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New Recommendations Issued in Hydraulic Fracturing Review

- **In Reversal of 2009 Report, High-Volume Fracturing Would be Prohibited in NYC and Syracuse Watersheds**
- **Drilling Banned Within All Primary Aquifers and on State-Owned Land Including State Forest and Wildlife Management Areas**
- **Drilling Permitted on Other Private Land with Rigorous and Effective Protections**
- **Advisory Panel on Implementation to Be Appointed**

The Department of Environmental Conservation (DEC) tomorrow will release its revised recommendations on mitigating the environmental impacts of high-volume hydraulic fracturing (high-volume fracturing). The recommendations contain these major revisions:

- High-volume fracturing would be prohibited in the New York City and Syracuse watersheds, including a buffer zone;
- Drilling would be prohibited within primary aquifers and within 500 feet of their boundaries;
- Surface drilling would be prohibited on state-owned land including parks, forest areas and wildlife management areas;
- High-volume fracturing will be permitted on privately held lands under rigorous and effective controls; and
- DEC will issue regulations to codify these recommendations into state law.

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. Approximately 85 percent of the Marcellus Shale would be accessible to natural gas extraction under these recommendations.

DEC Commissioner Joseph Martens said, "This report strikes the right balance between protecting our environment, watersheds, and drinking water and promoting economic development."

The ban on high-volume fracturing in the New York City and Syracuse watersheds represents a reversal of the Department's 2009 draft report, which would have permitted drilling in those watersheds. The New York and Syracuse watersheds are unique in that they are the only unfiltered supplies of municipal water in the state and deserve special protection. The prior report also would have allowed high-volume fracturing surface drilling in primary aquifers and on public forests, wildlife areas and parkland; the 2011 report reverses all of these recommendations.

There will be more opportunity for review and comment on the Department's recommendations. DEC plans for a 60-day public comment period commencing in August. There is no administrative or discretionary moratorium on high-volume fracturing. By law, no permits may be issued until the public comments are reviewed and considered and the final Supplement Generic Environmental Impact Statement is released.

DEC enforcement and oversight of high-volume fracturing will be rigorous and effective. No permits will be issued until DEC has the proper enforcement capacity in place to monitor all fracturing activities.

In preparing the new recommendations, DEC engaged independent consultants to perform research, sought further information from the gas drilling industry, considered more than 13,000 public comments and studied other states' regulations and experience, including site visits by Commissioner Martens and DEC officials to Pennsylvania incident sites. Since September 2009, DEC staff has spent approximately 10,250 hours updating the document. The 2011 version contains more than 900 pages, including more than 150 additional pages of data and analysis compared to the 2009 version.

The Department's extensive review has resulted in recommendations for rigorous and effective controls on high-volume fracturing on private lands. These state-of-the-art controls include such permitting rules as:

Protecting Drinking Water

- **Well water protection and other water protection:** No permits would be issued for sites within 500 feet of a private water well or domestic use spring. No permits may be issued for a proposed site within 2,000 feet of a public drinking water supply well or reservoir at least until three years of experience elsewhere have been evaluated. 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 on site must use watertight tanks within a secondary containment. No open containment may be used. A 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:** New permit process requiring strict stormwater control measures to prevent stormwater from contaminating water resources.
- **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.

Properly Handling Flowback Water:

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:** Applicant must certify that a proposed activity is consistent with local land use and zoning laws. Failure to certify or a challenge 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 as identified by the NYS Department of Health. Applicants must fully disclose to DEC all products utilized in the high-volume fracturing process. In addition, applicants must agree to publicly disclose the names of the additives, subject to appropriate protections for proprietary information.
- **Chemical Alternatives:** Operators will be required to evaluate using 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 strictly 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 strictly restricted in grasslands of 30 acres or more by requiring applicants to comply with best management practices.

Making Sure We Get It Right - Community Impacts Still Under Study:

The 2009 SGEIS did not adequately consider the community and socioeconomic impacts of high-volume fracturing. To address this deficiency, DEC has engaged independent consultants to thoroughly research these types of effects.

Specifically, researchers are examining both baseline data and the potential effects of development in the areas of:

- Socioeconomic conditions including positive and negative impacts;
- Transportation infrastructure, current road use and the impacts of increased traffic; and
- Visual and noise impacts.

DEC expects the research to be completed by July 31, 2011. This research will be considered and reflected in the final draft of the report.

Appointment of Advisory Panel to Develop Implementation Plan:

Upon final adoption of the permitting standards, the Department will implement a system of oversight, monitoring and enforcement. The successful implementation of high-volume fracturing policy will also require close consultation with local governments and communities.

Commissioner Martens will announce the formation of the High-Volume Hydraulic Fracturing Advisory Panel, which will be composed of outside environmental and industry experts, and local government representatives. The Panel will be charged with developing recommendations for:

- funding to ensure the proper oversight, monitoring and enforcement of mitigation measures, including both state and county agencies responsible for drilling activities and reviewing water sampling data;
- measures to minimize socioeconomic and other impacts on local governments and communities;
- a fee structure for drilling development; and
- a mechanism for the funding of infrastructure improvements.

The complete 2011 SGEIS will be available on DEC's website on July 8.