Overview of the Independent Report: "Modern Shale Gas Development in the United States – A Primer"

In April 2009, the Ground Water Protection Council released the report, "Modern Shale Gas Development in the United States: A Primer." The document is divided into two parts: the first section explains the regulatory framework of shale gas exploration in the United States and the second discusses environmental considerations of shale gas development.

Here are some key points from the report:

- The overall process of horizontal drilling varies little from conventional drilling, with casing and cementing being used to protect fresh and treatable groundwater. The use of horizontal drilling has not introduced new environmental concerns. On the contrary, the reduced number of horizontal wells needed, coupled with multiple wells drilled from a single pad, has significantly reduced surface disturbances and the associated impacts to wildlife and impacts from dust, noise and traffic. (p. 76)
- It is expected that the probability for treatable groundwater to be impacted by the pumping of fluids during hydraulic fracture treatments of newly installed, deep shale gas wells when a high level of monitoring is being performed would be even less than one in two hundred million. (p.54)
- Ground water is protected during the shale gas fracturing process by a combination of the casing and cement that is installed when the well is drilled and the thousands of feet of rock between the fracture zone and any fresh or treatable aquifers. (p.76)
- Hydraulic fracturing has been a key technology in making shale gas an affordable addition to the Nation's energy supply, and the technology has proved to be a safe and effective stimulation technique. (p. 76)
- Both horizontal drilling and hydraulic fracturing are established technologies with significant track records; horizontal drilling dates back to the 1930s and hydraulic fracturing has a history dating back to the 1950s. (p. 46)
- The process of shale gas development, especially drilling and hydraulic fracturing can create short-term increases in traffic volume, dust and noise. These nuisance impacts are usually limited to the initial 20 – 30 day drilling and completion period. (p. 49)
- Operators have strong economic incentives to ensure that fractures do not propagate beyond the target formation and into adjacent rock strata. Allowing the fractures to extend beyond the target formation would be a waste of materials, time and money. (p. 58)

The Ground Water Protection Council (GWPC) is the American national association of state ground water and underground injection agencies whose mission is to promote the protection and conservation of ground water resources for all beneficial uses. Over 90% of their funding comes from The Environmental Protection Agency and the US Department of Energy. One goal of the GWPC is to provide a forum for stakeholder communication on important current issues to foster development of sound policy and regulation that is based on sound science.

The complete report is available in English on the Ground Water Protection Council Website at www.gwpc.org.