

Beaver Run Reservoir provides drinking water to approximately 150,000 people and is operated by the Municipal Authority of Westmoreland County (MAWC), Pennsylvania. It is also adjacent to several existing or planned Marcellus shale gas wells. These deep wells have horizontal extensions and are constructed using a contentious process known as “fracking”, where chemically-laced water is injected at high pressure into the rock layers to stimulate gas production. The wells are located on land leased from MAWC, and in order to monitor the extraction process and address community concerns, faculty at Indiana University of Pennsylvania were contracted to sample surface water around the reservoir. The sampling program, involving faculty and students from the departments of Geography and Regional Planning, Chemistry, and Geosciences, has targeted drainages from the drilling pad sites, tributaries to the reservoir, and points near the reservoir bottom. Current findings will be presented from this long-term project, which is in the early stages of implementation.

Monitoring Marcellus: Assessing the Quality of a Public Water Source Exposed to Shale Gas Development.

Marcellus shale, water quality, energy, Pennsylvania