“Your Water” Blog
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This is November 2009. DO YOU KNOW WHERE YOUR WATER IS?

Your water supply is currently being surrounded by influences which are hazardous to its health, and yours, too. Since the 1800’s the force of gravity has delivered your water to you through an amazing tunnel system from upstate reservoirs. Some 90% of your water travels from the Catskill/Delaware (C/D) Watershed, which lies 120 miles north of the City. Up to now those lands, streams and reservoirs have been so clean that nature has been able to provide the filtration services for your water, saving you the cost of a $10 billion filtration plant and $300 million in annual maintenance costs. Such costs would, of course, be quite a hit to your pocketbook, even in a city of 8 million. However, you should consider the current dangers to your health as well as those to your pocketbook.

Importantly, your C/D Watershed sits on top of deep (5000 feet) deposits of natural gas trapped in pockets of shale rock, called Marcellus Shale. While these deposits have been around for millions of years, only recently has the confluence of rising energy prices and technological innovation in extraction made drilling for natural gas in Marcellus Shale potentially profitable. Unfortunately, every stage of the extraction of the gas involves some danger to the quality of your water, the supply of your water, the amazing infrastructure that brings the water to you, and also to the system that allows the City to filter the water naturally and to avoid building that expensive filtration plant!

What dangers do you and your water face? One is the chemicals used in drilling. Some 435 chemicals used in drilling contain ingredients known to be carcinogens and hazardous to health. Some of these chemicals have leaked during some aspect of the gas extraction process in other parts of the country, with subsequent deaths among livestock as big as cows and serious illness in humans. Unfortunately, former Vice President Dick Cheney used his influence to exempt natural gas companies from the protection of the Safe Water Drinking Act. Under federal law, the natural gas companies do not have to reveal what the ingredients of their drilling chemicals are. A New York representative (Hinchey) has sponsored a bill in Congress to change this, but that bill is not yet law. Recently radioactive substances have been found in the materials released by natural gas mining. If these chemicals get into the water supply, the former head of the City’s Department of Environmental Protection testified that the City would have to provide not just filtration, but ultra-micro filtration. There is also some question of whether the filtration system could clean out all of the chemicals from the water. Another thought that should give pause is that if there were an accident requiring filtration, the plant would not be in place to filter the water for years. So, in the meantime, the City would be receiving contaminated water!

But would the City be able to receive enough water? Some 3 to 9 million gallons of water is pumped into the ground for EACH well in order to push that gas out! Where does that water come from? In the Catskill part of your Watershed, there is no legal
authority is place to assure that the gas companies would not use so much water that the City would have a shortage. No regulation currently assures that the drilling will not interfere with an adequate supply of water to the City.

Also, the millions of gallons of fresh water that goes in the wells contain those chemicals when the water comes out. Some of the contaminated water stays underground and could leak into the environment. Hundreds of thousands of truck trips are required to carry the dirty water out, and with so many trips, not to mention cell phoning and texting drivers, accidents and spills are a very real possibility. Storage and treatment of the dirty water present other opportunities for escape of the contaminants into the environment. These are not comfortable thoughts.

Perhaps even more importantly, the underground infrastructure needed to supply you with your water is old, some built in the 1800’s. There are already leaks in aqueducts and very clever, educated people are working together to figure out how to fix them without disturbing the flow of water. Several aspects of the drilling process set off underground pressures which could harm the infrastructure. One process used to get rid of the waste water in some parts of the country set off seismic pressures and have even triggered earthquakes by disturbing a fault in the earth. This is more discomforting information.

Given all of the dangers to a watershed supplying water to some 9 million people, you might expect that the New York State Department of Environmental Conservation (NYSDEC) would act to vigorously protect this watershed. However, NYSDEC has failed to do so. In a recently published generic environmental impact statement (GEIS) of 809 pages, the agency allowed drilling for natural gas in two thirds of your Watershed, only two months for comments, and no public hearings. One needs many varieties of professional insight to understand those 809 pages. So far the NYSDEC has had to back down and allow some public hearings and has extended the period of public comment to December 30th. This is still not sufficient time to absorb the huge report. Also, New York City has a final report on drilling due out sometime during December, and people will require time to study that report. The December 30th extension is virtually useless to CUNY students and their families. Final exams are in December, and students then need to rebond with families after the rigors of the semester during the holidays.

The NYSDEC could allow drilling in the Watershed at the end of the comment period if there is no law passed that explicitly prohibits drilling in the Watershed, even though there are many aspects of drilling for which there is not adequate regulation. The former head of the New York City Department of Environmental Protection was one of many experts who testified about the inadequacy of both the report and the protections. Neither the Governor nor the Mayor has taken a firm stand against drilling in the Watershed, despite the lack of protections and the many dangers. New York State law favors exploitation of resources and does not require sustainable economic development in the state. Some sites that will provide you more information on this vital topic include:

**The GEIS report**: <http://www.dec.ny.gov/energy/58440.html>


**General Info: natural gas**: www.cwconline.org your watershed www.nyc.gov/watershed