



**POSITION STATEMENT ON NATURAL GAS DRILLING
IN THE LAKE OTSEGO WATERSHED AND OTSEGO
COUNTY
July 15, 2009**

OVERVIEW

Exploration and drilling for natural gas in New York State through the use of vertical wells is well established and has been conducted for decades under the control and regulation of the Department of Environmental Conservation (DEC). However, as the price of oil has skyrocketed, energy suppliers have developed a new, riskier method to extract natural gas trapped in tight shale formations through a process known as horizontal high-water volume hydraulic fracturing or “hydro-fracking”. It uses millions of gallons of chemically treated water - in the range of 100 thousand gallons per minute - highly pressurized and pumped through horizontal wells at depths of as much as 8000 feet, to “fracture” the shale and release natural gas believed to be trapped there.

This process was developed in states where the topography is semi-arid and flat such as the prairie lands of north and central Texas. Energy companies are now planning to import this new technique to upstate New York, an area which experiences heavy rainfall and is rich in lakes, rivers, streams, and both natural and made reservoirs. In this environment, risks of surface and groundwater contamination of drinking water and injury to individuals and animal life coming into contact with contaminated drilling and flow-back fluids are

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of grave concern and potentially catastrophic.

The natural gas extraction industry touts its safety record based on statistics of accidents per population of wells in specific regions. However, all incidents dealing with these toxic substances are potentially extremely damaging to drinking water sources and surrounding populations. Based on the experience of other states, a wide variety of potential accidents are reasonably foreseeable and therefore must be prepared for. A short and incomplete list of potential dangers include: leaking of drilling fluid and flowback due to well casing failure during drilling process, spilling of contaminated fluids held at the well site, traffic accidents involving trucks carrying contaminated fluids from the site to water treatment or disposal sites, and exposure to chemicals by work crews, first responders and medical personnel.

For these reasons and those discussed more fully below, Otsego 2000 urges caution and a moratorium on horizontal hydraulic fracturing in the Lake Otsego Watershed and Otsego County until safety issues are addressed and resolved. In addition, we urge a minimum of one mile setbacks for all such drilling around municipal water sources be they wells, lakes, or reservoirs, limitations on drilling near first and second order tributaries, site specific environmental review of all drilling applications within the one mile buffer zone, and notice to local government and adjacent landowners before permits for such drilling are issued.

In so doing, we join a large coalition of environmental and water protection groups throughout New York State urging more study before horizontal hydro-fracking is allowed. We note that New York City has raised serious concerns about the risks of horizontal hydro-fracking in New York City's Watershed and has demanded protection beyond that which is proposed for the rest of New York State including a one mile buffer zone prohibiting drilling near any of NYC water supply infrastructure, specifically including its reservoirs. (Testimony of DEC Commissioner Grannis, New York City Council Committee on Environmental Protection Hearing, September 10, 2008.) Indeed, the final scoping document issued by the DEC suggested that rules may be developed specifically for the New York City Watershed (see DEC Final Scope, Sec. 4.2.3.1 and 4.2.4)

We join in the concerns expressed by New York City and strongly urge that any regulations developed to protect water sources for New York City be applied throughout the State. There are no grounds to provide less protection to citizens living and working upstate than those in the City. Such a double standard or attempted environmental redlining constitutes disparate treatment, which must not be tolerated under the law or the proposed regulations.

RISKS OF DRINKING WATER CONTAMINATION AT THE SURFACE AND BELOW ARE SIGNIFICANT.

There is no reasonable dispute that the millions of gallons of water used in hydrofracking are laced with chemicals dangerous to the public health. While the drilling companies have not yet publicly disclosed the exact constituents of the chemicals used in the drilling fluid, the DEC requires that chemically treated fracking fluids, as well as all flow-back fluids must be segregated and contained to protect drinking water and human and animal health. (Flow-back drilling fluids are dangerous even if no chemical additives are added, as they are contaminated with naturally occurring dangerous substances found below the earth's surface and require treatment.)

The usual practice is to truck water to the wellheads in large tanker trucks. The DEC contemplates permitting as many as 16 horizontal wells to be drilled at a single well site or pad with each well to be fractured multiple times. As a result each well site could be open for a period of up to three years of continuous fracturing. Because such huge quantities of water are required, hundreds if not thousands of truckloads of water will be needed at each well pad to supply up to 16 horizontal wells. The millions of gallons of contaminated water will be "held" at the well pad in large, open pits, both before and after the fracturing process. After drilling, the contaminated water is to be carried away by hundreds more tanker trucks to waste water treatment facilities off site for clean up and disposal. Thus, in addition to the risks of water contamination discussed below, there is the enormous burden and risk of hundreds of tanker trucks barreling on the local roads carrying millions of gallons of fresh water to the well sites, as well as hauling millions of gallons of contaminated fluids away.

There are two principal risks to the water supply resulting from the presence of such huge quantities of contaminated water in open holding pits. First, is the risk of surface water contamination caused by accidental spillage of chemical additives and runoff from chemically treated water held in open pits. The hilly terrain of the Lake Otsego Watershed does not lend itself to the impoundment of such spills or contained fluids. In fact, given even moderate rainfall and a typical hilly Otsego County location, conventional open pits would not be sufficient to contain the fluids that are required to be cycled into the well during drilling and fracturing. Simply put, the holding pits will overflow with rainwater and spill into the Lake itself or the nearest adjacent stream or tributary.

Second, lakes, reservoirs, and private wells can be polluted by subsurface contamina-

tion if the casing of the drill fails under extreme pressure or if contaminated run-off leaches to the subsurface. For example, there is known perched groundwater on shale all around Lake Otsego, both above and below the surface of the Lake - one of the reasons for poor septic effluent retention around Lake Otsego. Thus, there is a serious risk that the Lake could be contaminated with chemicals leaching into the Lake from strata communicating with the Lake waters below the Lake's surface or that aquifers which supply private wells could be similarly contaminated. In such an environment, claims that well casings "rarely" fail and that hydraulic fracturing which is "generally" safe are simplistic and inconsistent with required natural and man made disaster planning. Even one failure can be catastrophic and destroy drinking water for whole communities.

NECESSARY PROTECTIONS FOR DRINKING WATER SOURCES HAVE BEEN IGNORED.

Significantly, the proposed DEC scoping document ignores the experience with water contamination which has occurred in other states, such as Colorado. In Colorado, hydro-fracking wells may not be drilled closer than 2,640 feet from any municipal water source. (See e.g., Colorado Oil and Gas Conservation Commission amended rules for gas drilling dated December 17, 2008.) The proposed DEC regulations would allow wells to be drilled in New York State within 50 (fifty) feet of such a water source. This discrepancy strongly suggests that the DEC regulation is ludicrously insufficient, and constitutes a major defect in the existing DEC scoping document.

Moreover, the proposed DEC regulations arbitrarily require more protection for municipal water wells than for surface water sources such as lakes and reservoirs. The DEC appears to require site-specific environmental review prior to drilling closer than 1,000 feet from municipal water well. Yet no such review is mandated for wells drilled as close as 50 feet to a municipal reservoir! The proposed regulations state:

“Well Drilling Near Municipal Water Supply Wells – Issuance of a permit to drill less than 1,000 feet from a municipal water supply well is considered "always significant" and requires a site- specific SEIS dealing with groundwater hydrology, potential impacts and mitigation measures. Any proposed well location between 1,000 and 2,000 feet from a municipal water supply well requires a site-specific assessment and SEQRA determination. A site-specific SEIS dealing with groundwater hydrology, potential impacts and mitigation measures may be required for a proposed well between 1,000 and 2,000 feet from a municipal water supply well. For any proposed well within 2,000 feet of a municipal water supply well, all opportunities for public

input normally provided under SEQRA are available.” (DEC Final Scope, Sec. 4.2.2)

However the regulations allow drilling within fifty (50) feet of a lake used as a municipal water supply with no site-specific review (DEC Final Scope, Sec. 4.2.3) This is simply untenable. There is no justification for treating a municipal well differently than a municipal reservoir/lake. We urge the DEC to adopt a consistent standard for both sources of municipal water.

Moreover we believe the 50-foot setback is insufficient on its face. Colorado requires a 2,640-foot setback. Moreover, New York City has requested a one-mile buffer to apply to “all” NYC water supply infrastructure specifically including reservoirs. We believe the unique characteristics of the Lake Otsego Watershed require the same one-mile setback as that demanded by New York City. Accordingly, Otsego 2000 joins others in recommending that hydro-fracking be prohibited within one mile of a drinking water reservoir/lake and its tributary streams as follows:

“Reservoir/Lake

Gas drilling prohibited within one mile of a drinking water reservoir/lake.

Tributary Streams (1st and 2nd order)

Internal Buffer Zone: 0 – 1,320 feet – Gas drilling prohibited.

External Buffer Zone: 1,321 – 5,280 feet – Gas drilling allowed under the following conditions:

1. Use of a “closed loop” system for handling drilling wastewaters. This includes the use of above ground steel tanks with beams capable of holding 150% of the stored wastewater volume.
2. Require baseline testing of streams within the zone prior to drilling, with follow-up testing three months after drilling is completed. Sample parameters shall include: pH, alkalinity, specific conductance, major category ions/anions, total dissolved solids, hydrocarbons, and metals.
3. Notify public drinking water systems within 15 miles downstream of drilling operations.
4. Create an emergency response program that includes employee training,

safety, and maintenance provisions.

A further condition for any proposed gas well location in the External Zone would be the requirement for a site-specific assessment and SEQRA determination.”

NOTICE TO LOCAL GOVERNMENT BEFORE PERMITTING MUST BE PROVIDED.

Remarkably, the proposed regulations do not require notice to local municipalities or adjoining landowners before permits to drill are issued. As written, the DEC could issue a well drilling permit and notice would be given only “prior to commencement of operations” (DEC Final Scope, Sec. 5.1.)

It is perhaps ironic that the standard of review for installing a boat dock on a lake is considerably higher in New York State than that proposed by the DEC for drilling a gas well, with its attendant chemical spill risk, truck traffic problems, and chemically contaminated water containment issues. In order to get a dock permit in State waters, the applicant must prove that they have notified the adjacent property owner as well as the municipality, in addition to conducting a SEQRA review. We suggest that the notice requirement for a horizontal hydro-fracking well permit, should be at least as rigorous as that required for a boat dock.

We believe that the DEC’s “permit, then notify” approach is backwards – since once the permit is granted, the local government and property owners have precious little say in the matter. We encourage the DEC to revisit this issue, and require prior notification of local government and adjacent landowners as part of the permit process. Specifically, we request that the application for drilling a well or building a gathering system contain the following proofs of notification:

1. Proof that the municipalities have been notified, including town and county water and road authorities and agencies.
2. Proof that the adjacent landowners have been notified of the application.
3. Proof the surface property owner has been notified of the application.
4. SEQRA review of the proposed well and gathering system.

CONCLUSION

The proposed DEC regulations are more a patchwork of local political concessions, than a serious effort to address the unique topography and hydrological characteristics of New York State when it comes to protection of health and drinking water sources from the risks of horizontal hydro-fracking. In fact, the DEC has committed to developing special rules for the NYC watershed and has recommended site-specific environmental review for drilling within 1,000 feet of a municipal well, while allow drilling as close as 50 feet from a municipal reservoir without site-specific review. These are irrational distinctions and totally out of keeping with New York State's unique climate, hydrology and topography as well as the experience of other states. Further, the DEC has refused to require notice to local authorities before a permit to drill is issued, seriously compromising meaningful local review and participation.

Otsego 2000 joins others in seeking a one mile set back for horizontal hydro-fracking around all sources of municipal drinking water in the Lake Otsego Watershed including lakes and reservoirs, site specific environmental review of all drilling in a one mile buffer zone around all first and second order tributaries, inclusion of a requirement of local notice to municipalities and adjoining landowners prior to issuance of drilling permits, and a moratorium on such drilling in the Lake Otsego Watershed and Otsego County until these and other public safety issues are addressed.