



**NYSDEC Draft Supplemental Generic Environmental Impact Statement (DSGEIS)
For Natural Gas Extraction and Development in Marcellus Shale and Other Shales
Talking Points for NYSDEC
Upcoming Hearings
October 26, 2009**

1. **The comment period needs to be extended** to at least January 31, 2010, a period of 120 days, due to the size and importance of the DSGEIS. More public hearings need to be held with at least one hearing in the downstream communities of the Delaware River Watershed such as Philadelphia, PA or Trenton, NJ due to the potential impacts on the 8 million water users in the Delaware River Watershed and the critical need for input from a broad-based public.
2. **Ban gas well drilling in the floodplain.** DEC must ban all components of a gas well project from its Special Flood Hazard Area in order to protect from increased and damaging flooding in the State's streams and rivers, particularly considering the recent flood history in the Delaware River watershed (3 catastrophic floods in 2004-2006). Flooding is a major issue in the Delaware River Watershed. New York confirms that flooding may be worsened by natural gas development due to: 1. Hydraulic fracturing fluid chemicals that may enter a waterway from fracturing procedures, open pits, spills or accidents (GEIS, 8-44); 2. Out of date flood maps (DSGEIS, 2-34-35); 3. Land use changes (land clearing, larger well pads, etc.) that increase stormwater runoff volume from natural gas well sites (DSGEIS, 6-15-16); 4. Other pollutants and debris at well sites (GEIS, 8-44). However, DEC still allows gas wells and infrastructure to be placed in New York's Special Flood Hazard Area, which is the 100 year floodplain and they only add the requirement for a floodplain development permit from the appropriate agency and that closed tanks be used for flowback fluids (DSGEIS, 7-72 and Appendix 10). DEC must not allow any part of any drilling project in the regulated floodplain and must provide a setback from all streams and waterways that is not based on a simple footage measurement (presently it is 150 feet from well pad to waterway, 500 feet from open pit to waterway) but is based on the 100 year regulated floodplain plus a safety buffer such as 300 feet. This is the only way to prevent increased flooding and flood damages to adjacent and downstream communities.
3. **Hydraulic fracturing needs to be regulated and alternatives to its use must be considered.** The DSGEIS lists 12 classes of additives that make up fracturing fluid products and reports that nearly 200 products could be used in New York for fracturing the Marcellus shale (DSGEIS, 5-45). Extensive information is provided about the chemicals that could be used and health information about the dangers of exposure from the NY State Department of Health is included (DSGEIS, 5-62-66). Regardless, DEC concludes that these chemicals can be used safely through certain management efforts; no chemicals are banned or considered too dangerous to inject into the well bore, despite the hazardous nature of many of them and the unknown effectiveness of

pollution prevention plans in regard to the extremely dangerous chemicals that are involved—benzene and benzene derivatives, kerosene, formaldehyde, ethylene glycol, butanol, acids, and some ingredients EPA classifies as “acutely hazardous”. When it comes to protecting drinking water, a precautionary approach is required and justifiable. There are “green fracturing fluids” in use that need to be investigated and the potential impacts of using non-toxic materials for fracturing must be seriously explored. Until we find a way to get the gas out without endangering our water resources, why not wait? The gas has been here over 300 million years and isn’t going anywhere. The drinking water for 15 million people is at stake; until the potential for pollution is addressed, the Delaware River Watershed should be placed off limits for hydraulic fracturing with chemicals.

4. **Cumulative impact of shale well development must be done.** DEC breezes past this fundamental issue claiming the cumulative impact it is too “inherently difficult” to assess (DSGEIS 6-143) and that the cumulative effect of the consumption of the water withdrawn is not addressed by NY State regulations (DSGEIS, 7-22). It may be difficult but the cumulative impact of the gross land changes and water resource impacts that will result from the build-out of the lease holdings of gas companies can be projected to give an accurate assessment of the impacts so that ceilings can be placed on disturbance, consumptive water use and total wastewater discharges based on the goal of not degrading the State’s streams and rivers. Considering these issues on a one by one basis for well pads is never going to accurately assess the cumulative effects as they build up over time. By then it will be too late. DEC must perform a cumulative analysis, according to its own rules, and must do so in order to assess and then plan for how to protect the resources that gas development will change.

5. **Wastewater disposal – dilution is not the solution to pollution.** And neither is shipping it off to Pennsylvania, the Delaware River Watershed state with the most land mass and most water flow contribution to the Delaware River (DSGEIS 5-122-123). DEC must plan for disposing of its own gas drilling wastewater, not skirt the issue by sending it off to Pennsylvania. Pennsylvania is already producing more wastewater than it can safely process, as evidenced by the present repeat of a Drinking Water Advisory on the Monongahela River that flows through Pittsburg and provides drinking water to 325,000 people and many industries. Due to extremely high Total Dissolved Solids (TDS) and salts from gas drilling wastewater overloads, people have been advised to drink bottled water once again, even though PADEP tried to limit what sewage treatment plants could take in. Also, the death of Dunkard Creek (that meanders back and forth across Pennsylvania and West Virginia borders) in September of this year is sad testimony to the effects of poorly tracked and overdone injection of gas drilling wastewater into a coal mine that sent TDS and salts into the Creek, killing 10,000 fish representing 161 species of aquatic life. The discharge has been ordered to stop but the West Virginia permit for the injection of wastewater has not been rescinded. Pennsylvania gas wells send their wastewater to West Virginia—now New York wants to send theirs to Pennsylvania? And Pennsylvania is planning new discharge standards for the dozens of industrial wastewater plants that want to be built throughout the state that will simply dilute the wastewater and filter some pollutants but will not treat the myriad of chemicals in the hydrofrack fluids and produced flowback that shale gas wells will produce. This despite the fact that many of Pennsylvania’s streams are already overloaded with pollutants and can’t meet basic Clean Water Act standards. Gas drilling wastewater contaminants, all of them, must not be swept into our

waterways, injected into the earth, or turned into solids that get buried. DEC must require that all potential pollutants be treated to a non-hazardous condition before being recycled or disposed of.

6. **The NYC WATERSHED, which includes all the lands that drain to the City's reservoirs, must be off-limits to gas drilling.** The Delaware River reservoirs, Cannonsville, Pepacton, and Neversink, control about 28% of the river's flow and the approximate 292 billion gallons of water the City residents drink every year from the Delaware makes the City's diversion the largest single user of river water, almost half of all the water used in the Delaware River Watershed. And it is the largest unfiltered water supply in the nation because the water quality is so high that the City has been granted a waiver by the US Environmental Protection Agency from building a \$10 billion water filtration plant. That special approval is based on the City's comprehensive Watershed protection Plan, put in place over the last 2 decades for millions of dollars. This is all in jeopardy if gas drilling takes place within the reservoir watershed system. The water quality risks that face surface waters adjacent to drilling are magnified when the City's infrastructure, much of which is located very near the Marcellus formation, is considered. The natural fractures that are known to exist in the Marcellus formation, combined with the stimulated fractures that hydrofracking causes, provides an easy pathway to some of the key components of the reservoir system. According to New York City's Rapid Impact Assessment Report the tunnels, aqueducts, and pipelines of the system are located within 500-1500 feet of the Marcellus shale and in at least 2 places are actually in contact with the shale (New York City Department of Environmental Protection, "Rapid Impact Assessment Report, Impacts Assessment of Natural gas Production in the New York City Watershed, September 2009). Hydraulically fractured horizontal wells and injection wells into deep gas bearing formations can now provide a short hop for formation pollutants and fracking fluids in deep well bores to the water supply for 9 million New Yorkers (including the Naturally Occurring Radioactive Materials that DEC flags in the DSGEIS). And consumptive use of water withdrawn from the streams that feed the reservoirs or the reservoirs themselves will have a heightened impact on this finite water source. Further, for the Delaware River, what happens in the NYC Watershed is carried downstream in the mandated flows from NYC's reservoirs to the streams below and eventually to the rest of the 8 million residents of the Delaware River Watershed. DEC cannot risk spoiling the water supply for New York City and the water quality of the River's downstream waters. DEC must place the NYC Watershed off limits to all gas related projects, including drilling, injection and other waste disposal and water withdrawals.
7. **DEC must promulgate regulations, not simply suggest conditions.** DEC has not proposed any regulations that would apply across the board to all permits. In many cases, they refer to existing regulations in other state or federal programs or at the Delaware or Susquehanna River Basin Commissions. They don't even take responsibility for feeder pipelines that must be installed at each well site to remove the natural gas to larger pipelines and processing facilities. They have split off all but the drill pad and adjacent infrastructure and its access areas from their permitting. Many of proposed permit conditions are not mandatory but can be avoided by individual applicants. This approach confuses the key environmental issues and how they will be addressed. There must be a public rulemaking process that governs the future of how gas development will move ahead in the State.

8. **The Upper Delaware Scenic and Recreational River and Catskill Park need protection.** DEC mentions that the potential impacts on the Upper Delaware Scenic and Recreational River and Catskill Park as part of the reason they conducted the SGEIS (DSGEIS 1-4). Yet this is glossed over and never confronted as the crucial issue that it is. Congress designated the Upper and Middle Delaware River as part of the Wild and Scenic River system in 1978. Most of the non-tidal river is now a Wild and Scenic River and special regulations to give that designation teeth have been adopted by the Delaware River basin Commission. First, the Middle Delaware River will be directly impacted by drilling since the Marcellus shale and other tight shale formations extend into the Middle Delaware River. Second, all of the nationally designated river, including the Lower Delaware Wild and Scenic River, will be impacted by shale gas development through water resource impacts that are inescapable to downstream residents and water users. Third, the outstanding resources that merited the inclusion of the Delaware River into the National Wild and Scenic System are at risk, including the scenic, recreational, habitat and community character aspects of the River. Lastly, Catskill Park is a forested, farmed and creek-filled gem that protects the mountains that feed the streams and rivers of the Delaware and Hudson. All the same impacts that threaten the Wild and Scenic River, threaten the state-owned and supported Catskill Park. The cursory attention paid by DEC to the impacts that shale gas development will have and the weak mitigation measures suggested do not address the sweeping changes that gas development brings. The lack of cumulative impact analysis makes the protection of these resources and natural features all the more difficult. DEC must revisit this aspect of the SGEIS in order to protect these resources, which are vulnerable to the type of industrial development that is contemplated, endangering the very living and aesthetic resources that merited the River's designation.

As we move ahead and further decipher the implications of what DEC has and has not concluded, we will develop full written comments and a sample letter we will share for people to consider submitting. We have only touched on a few issues which could be addressed in your 5 minute comment at the upcoming Hearing(s). Please expand these thoughts and add your own reflections about how DEC should regulate shale gas extraction, development, and production in New York and the Delaware River Watershed. And please remember to request an extension of public comment so we can all deeply investigate the DSGEIS and Hearings in more accessible places to Delaware River watershed residents.