NEWS
New York State Department of Environmental Conservation
Andrew M. Cuomo, Governor
Joe Martens, Commissioner

NYS DEC
625 Broadway
Albany, NY 12233-1016
www.dec.ny.gov

FACT SHEET: 2011 RECOMMENDATIONS FOR PERMITTING HIGH-VOLUME HYDRAULIC FRACTURING IN NEW YORK STATE

The New York State Department of Environmental Conservation released its revised recommendations on mitigating the environmental and socio-economic impacts of high-volume hydraulic fracturing (high-volume fracturing) on September 7, 2011. In developing the permitting process for high-volume hydraulic fracturing, DEC's number one priority is to protect drinking water for all New Yorkers.

Specific measures to protect the state's drinking water include prohibiting surface drilling:

- within 2,000 feet of public drinking water supplies;
- on the state's 18 primary aquifers and within 500 feet of their boundaries;
- within 500 feet of private wells, unless waived by landowner;
- in floodplains;
- on principal aquifers without site-specific reviews; and
- within the Syracuse and New York City watersheds.

These recommendations, if adopted in final form, would protect the state's environmentally sensitive areas while realizing the economic development and energy benefits of the state's natural gas resources. More than 80 percent of the Marcellus Shale where gas extraction is viable would still be accessible under these recommendations.

Permits will only be issued consistent with the DEC's ability to review and oversee high-volume hydraulic fracturing activities and ensure compliance with permit conditions.

In preparing the draft Supplemental Generic Environmental Impact Statement, DEC studied the experiences and regulations in other states, considered more than 13,000 public comments and engaged independent researchers to examine potential socioeconomic and other local impacts. DEC's recommendations represent the most comprehensive measures in the country to protect not only drinking water but land, air and environmentally sensitive areas.

These rigorous controls include such permitting rules as:

Protecting Drinking Water

- **New York City & Syracuse Watersheds:** As the only unfiltered surface supplies of municipal water in the state, these watersheds are unique and deserve special protection to maintain their EPA Filtration Avoidance Determinations. Industrial activity, such as increased truck traffic, could impact these determinations. Losing this designation would mean New York City and Syracuse would be required to spend billions of dollars to build water filtration plants. Therefore, high-volume fracturing will be prohibited within these watersheds, within 4,000 feet of their boundaries and within 1,000 feet of NYC's subsurface water supply infrastructure unless approval is granted after site-specific review.

- **Well water protection and other water protection:** No permits will be issued for sites within 500 feet of a private water well or domestic use spring, unless this restriction is waived by the landowner. No permits may be issued for a proposed site within 2,000 feet of a public drinking water supply well or reservoir. After three years, this 2,000-foot restriction will be reviewed. No permits will be issued for well pads sited within a 100-year floodplain.
- **Additional Well Casing to Prevent Gas Migration:** In most cases, an additional third, cemented well casing is required around each well to prevent the migration of gas. The three required casings are the surface casing, the new intermediate casing and the production casing. The depths of both surface and intermediate casings will be determined by site-specific conditions.
- **Spill control:** All new guidelines will require that flowback water stored on-site be placed in watertight tanks within a secondary containment. No open containment may be used. Secondary containment will also be required for all fracturing additive containers, additive staging areas and flowback tanks to ensure any spills of wastewater or chemicals at the well pad do not migrate into water supplies.
- **Stormwater Control:** A new general permit will be required to demonstrate that strict stormwater control measures to prevent stormwater from contaminating water resources are in place.
- **Regulating Water Withdrawals:**
    - New Legislation: Pursuant to the Governor's signing of DEC's Water Withdrawal legislation, which the State Legislature recently passed, a special permit will be required to withdraw large volumes of water for industrial and commercial purposes to ensure there are not adverse impacts.
    - Permit Condition: All withdrawals from surface water bodies will be subject to limits to prevent impacts upon ecosystems and other water quantity requirements. Identification of the water source an applicant intends to use will be required and an annual report must be issued on the aggregate amount of water it has withdrawn or purchased.

<u>Properly Handling Flowback Water</u>:

Since the 2009 SGEIS, many drilling companies have started to recycle much of the flowback water, greatly reducing the need for disposal.

- **Flowback Water Disposal:** Applicants must have DEC-approved plans for disposing of flowback water and production brine.
- **Drilling & Production Waste Tracking:** DEC would institute a process to monitor disposal of flowback water, production brine, drill cuttings and other drilling waste streams that is similar to the handling of medical waste.
- **Water Treatment Facilities:** Requires full analysis and approvals under existing state and federal water laws and regulations, which must be completed before a water treatment facility could accept flowback water. This would include a treatment capacity analysis for any publicly operated treatment works facility (POTW) and a contingency plan if the primary disposal for wastewater is a POTW.

Taking Local Governments & Communities into Account:

- **Local Government Notification:** DEC would notify local governments of each well permit application for high-volume fracturing.
- **Local Land Use & Zoning:** Applicants must certify that a proposed activity is consistent with local land use and zoning laws. Failure to certify or a dispute regarding consistency raised by a locality would trigger additional DEC review before a permit could be issued.

Identifying Fracturing Fluid Chemicals:

- **Chemical Identification:** The 2011 SGEIS identifies 322 chemicals proposed for use in New York and includes health hazard information for each category of chemicals as identified by the NYS Department of Health. Applicants must fully disclose to DEC all products and combinations used in the high-volume hydraulic fracturing process. In addition, applicants must agree to publicly identify the names of the additives, subject to exemptions where the applicant can prove that the exemption is necessary to protect confidential business information.
- **Chemical Alternatives:** Operators will be required to evaluate the use of alternative additives that pose less potential risk.

Protecting the Air:

- **Air Quality:** Requires enhanced air pollution controls on engines used at well pads. DEC will monitor local and regional air quality at well pads and surrounding areas.
- **Greenhouse Gas Impact:** Requires use of existing pipelines when available rather than flaring gas.

Conserving Habitats:

- **Private Forestland:** Disturbing the surface of the land is restricted in forests of 150 acres or more by requiring applicants to comply with best management practices.
- **Private Grasslands:** Disturbing the surface of the land is restricted in grasslands of 30 acres or more by requiring applicants to comply with best management practices.

Off-setting Community Impacts:

The revised draft SGEIS proposes new mitigation measures to address impacts to communities and local governments. A significant mitigation measure is to limit simultaneous construction of well pads and wells in proximity to each other. DEC will consider this measure in consultation with local governments to lessen cumulative impacts. This approach would help mitigate impacts on local community character, as well as cumulative noise, visual and traffic impacts.

Additional proposed mitigation measures include:

- Traffic: require drillers to produce detailed transportation plans outlining the proposed number of trucks, truck routes and times of day of truck operations, and assessing the conditions of those roads;
- Noise: site-specific measures could include setbacks, site layout design that takes advantage of topography, noise barriers and special permit conditions; and
- Visual: site-specific measures could include screening, relocation, camouflage or disguise, using non-reflective materials and controlling off-site migration of lighting.