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ENVIRONMENTAL LAW

Commission Publishes Revised Natural Gas Regulations

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Special to the Legal

On Tuesday, the Delaware River Basin Commission published revised draft natural gas regulations on its website. These regulations are designed to supplement existing state regulations for natural gas development projects within the Delaware River Basin. The DRBC is scheduled to vote on the proposed regulations at a public meeting on Nov. 21.

THE DRBC

Some readers may be unfamiliar with the DRBC, an agency that usually draws little attention outside the water resources community. The DRBC is a federal-interstate compact agency created in 1961 by concurrent legislation of the federal government and the basin states of New York, New Jersey, Pennsylvania and Delaware. The governors of the basin states and a representative of the president each have one vote on the commission. The DRBC's organic statute, the Delaware River Basin Compact, gives the DRBC broad authority to manage water resources, including both water quantity and water quality, throughout the basin.

Management of water resources includes their development and their protection. The DRBC frequently achieves this balance through planning and consensus building. The commission was formed to coordinate the activities of 43 state agencies, 14 interstate agencies and 19 federal agencies



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with jurisdiction over the water resources of the basin. The considerable formal and informal public input into modifications of the commission's comprehensive water resources plan ensures that the views of the entire basin community are considered.

The DRBC implements the comprehensive plan by requiring sponsors of projects that have a substantial effect on the water resources of the basin to obtain commission approval before commencing their projects. The compact also authorizes the commission to promulgate regulations in furtherance of its statutory mission.

NATURAL GAS IN THE BASIN

Advances in horizontal drilling, hydraulic fracturing (hydrofracking) and other natural gas extraction technologies raised the prospect that many natural gas wells will be installed in the basin. The basin is composed of the drainage area of the Delaware River,

a 13,539 square mile area that provides drinking water supplies, recreational opportunities, high value aquatic habitat and other benefits to over 15 million people within and outside the basin. Current data suggest that the northeast portion of the basin in Pennsylvania and New York holds the most promising natural gas reserves and thus will experience the most intense development activity.

The Upper Basin, which encompasses the most likely location of natural gas development, includes the headwaters of the Delaware River and is a critical water protection area. The commission has classified the entire nontidal Delaware River — the 197 mile reach above Trenton, N.J. — as Special Protection Waters (SPWs) because of its high water resource values. SPWs are subject to the stringent requirements of the DRBC's anti-degradation program. The DRBC instituted that program following Congress's decision in 1978 to add over 100 miles of the Upper Delaware River to the National Wild and Scenic River System. The Middle and Lower sections of the nontidal river now also have Wild and Scenic and SPW status. The nontidal river corridor includes three National Park Service management areas.

Natural gas development expected to occur within the basin poses risks to the sensitive headwaters and other areas of the basin. Impacts may result from exploration and production activities including, among others, water withdrawals to conduct hydrofracking, landscape changes to install well pads, roads, pipelines and other

infrastructure, well bores that pass through aquifers and multiple geologic strata and potential releases of contaminants during the storage, transport and disposal of wastewater, among other activities.

To respond to these concerns, the commission declared a moratorium on natural gas well pad activities until the commission adopts regulations to address the potential water resources impacts of these activities. In December 2010, the commission published proposed regulations. In response, it received 18 hours of oral comment during six public hearings and accepted over 69,000 written comments. The revised draft regulations take these comments into account.

The revised regulations protect water resources during natural gas development activities by requiring natural gas project sponsors and the entities providing them with water-related services to obtain commission approvals. The approvals include a docket or permit for water sources, a Bulk Water Use and Management Approval for projects involving the construction or operation of natural gas wells, an approval of a natural gas development plan for each large leasehold in the basin and an approval for wastewater transfer, treatment or disposal. Each of these approvals will be discussed in turn.

APPROVAL OF WATER SOURCES

Allocating water and establishing conditions for its withdrawal or diversion are typical commission functions. Most often, the commission is requested to approve water withdrawals for long-term use as public water supply or industrial supply in amounts that do not vary greatly from year to year. In such circumstances, the commission reviews and approves water withdrawals only if they exceed monthly average quantity thresholds specified in commission rules. In contrast, withdrawals expected to support hydrofracking may

fall below existing regulatory thresholds because of their intermittent or transitory nature. These withdrawals nonetheless pose water resources risks, especially to small streams.

To address this challenge, the regulations expand the commission's traditional review process for water withdrawals to encompass all surface and groundwater withdrawals and other sources of water intended for use in natural gas development regardless of quantity. A water source within the basin that already holds a commission approval

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and has excess allocations may sell or otherwise transfer that water for natural gas development within the same state without obtaining additional approval. To minimize use of fresh water, the regulations also delegate to the executive director authority to approve certain other sources, including reuse of recovered flowback and production water for well stimulation within the same state, through a streamlined process called Approval by Delegated Authority.

All approvals for water sources will have conditions deemed necessary to protect water resources. In addition to quantitative limits, these may include stream pass-by flow requirements; invasive species control measures; development and implementation of a nonpoint source pollution control plan, a withdrawal site operations plan and a drought emergency plan; a natural diversity inventory assessment, metering

and recording of withdrawals; and reporting of complaints by other water users alleging interference.

BULK WATER USE AND MANAGEMENT APPROVAL

Sponsors of natural gas development projects must obtain a Bulk Water Use and Management Approval. This approval will ordinarily be issued through an ADA, but must be obtained directly from the commissioners where the project is proposed to be located within National Park Service management areas or watersheds draining to New York City's Delaware River Basin reservoirs.

The Bulk Water Use and Management Approval is a principal mechanism for supplementing state programs that address activities at and around the well pad site. Among the approval conditions specified in the commission's revised regulations are setback requirements and best management practices, surface water and groundwater monitoring requirements, provisions to encourage reuse of flowback and production water, a limitation on the quantity of water used, requirements to meter water use and obligations to prepare a water conservation program and an invasive species control plan. The revised regulations also mandate offsite disposal of target formation drill cuttings, limit the duration of storage of flowback and production water onsite, and require wastewater to be stored in water-tight tanks.

NATURAL GAS DEVELOPMENT PLAN APPROVAL

A third type of approval specified in the regulations is the Natural Gas Development Plan. An NGDP is a project sponsor's overall plan for siting and accessing natural gas development projects in its entire basin leasehold. An NGDP focuses the project sponsor on the cumulative effects that natural gas development activities may have

on the landscape elements integral to the quality and availability of water. Properly designed, an NGDP will include measures to avoid or minimize impacts to high value water resource landscapes and SPWs during and following exploration and production activities.

The NGDP contains elements similar to a concept plan. It includes landscape mapping of areas prohibited from development such as floodways and constraints set by other governmental authorities and lease agreements. The plan depicts areas prohibited from development absent a variance, including setbacks established by the commission or by the state. It identifies the remaining lands available for natural gas development activities, and the degree of environmental sensitivity of these lands. BMPs, restoration and compensation requirements are imposed based upon the environmental sensitivity of the chosen development sites and the ecological functions affected. A project sponsor may not install more than five well pads until the commission issues a docket approving the sponsor's NGDP.

WASTEWATER APPROVAL

An additional approval relates to the transfer, treatment or discharge of wastewater. Except for recovered flowback and production water that is reused in accordance with the commission's regulations, wastewater may not be transferred, treated or discharged within the basin except in accordance with an approval issued by the commission to the owner or operator of the transfer, treatment or disposal facility. A treatability study must be submitted to the commission demonstrating the capability of the facility to treat natural gas wastewater. Wastewater must also not contribute to an exceedance of the EPA's primary and secondary safe drinking water regulations or to the DRBC's effluent limitations applicable

at the discharge site. If the discharge is located within the drainage area of SPWs, the stringent requirements of the commission's SPW regulations apply. Wastewater is tracked from the well pad to its final treatment or discharge location.

ADDITIONAL PROJECT REQUIREMENTS

Several other provisions of the revised regulations work in tandem with the approvals described above. No water source may be used at a well pad site until the commission expressly adds the source to the project sponsor's approved list of water sources. This condition applies to the well project sponsor and is independent of the approval issued to the operator of the water source. In addition, the commission will grant approvals for no more than 300 wells during the first 18 months of the program. At that point the commission will perform an administrative and operational review of the program.

In drafting the requirements for commission approvals, the commission was cognizant of the existence of state programs and the benefits of avoiding unnecessary duplication. As a result, in lieu of imposing its own requirements for construction and operation of individual wells, the commission is relying on host state regulations and the administration of those regulations by experienced state officials.

The revised regulations impose new financial assurance requirements that provide an important backstop if a project sponsor fails to perform as required. The regulations mandate that the project sponsor provide the commission with financial assurance for the plugging and abandonment of the wells (\$25,000 per well up to \$250,000), mitigation and restoration required by the NGDP (a project specific limit) and mitigation or remediation of

releases (\$5 million per pad or occurrence, \$25 million maximum).

The revised draft regulations, even if adopted by the commission on Nov. 21, are unlikely to be the final word. Because some members of the basin community contend that natural gas development should be prohibited altogether in the basin, and others assert that in light of state regulations, commission regulations are unnecessary, litigation may result. Indeed, the earlier draft regulations are already subject to lawsuits in federal court in New York. The revised regulations, if and when adopted, are intended to allow natural gas development to proceed, but only in a manner protective of the basin's water resources. Whether the program will be adjusted over time only through the commission's adaptive management process, or whether it will be changed in other ways by the courts, remains to be seen.