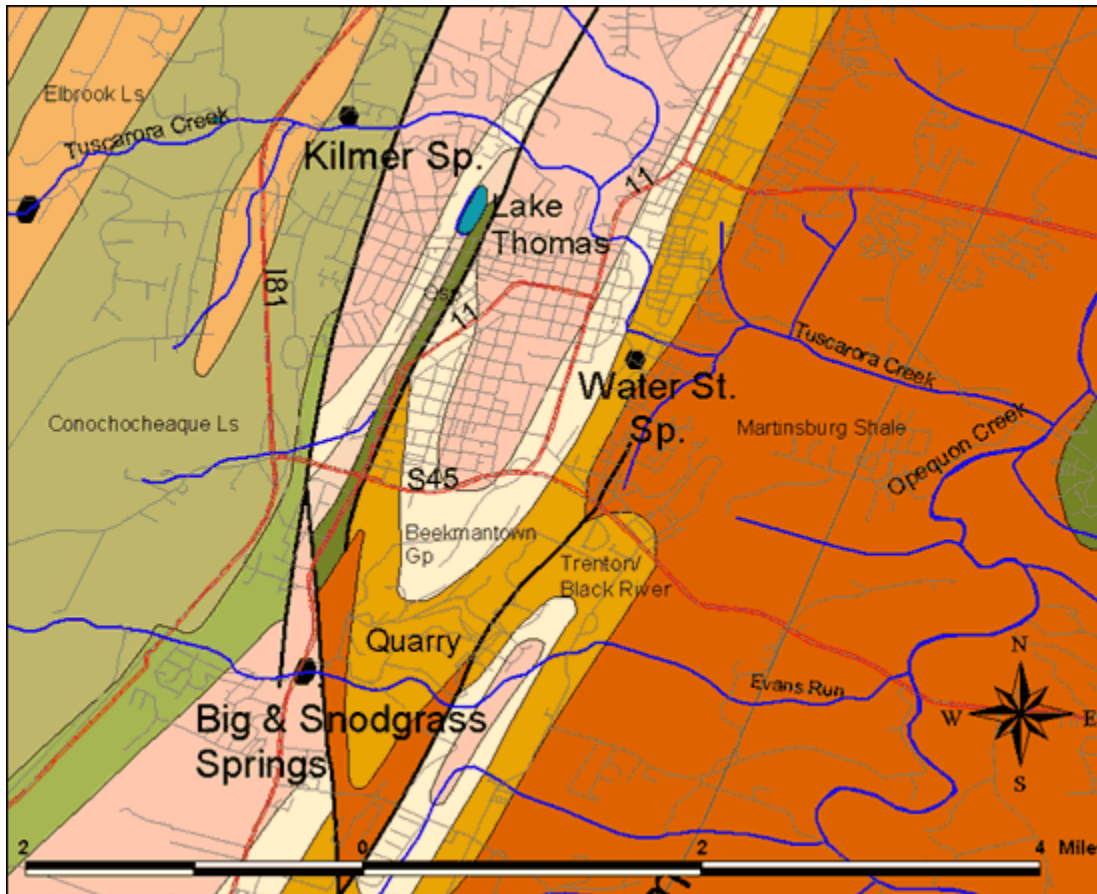


Martinsburg Karst Study (Berkeley County)

Hydraulic Connections and Impacts on the Water Supply in the Great Valley Karst Aquifer. A Case Study in Martinsburg, WV (Funded by the WV Water Resources Institute)

This is a one-year study of karst aquifer characteristics in the Martinsburg area. It is commonly understood that ground water in karst aquifers resides in three different types of porosity components: conduits, fractures (channels), and the rock matrix. Understanding the connections between these components is problematic but it is essential if the water resource is to be quantified.

The purpose of this project is to evaluate the connections between different porosity components in the Martinsburg area using automated hydraulic and chemical measurements. Martinsburg is an ideal location for this due to the presence of four springs, an active quarry, and an inactive quarry within a two-mile radius (see map below)



By using different “windows” into the aquifer, we will attempt to identify which porosity components are present, how they are connected, and what their relationship is to the local water supply.