

Hydrology Section — Land, Water and Conservation Division

South Carolina Department of Natural Resources

www.dnr.sc.gov

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DNR

PROJECT: Water Planning

OBJECTIVE: Develop a comprehensive water resources policy and plan for the State

In 1967, the South Carolina Water Resources Planning and Coordination Act was passed, creating the S.C. Water Resources Commission in 1969. Among other things, the Commission was to "...advise and assist the Governor and the General Assembly in formulating and establishing a comprehensive water resources policy for the State... and encourage, assist and advise regional, metropolitan, and local governmental agencies, officials or bodies responsible for planning in relation to water aspects of their programs." In 1993, the Act was amended and these responsibilities were transferred to the Hydrology Section of the S.C. Department of Natural Resources (DNR).

Several important reports were published since 1969 that address water planning and policy in the State. In 1983, the Water Resources Commission prepared a report about the State's water resources entitled *South Carolina State Water Assessment*. This report provides a comprehensive overview of the quantity, quality, availability, and use of water in South Carolina. In 1998, DNR published the *South Carolina Water Plan*, which offers guidelines for the effective management of South Carolina's water resources with the goal of sustaining the availability of water for present and future use. The second edition of the *Water Plan* was published in 2004, in light of information and knowledge gained as a result of a multi-year drought (1998–2002), which was one of the worst on record in the State. The second edition of the *Assessment* was published in 2009 and includes new information collected since the original report was published in 1983.

One of the key recommendations of the 2004 *South Carolina Water Plan* is to "...establish a river basin advisory committee for each of its four major basins. Each committee... would provide a basinwide comprehensive water resources plan to optimize water use throughout that basin." DNR is currently developing a framework and process for the development of regional (basinwide) water plans. Regional planning is needed to account for differences in water sources, availability, uses, and demands across the State. The goal is to develop a plan for each region to ensure that an adequate and reliable source of water will be available to sustain all future uses in the region.

Why is this important? Over the past 50 years, the State's population has doubled, growing from 2.3 million in 1960 to 4.6 million in 2010, and during the past 20 years, a number of severe, record-breaking droughts have led to unprecedented water shortages and supply problems across the State. Recurring droughts and population growth are straining our water resources. Plans are needed to address potential future water shortages and to ensure continued economic development and environmental protection.

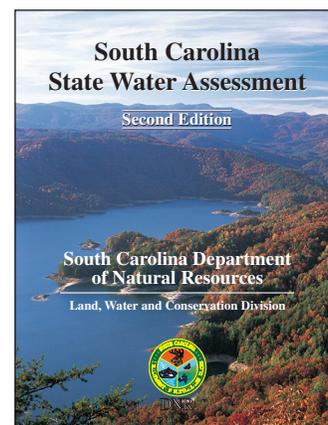
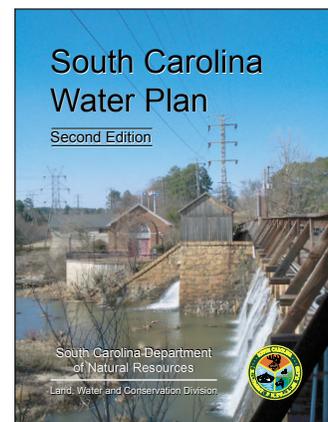
What needs to be done? Information from our hydrologic monitoring networks and from water withdrawers and dischargers will be used to develop hydrologic models, which will be used to make surface water and groundwater availability assessments for each planning region. Next, analyses must be made to determine how much water is currently being used and how much will be needed in the next 50 years for each planning region. These projections will be entered into the hydrologic models to predict when and where future water shortages will occur. From this information, plans will be developed to meet future demands.

If funding becomes available, DNR will work with DHEC, outside consultants, and stakeholders over the next several years to make surface-water availability assessments and to develop surface-water models for each of the eight major river basins in the state.

Selected reports:

South Carolina state water assessment (2009): <http://www.dnr.sc.gov/water/hydro/HydroPubs/assessment.htm>

South Carolina water plan, second edition (2004): <http://www.dnr.sc.gov/water/hydro/wtrplanerrata.html>



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