

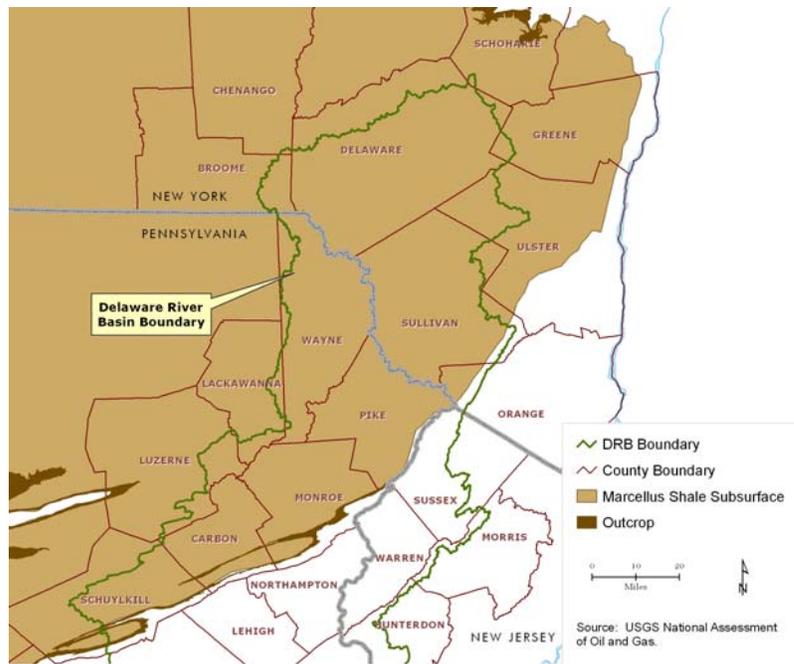


Natural Gas Drilling in the Marcellus Shale Formation

The intent of the Delaware River Basin Commission (DRBC) is not to prevent natural gas drilling, but rather to ensure that proper environmental controls are provided to safeguard our basin's water resources.

Background

Much of the new drilling interest taking place in northeastern Pennsylvania and southern New York is targeted at reaching the natural gas found in the Marcellus Shale formation, which underlies about 36 percent of the Delaware River Basin. Because Marcellus Shale is considered a tight geologic formation, natural gas deposits were not previously thought to be practically and economically mineable using traditional techniques. New horizontal drilling and extraction methods, coupled with higher energy costs, have given energy companies reason to take a new interest in mining the natural gas deposits within the Marcellus Shale.



Extent of Marcellus Shale Formation in the Delaware River Basin

However, these new extraction methods require large amounts of fresh water to fracture the formation to release the natural gas. A significant amount of water used in the extraction process is recovered, but this “frac water” includes natural gas and chemicals added to facilitate the extraction process, as well as brine and other contaminants released from the formation.

Why Is The DRBC Involved?

The DRBC is a federal-interstate compact government agency that was formed by concurrent legislation enacted in 1961 by the United States and the four basin states (Pennsylvania, New York, New Jersey, and Delaware). Its five members include the basin state governors and a federal government representative appointed by the president.

The commission has legal authority over both water quality and water quantity-related issues throughout the basin. Section 3.8 of the Delaware River Basin Compact which created the DRBC provides in part: “No project having a substantial effect on the water resources of the basin shall hereafter be undertaken by any person, corporation or governmental authority unless it shall have been first submitted to and approved by the commission ...”

In connection with natural gas drilling, the commission has identified three major areas of concern:

- 1) Gas drilling projects in the Marcellus Shale or other formations may have a substantial effect on the water resources of the basin by reducing the flow in streams and/or aquifers used to supply the significant amounts of fresh water needed in the natural gas mining process.
- 2) On-site drilling operations may potentially add, discharge or cause the release of pollutants into the ground water or surface water.
- 3) The recovered “frac water” must be treated and disposed of properly.

In accordance with Section 3.8 of the Compact and Section 2.3.4.E of the DRBC’s Rules of Practice and Procedure, a project sponsor may not commence any withdrawal of ground or surface water from the basin, drill any well, construct any impoundment or other associated appurtenances, discharge to the ground waters or surface waters of the basin or otherwise undertake a project until the sponsor has applied for and received approval from the commission.

On the subject of ground water availability, thus far none of the companies that have met with the DRBC has proposed to utilize on-site ground water wells drilled specifically as a source for their project water needs, and the discussions to date have focused on surface water sources. DRBC will review the proposed withdrawal scenario (either ground or surface) and will recommend the proposal for approval only if it complies with the commission’s water withdrawal review criteria. Notwithstanding the amount of water withdrawn, natural gas drilling projects in the Marcellus Shale formation are subject to review and approval by the DRBC because the commission has jurisdiction over multiple aspects of these projects. For example, as part of its review, the DRBC will require the applicant to indicate its disposal strategy for the “frac water.” A project will not be recommended for approval if the disposal strategy outlined by its sponsor does not comply with the commission’s rules and regulations.

Recent DRBC Activities

DRBC is currently working with other regulatory and scientific agencies at the federal and state levels to refine review criteria. Although DRBC’s authority is separate from the states’ authorities, the commission is working with Pennsylvania and New York to coordinate agency actions and minimize unnecessary duplication of effort in the issuance of DRBC permits or “dockets” to natural gas drilling companies. Companies must obtain applicable state approvals as well as approval by the DRBC. DRBC dockets are not expected to be issued to individual property owners who may have sold or leased the natural resource rights to a natural gas drilling company *with one exception*: the commission may require property owners to obtain DRBC approval if they propose to supply more than 100,000 gallons per day or more during any 30

consecutive day period from a ground and/or surface water source that has not been previously docketed by the commission.

DRBC staff members have met with industry representatives and held pre-application meetings with several natural gas drilling companies or their consultants to answer questions and explain the commission's regulatory review process. However, so far no natural gas drilling company has actually submitted a project application to the DRBC for review. To date, commission staff is aware of only one natural gas well that has been drilled in the Marcellus Shale formation in the basin; DRBC has issued the company an enforcement letter to address its failure to obtain DRBC approval before drilling this well, and has sent a separate letter notifying the company that it needs to submit an application for commission approval of future gas extraction activities at the site or elsewhere within the basin.

Future DRBC Activities

Once an application for a natural gas well drilling project is submitted, commission staff will review the proposal and may require additional information. DRBC staff then will determine whether the project complies with the commission's rules and regulations, and make a recommendation to the five commissioners. The decision to approve or deny a docket is made by majority vote of the commissioners at a duly noticed public hearing, not by the DRBC staff. The commission does not get involved in the private negotiations taking place between natural gas drilling companies and private property owners. However, property owners are advised to seek appropriate technical and legal representation to ensure that they obtain adequate protection of their property. The commission also recommends that any company proposing to drill natural gas wells in the Marcellus Shale formation contact DRBC staff to schedule a pre-application meeting.

Questions?

Contact William Muszynski (william.muszynski@drbc.state.nj.us) or
Chad Pindar (chad.pindar@drbc.state.nj.us)

*Visit the DRBC web site at www.drbc.net for more information
about the commission and its activities.*