DEP Effort Encourages Oil and Gas Industry to Use Mine Drainage Water

HARRISBURG -- The Department of Environmental Protection announced today the preliminary process it will use for authorizing the use of acid mine drainage water for oil and gas operations, including Marcellus Shale wells.

“Acid mine drainage impairs more than 5,000 miles of streams in our state, making it ideal for operators to take the drainage out of our waterways and put it to use for hydraulic fracturing,” DEP Secretary Mike Krancer said. “As natural gas extraction does not require drinking quality water, this represents a real win-win that can address two water challenges at once.”

Each day, more than 300 million gallons of acid mine drainage discharges into state waterways from sites in the anthracite and bituminous coal regions. The drainage impairs more miles of rivers and streams than any other source of pollution.

Hydraulic fracturing is a process that injects a mixture of sand and water into the cracks of rock formations to create fissures that allow more oil and gas to be extracted. Hydro-fracturing a typical Marcellus Shale well requires between five million and eight million gallons of water. As freshwater is not required for fracturing operations, acid mine drainage can present a safe and viable alternative.

The hydraulic fracturing of Marcellus Shale wells takes place deep underground, 5,000 to 8,000 feet below groundwater tables. This use of acid mine drainage presents minimal risk to groundwater, as there is no evidence that groundwater in Pennsylvania has been impacted by hydraulic fracturing.
DEP completed a preliminary position paper that outlines how requests to use acid mine drainage water for hydraulic fracturing will be reviewed. Operators making such requests will work with DEP program staff to identify potential sources of water from acid mine drainage sites. DEP will then determine the necessary permits and storage and treatment requirements on a case-by-case basis. In some cases, oil and gas companies may provide financial support to acid mine drainage trust funds, ensuring that treatment continues long after there is a need for the water in hydraulic fracturing.

Over the next several months, DEP will host input sessions to gather comments from members of environmental groups and industry. The process will be revised and improved as needed until the department publishes a final position paper on the issue in February 2012. For more information and to view the position paper, visit www.dep.state.pa.us or call 717-787-5015.