

Trends and Impacts on Groundwater Resources in Wake County, North Carolina

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Groundwater has been an important component of Wake County's water resources, providing drinking water to one quarter of its 840,000 residents. It has experienced tremendous growth for many years, growing over 30 percent between 2000 and 2007 (U.S. Census Bureau). This growth has placed an increased demand on water resources, including individual users, utilities and agricultural uses. In addition, the repeated occurrence of drought conditions since 1998 has resulted in significant stresses on water supplies. According to the National Climatic Data Center, 2007 was reported as the driest year in 113 years of recorded weather history in North Carolina. Reports of water levels at Falls Lake, the City of Raleigh's water source, indicated that less than 26% of the water supply pool storage remained. During this same period, groundwater sources were similarly challenged.

Wake County recognizes the importance of groundwater to future growth, especially to the unincorporated areas of the county where the extension of municipal water is not planned. But the management of this resource will require additional scrutiny as the County continues to into areas where citizens rely on groundwater for drinking water.

As Wake County continues to develop, particularly in areas of the where municipal water will not be extended it will need to develop creative solutions to managing this critical resource to maintain both the current population demands and to support expected growth. This presentation will include a discussion of how Wake County is addressing some of these challenges including a discussion of the regulatory framework under which it has to operate.