridge-pier scour monitoring program. The goal of this presentation is to provide a current assessment of the SAWSC monitoring networks, explore the future directions of hydrologic monitoring in the three-state region, and demonstrate some examples of how streamlining the organizational structure has benefitted the data products and partners of the USGS.

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