

## **MARCELLUS MATTERS:**

### **NYSDEC's Proposed Regulations Provide Restrictions on Gas Well Locations; Guidelines for Water Well Usage**

*The attorneys at Jaeckle Fleischmann & Mugel, LLP are pleased to provide a series of Alerts regarding New York State's proposed regulation\* of Marcellus Shale gas development & high volume hydraulic fracturing. This Alert provides an analysis of the components of the proposed regulations that restrict the location of natural gas wells, and the permit application disclosure requirements related to drinking water well testing and water sources to be used in the fracturing process.*

\*This Alert is based on the New York State Department of Environmental Conservation's (NYSDEC's) proposed regulation of Marcellus Shale natural gas development using high volume hydraulic fracturing (HVHF), as it appears in the draft Supplemental Generic Environmental Impact Statement (SGEIS) and NYSDEC's draft regulations issued in December 2011.

#### **Restrictions on the location of HVHF wells in New York State**

This area of the proposed regulations has created significant controversy. The NYSDEC has estimated 80% of developable locations are available under proposed restrictions, and industry experts have countered with estimates indicating that 40% to 60% of available developable land will be off limits. Moreover, the Independent Oil and Gas Association of New York (IOGANY), an industry group, in its comments on the SGEIS and draft regulations, stated that the proposed setbacks would cost the State over \$27 billion in lost lease, royalty and tax revenue in just four of the primary Marcellus Shale counties of the State. No matter which of the estimates of lost development impacts is more accurate, there are significant restrictions on where NYS will permit HVHF. Proposed regulations include language that prohibits such development permanently, prohibits it for a period of time, with NYSDEC being permitted to reconsider the prohibition, or restricts development by requiring a permit applicant to file a site-specific environmental impact statement for the well pad site. The list of prohibitions and restrictions are as follows:

- No permits will be issued for well pads on State lands, including State Parks, State Forests, Wildlife Management Areas, Multiple Use Areas, Natural Resource Management Areas, Fishing Access Sites, Boat Launches, State hatcheries, game farms and tidal wetlands.
- No permits within the NYC and Syracuse watersheds or within a 4000 foot buffer zone around these watersheds (note that there is no explanation by NYSDEC as to what constitutes these "watersheds").

- No permits within a 1000 foot wide corridor surrounding a NYC water tunnel or aqueduct, unless NYC determines that drilling at the proposed well location will have no infrastructure impact. The permit applicant will have to demonstrate a lack of impact.
- No permits within a primary aquifer (an aquifer used as a municipal water supply) or within a 500 foot buffer zone around the aquifer. This is subject to reconsideration by NYSDEC two years after the first HVHF permit is issued.
- No permits for a well pad within 2000 feet of public wells, rivers or stream drinking water intakes and reservoirs. This is subject to reconsideration three years after the first permit is issued.
- No permits within 500 feet of private drinking wells or domestic springs, unless waived by the owner.
- No permits within a 100-year flood plain.

Although well pads cannot be located in these areas, drilling in some instances may occur from well pads located just outside the restricted areas and that drill horizontally underneath the restricted areas.

Further restrictions include:

- No permits will be issued within a 500 foot boundary of a principal aquifer (a "highly productive" aquifer or where the geology "suggests" abundant potential supply, but is not heavily used for a public water supply), unless site-specific SEQRA review is conducted and individual SPDES permits are issued for stormwater discharges. This is subject to reconsideration by NYSDEC 2 years after the first HVHF permit is issued.
- No permits within 500 feet of perennial or intermittent streams that are tributary to surface water drinking water supplies;
- No permits within 150 feet of any perennial or intermittent stream, storm drain, lake or pond that are not tributary to public drinking water supplies.
- Site-specific SEQRA review would also be required for any HVHF well permit application that proposes:
  - fracturing occurring more shallow than 2000 feet below the ground surface anywhere along the well bore;
  - a fracture zone that is closer than 1000 feet below the base of a known fresh water supply;

- any proposed water withdrawal from a pond or lake within 500 feet of a private well or a wetland that pumped test data shows will have an influence on the wetland;
- any proposed water withdrawal not based on the methodology required by the SGEIS (discussed below);
- a well location that will be in an Agricultural District and that will disturb greater than 2.5 acres of land. Agricultural District well locations will also be subject to additional permit requirements to minimize the impact of the land disturbance.

### **Permit Disclosure Requirements Related to Drinking Water Well Test Requirements**

All HVHF permits will require that applicants/drillers test private water wells within 1000 feet of a well pad (subject to the owner's permission), or within 2000 feet if no wells are available within 1000 feet. All test results must be provided to the property owner within 30 days of the applicants/drillers receipt of lab results, and must be available to NYSDEC and local health departments upon request. The required test schedule is:

- initial sampling and analysis prior to site disturbance at the first well on the pad and prior to drilling of additional wells (to create baseline data);
- sampling/analysis three months after reaching total measured depth at any well on the pad if there is a hiatus of longer than three months between reaching total measured depth and any other milestone on the well pad that requires sampling/analysis;
- sampling/analysis three months, six months and one year after HVHF operations at each well on the pad.

At multi-well pads where drilling and HVHF activity is continuous, the sampling protocol will be simplified to include sampling/analysis at three month intervals until six months after the last well has completed HVHF, with a final round one year after the last well HVHF is completed. Neighbor complaints or other reasonable cause could increase the frequency of sampling and analysis. Twelve test parameters are suggested and sampling protocols and procedures are provided in the SGEIS.

## **Permit Disclosure Requirements Related to Water Withdrawal for HVHF**

The SGEIS establishes that demands for HVHF water will not be a significant drain on statewide freshwater resources. NYSDEC estimated that peak water withdrawals from HVHF would increase statewide water demand by only 0.24%, even though each well is expected to require an average of 3.6 million gallons of water. However, localized impacts could be far larger. As a result, NYSDEC will require that a source of water for HVHF be identified prior to any drilling permit being issued, and that the water source provider hold or obtain a permit under New York's new Water Withdrawal Law ([see our prior Alert on this law here](#)). This law requires that anyone operating a water withdrawal system having a capacity of 100,000 gallons or more per day obtain a NYSDEC permit. The law requires compliance with minimum operating standards, monitoring/recordkeeping and reporting requirements and protections regarding stream flow. . As stated in the SGEIS, permit applicants withdrawing water from a stream or river will be required to analyze water withdrawals using the Natural Flow Regime Method (NFRM), which is meant to assure adequate surface water flow and avoid stream degradation due to water withdrawals. Use of this method is discussed in detail in the SGEIS. Different analyses will be required for groundwater withdrawals for HVHF. IOGANY has strongly criticized the proposed use of the NFRM, and recommends that NYSDEC use water withdrawal analysis requirements of the Susquehanna River Basin Commission, which are currently evolving. IOGANY argues that to use a different methodology might lead to contradictory results.

NYSDEC recently issued proposed regulations implementing the new Water Withdrawal law, and a comment period for these regulations has a January 22, 2012 deadline. The proposed regulations make it clear that water withdrawals that have been approved by the Delaware River and Susquehanna River Basin Commissions are exempt from the need for a NYSDEC Water Withdrawal permit, although annual reporting and certain registration requirements will still apply. Permit application and annual reporting requirements are detailed in the proposed regulations.

***For more information, contact Dennis P. Harkawik at 716.843.3848 or [dharkawik@jaeckle.com](mailto:dharkawik@jaeckle.com) or Charles D. Grieco at 716.843.3844 or [cgrieco@jaeckle.com](mailto:cgrieco@jaeckle.com).***

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