



House Joint Resolution No. 161: A Legislative Mandate to Study Karst Groundwater Monitoring in Virginia

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Abstract

As the only state in the U.S. without an EPA-approved Wellhead Protection Plan or program, Virginia places the onus for development and implementation of groundwater protection strategies entirely upon local governments. While localities struggle with familiar infrastructure and social concerns, less tangible problems such as growth management, source water protection, and drought and flood mitigation fall to the wayside. The situation is especially acute in the 27-county karst region of the Commonwealth, where population growth rates and the rapid conversion of farmlands and forests to urban and residential land use increasingly compromise sensitive karst resources and specifically water quality. The conflict between local and state responsibility for groundwater protection recently came to a head in the Shenandoah River watershed as public outcry over non-point-source pollution and a total lack of groundwater data convinced state legislators to delve into the geopolitics of water law. In 2000, western Virginia representatives successfully sponsored House Joint Resolution No. 161 establishing a special subcommittee to study karst groundwater monitoring and protection in the Shenandoah Valley. The Joint Subcommittee was formed under the authority of the State Water Commission, the branch of the General Assembly that addresses public water resource matters. House Joint Resolution No. 161 allowed the Sub-committee to name an *ad hoc* technical advisory group chaired by hydrogeologist Terri Brown which convened throughout the year to discuss the feasibility and economics of data collection relative to water table levels, surface water interactions with groundwater, and water withdrawals. The collection and compilation of this type of information is a minimum requirement for the long-term prediction and analysis of trends in water supply and quality regarding urban, residential, commercial, industrial, and agricultural land uses. Given that the study area is one of karst, many other aspects of water monitoring were considered, such as the need for tracer testing and sinkhole and karst outcrop maps, the limits of pumping tests, and the use of lineament and fracture trace analyses for recharge area delineation. The State Water Commission will report its findings and recommendations to the Governor and the 2002 Session of the General Assembly in January.