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We are also grateful for the guidance and support of Paul Gallay, Executive Director and Robert F. Kennedy, Jr., Chief Prosecuting Attorney.

Riverkeeper is an environmental watchdog organization dedicated to protecting the Hudson River and the New York City drinking water supply. For more information about us please visit www.riverkeeper.org. We are also a founding member of the Waterkeeper Alliance, an international organization that works with nearly 200 Waterkeepers to protect waterways around the globe. For more information about Waterkeeper, please visit: www.waterkeeper.org.

Cover photograph of a well site during active Marcellus Shale drilling in Dimock, PA. This photograph was taken during a June 3, 2010 tour of Dimock with Riverkeeper, Natural Resources Defense Council and Catskill Mountainkeeper. Photo Credit: James L. Simpson, ©2010 Riverkeeper, Inc. All rights reserved.

Links to all websites in this volume are current as of the release date.

For more information on Riverkeeper’s watershed protection efforts and to see our gas drilling reports and resource library, please visit our website at: http://www.riverkeeper.org/campaigns/safeguard/gas-drilling/.

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INTRODUCTION: THE CASE FOR A STATEWIDE MORATORIUM

Since July 2008, Riverkeeper has tracked the prospect of industrial gas drilling in New York State. While gas drilling in New York is not new, the proposed magnitude, scope, and locations of high-volume horizontal hydraulic fracturing (“fracking”) operations are cause for concern. Industrial gas drilling throughout the Marcellus Shale and other shale reserves has severe environmental and public health impacts and can alter community character dramatically.

Fractured Communities

Released in September 2010 our Fractured Communities report documents more than 100 cases nationwide where federal and state regulators identified gas drilling operations, including those that utilize hydraulic fracturing, as the known or suspected cause of groundwater, drinking water, surface water, and air contamination. These case studies include:

- More than 20 cases of drinking water contamination in PA;
- More than 30 cases of groundwater and drinking water contamination in CO and WY;
- More than 10 cases of surface water spills of drilling fluid in the Marcellus Shale region;
- More than 30 investigations of stray gas migration from new and abandoned wells in PA;
- Dozens of illegal operations and permit violations by gas drilling companies;
- Five explosions that contaminated groundwater and/or surface water between 2006 and 2010.

To be sure, the case studies highlighted here are just a sample of problems that regulators, landowners, municipalities, and communities across the country continue to uncover as regulators play catch-up in an effort to reverse the lax regulatory oversight and lack of preparedness that contributed to many of these problems.

In December 2009, Riverkeeper submitted 150-page comments to the New York State Department of Environmental Conservation (DEC) documenting over 240 specific deficiencies with DEC’s draft supplemental generic environmental statement (DSGEIS). The agency received over 16,000 comments on the DSGEIS. New York law requires DEC to respond to each comment and make necessary changes to the DSGEIS based on those comments. New York cannot issue permits for horizontal drilling using hydraulic fracturing until DEC issues the Final SGEIS.

In April and September 2010, Riverkeeper testified before EPA and submitted comments on behalf of 30 other Waterkeeper organizations urging EPA to include analysis of the hundreds of case studies nationwide in its ongoing scientific report on the water resource impacts of hydraulic fracturing.
Riverkeeper’s Position on Industrial Gas Drilling in New York State

Based on our research and analysis, Riverkeeper feels that here in New York, high-volume horizontal hydraulic fracturing should not be permitted until proper regulations and enforcement mechanisms are in place. As no new regulations have been proposed and severe budget and staff cuts continue to plague DEC, we have no confidence in the state’s ability to supply properly trained personnel to monitor, investigate, and enforce environmental laws where necessary. It is clear that New York is simply not ready for increased gas drilling at this time.

To make matters worse, at a time when the oil & gas industry should be on its best behavior, the industry continues to operate with impunity and lobby against federal regulatory oversight. The industry’s collective track record is abysmal and companies continues to cut corners at the expense of workers and communities across America. Instead of acknowledging risk and undeniable impacts, executives and spokespeople demonize the opposition. Rather than full disclosure, there is secrecy coupled with empty promises of cooperation.

There needs to be a sea change in industry’s attitude if this country is to take the lead in creating long-term energy solutions and sustainable economies of scale that do not require the sacrifice of clean air and water. At bare minimum, companies need to establish comprehensive Best Management Practices (BMPs) that can be applied industry-wide. These BMPs must address longstanding issues of public disclosure of chemicals, well integrity and wastewater treatment, and must ensure that the drilling, casing, operation, plugging and replugging of wells and reclamation of surrounding land is done in such a manner as to prevent environmental damage. In order to make these BMPs a reality, industry must work with state and federal regulators to promulgate regulations that codify these BMPs.

The Marcellus and Utica Shales underlie most of the Catskills and the Southern Tier of New York. This area is home to the “forever wild” lands of the Adirondack and Catskills parks, and the vast systems of creeks and rivers that comprise the New York City drinking water supply, the upper Delaware River Basin, the Mohawk River, the upper Hudson River, the Finger Lakes, and the renowned trout fishing streams of the Catskills. Numerous other state parks, preserves, forests, and wetland areas provide critical habitat for fish and wildlife, serve a variety of ecosystem functions such as water filtration, and are also major tourist and recreational areas. These areas all warrant significant attention and may need to be placed permanently off-limits to drilling. At minimum, no drilling should be allowed until proper rules and regulations have been promulgated to adequately address concerns of environmental contamination and negative impacts to the special character of these regions.

Hydraulic fracturing should not threaten anyone’s drinking water, whether it flows up from a local well or down from the cool, clear streams of the Catskills. But in the absence of proper preventative measures, environmental assessments, strong regulations and enforcement mechanisms, the cumulative environmental impacts of the industrialization of rural landscapes remain unknown, and gas drilling operations continue to result in environmental degradation.
The NYS Assembly Should Suspend Drilling Until May 2011

The NYS Senate passed the drilling suspension bill on August 3, 2010. The state Assembly should build on that momentum and take decisive action now to protect New York’s air and water quality.

This bill would prevent DEC from issuing permits to hydraulically fracture in the Marcellus and Utica Shales until May 15, 2011, and has the support of communities as well as environmental and civic groups across the state representing tens of thousands of New Yorkers.

As a letter released by Environmental Advocates on November 29, 2010 clearly states, “This bill will give New York more time to thoroughly review this issue and develop more protective practices.” In addition to providing the incoming governor with an opportunity for a fresh look at the serious issues surrounding natural gas development, “this suspension would also provide the legislature with the chance to make statutory changes necessary to protect water supplies; clarify environmental conservation law restoring home rule rights to municipalities; protect aquatic ecosystems by setting strict wastewater treatment standards; protect New York’s streams, lakes, and rivers by implementing a system to oversee the large water withdrawals associated with hydraulic fracturing; and provide DEC with the staff and resources needed to develop protective regulations and enforce our rules and laws.”
FRACUTURED COMMUNITIES

Over the past two years in Pennsylvania, state regulators have found that gas drilling using high-volume hydraulic fracturing has contaminated drinking water, polluted surface waters, polluted air, and contaminated soils. In Ohio, state regulators found that inadequate well casing resulted in drinking water contamination and the explosion of a house. In Texas, state regulators found elevated levels of benzene and other toxics in neighborhoods with nearby gas compressors. In Wyoming, EPA has warned residents not to drink the water, and in Colorado, hundreds of spills have been reported and widespread groundwater contamination continues to present risks to area residents.

XTO ENERGY SPILLS 13,000 GALLONS OF FRACKING FLUID IN PA

PA DEP issued a notice of violation to XTO Energy and is investigating why a 21,000-gallon fracking fluid tank valve was left open, spilling more than 13,000 gallons of toxic chemicals and contaminating nearby rivers and streams. The company responsible, XTO Energy, is a subsidiary of Exxon.

“DEP Investigating Lycoming County Fracking Fluid Spill at XTO Energy Marcellus Well”
http://www.portal.state.pa.us/portal/server.pt/community/newsroom/14287?id=15315&typeid=1

PENNSYLVANIA DUMPING RADIOACTIVE WASTE IN NY

A legal loophole allows companies in Pennsylvania to dump their hydraulic fracturing waste in New York landfills. This drilling waste contains low-level radioactivity, which the accepting landfills are not registered to handle.

“Pennsylvania Gas Drillers Dumping Radioactive Waste in New York” – DC Bureau

EPA INITIATES FOUR ENFORCEMENT ACTIONS AGAINST CHESAPEAKE

In October and November 2010, EPA initiated four Clean Water Act enforcement actions against Chesapeake Energy for violations stemming from the company’s hydraulic fracturing operations in West Virginia. It appears that the company, a self-touted environmental leader in gas drilling nationwide, has been building access roads to its well sites directly through streams without the permits required under section 404 of the Clean Water Act. These recent orders do not preclude EPA from also instituting civil or criminal action.

“EPA cites Chesapeake for illegally filling streams” – AP
CHESAPEAKE SAYS FIRE NO BIG DEAL, WV DEP DISAGREES

The West Virginia DEP has ordered Chesapeake Energy to shut down a site that has been experiencing an ongoing well fire. Chesapeake insisted that the fire posed no threat, however the West Virginia DEP was unconvinced, stating “The fire poses an imminent danger. And the freshwater supply could be contaminated because of the fire and efforts to manage the fire.”

“DEP Shuts Down Chesapeake Site” – The Intelligencer
http://theintelligencer.net/page/content.detail/id/542094.html?nav=515

METHANE IN PA WATER IS FROM DRILLING

Scientists have tested the drinking water contaminated by methane and determined that the gas present in the drinking wells is not from natural causes, but in fact a result of the nearby gas drilling.

“Science Says Methane in PA Water is from Drilling, not Natural Causes” - Propublica

PIPELINE ‘PIG’ DESTROYS HOME

An accident occurred when a pipeline-testing device was launched 500 feet into a nearby home in Grand Prairie, TX.

“Pipeline ‘Pig’ Crashes through Grand Prairie Home” - WFAA

SMALL FINE PAID FOR DEATH OF TWO WORKERS

The PA DEP fined Huntley & Huntley Inc. $32,000 as a result of a July 23 explosion in which 2 people died.

“DEP Fines Huntley & Huntley Inc. for July 23 Tank Explosion” - Forbes
PR____DC89044.html

WHO CHECKS THE PIPELINES?

Federal and state inspection of pipeline safety is called into question as a number of high profile explosions occur.

“Gas Blasts Spur Questions on Oversight” – The New York Times
PIPELINE INSPECTORS MIA

State and Federal agencies do not inspect the safety of pipelines, leaving the job to the companies that own the lines. The recent spill of more than 1 million gallons of crude oil into the Kalamazoo River in Michigan, however, calls to question whether or not this practice is wise.

“State, Feds don’t Inspect Pipelines” - MLive

Landowner Issues

MORE PROBLEMS IN DIMOCK, PA

A new water pipeline project has been proposed to provide fresh drinking water to residents whose water was contaminated after drilling began. The new pipeline comes with an $11.8 million price tag, which Cabot Oil and Gas is refusing to pay for, claiming they did not cause the drinking water contamination.

“Proposed water pipeline pits neighbor against neighbor in Dimock” - The Ithaca Journal
http://www.theithacajournal.com/article/20101127/NEWS01/11270324/1126/news/Natural+gas+debate++Proposed+water+pipeline+pits+neighbor+against+neighbor+in+Dimock

WHEN GRANDMA SIGNS A LEASE WITH CHESAPEAKE

A 94-year-old woman was courted by Chesapeake Energy Corp. to lease her land for gas drilling for $50/acre. Her grandchildren, who strongly oppose the gas drilling, were co-owners of the land and were not consulted in the dealings.

“Pennsylvania Family Fighting Driller for Land Rights” – The News Herald

INFLUX OF MIGRANT GAS WORKERS PUTS STRAIN ON COMMUNITY

Pennsylvania towns are now struggling to deal with strains on public resources caused by an influx of outsiders and increased traffic in areas affected by the gas drilling boom.

“Gas Boom Catches Community Off Guard” - CNN

GAS DEALS BROKEN BY CHESAPEAKE LEAVES LOCALS WITHOUT CASH

Chesapeake Energy has voided as many as 206 leases it signed with residents in WV.

“Chesapeake Leases Voided: Middlebourne Couple Out $100,000” – The Intelligencer
http://www.theintelligencer.net/page/content.detail/id/548341/Chesapeake-Leases-Voided--Middlebourne-Couple-Out--100-000.html?nav=515
MIGRANT GAS WORKERS CAUSE PROBLEMS FOR COMMUNITY

Drunken gas workers are putting a strain on the Lawrence Township, PA police department.

“All is Not Well; Drilling Raises Issues” – The Courier Express http://www.thecourierexpress.com/courierexpresscourierexpresslocal/892686-349/all-is-not-welldrilling-raises-issues.html

PENNSYLVANIA DOES NOT SHARE LOUISIANA’S ATTITUDE

The attitudes of people toward gas drilling vary by location. People in Louisiana, where gas drilling has been happening for over a century, are much more accepting than those in Pennsylvania, which has experienced a recent gas boom.


GAS DRILLING AND STUDENT HEALTH

Students at schools in Argyle, Texas, have experienced increased medical issues after the construction of a gas-drilling rig less than half a mile from two schools. Parents are concerned about their children at school, who are reporting more nosebleeds, dizziness, disorientation, nausea, and asthma. Fumes from the refinery frequently drift over the school’s track.


DON’T DRINK THE WATER

The EPA has issued a warning to the residents of Pavillion, WY, informing them to not drink tap water and to bathe and wash clothes with windows open and fans running to avoid possible explosions.


QUEBECERS NOT SO EAGER FOR GAS

Quebec is not so eager to begin exploiting its now accessible natural gas reserves. The Canadian province now supplies most of its energy needs through hydroelectric power, of which it has in such abundance that it exports power to other Canadian provinces and the United States. Being
able to meet energy needs with hydropower allows Quebec to boast a green image and leaves Quebeckers less than eager to explore natural gas reserves.

“High Speed Gas” – The Economist  
http://www.economist.com/node/17095616

FRACKING SOLIDS ARE HAZARDOUS WASTE

A new study released from SUNY Buffalo suggests that all waste from hydraulic fracturing can potentially be contaminated with toxic metals, including uranium, and should be treated as hazardous waste.

“Fracking Solids should be treated as Hazardous Waste” - Greenwire  
http://www.eenews.net/Greenwire/2010/10/29/2/

FATAL PIPELINE BLAST NOT THE FIRST VIOLATION FOR THIS COMPANY

Multiple gas lines have been struck during construction causing fatal explosions. The owner of several of these gas lines, Enterprise Products and Partners of Houston, has improperly marked their lines on maps, which are used by the construction companies in order to avoid such disasters.

“Pipeline Operator in Fatal Blast has a History of Violations” - WFAA  

POLITICAL NEWS

GOVERNOR: NYS NOT GOING TO RISK PUBLIC SAFETY OR WATER QUALITY

Governor Paterson made the following remarks on WAMC the day before Thanksgiving:

“This is a very good example of public participation. Our DEC…originally ruled that hydrofracking would not affect the water quality in the area but we’ve received additional information and have not been able to come to a conclusion as to whether or not this is a good idea. Even with the tremendous revenues that will come in at this time…we’re not going to risk public safety or water quality, which will be the next emerging global problem after the energy shortage. At this point, I would say that the hydrofracking opponents have raised enough of an argument to thwart us going forward at this time.”

ATTORNEY GENERAL-ELECT SCHNEIDERMAN OPPOSES FRACKING

New York State Attorney General-elect, Eric Schneiderman, declared that until hydraulic fracturing has been proven safe, he will work to stop any such drilling in New York.

“Attorney General-Elect Schneiderman Staunchly Opposes Hydraulic Fracturing” – The Star Gazette

BAD NEWS FOR DEC

Prior to the firing of former DEC Commissioner Pete Grannis, a leaked memo from inside DEC painted a grim picture of the ability of the already-understaffed agency to effectively regulate natural gas drilling in NY.

“Leaked Memo Depicts Bare-Bones Regulatory Environment for NY Gas Drilling” – Propublica

NATURAL GAS INDUSTRY SUPPORTED GOP IN PA

Large natural gas companies made significant donations to Republicans in a state where there are no donation limits. Many of the donations came from out of state.

“Natural Gas Industry Spent Heavily on Pennsylvania Republican Candidates” – The Philadelphia Inquirer

GOP GAINS IN PA EXPECTED TO INCREASE NATURAL GAS DRILLING

The recent GOP victory in the Pennsylvania gubernatorial race could mean an increase in natural gas drilling. The GOP takeover in the House of Representatives will also likely stall additional regulations for the gas drilling industry, allowing more drilling to occur with less hinderance.

“GOP Victory could Boost Natural Gas Drilling” – Press Connects
LEGISLATIVE UPDATE

PITTSBURGH CITY COUNCIL VOTES TO BAN DRILLING

City Council members unanimously voted to pass a measure banning natural gas drilling within the city limits, making Pittsburgh the first city in the country to pass such a measure. The council members cited health and environmental concerns as the rationale behind their ban. The bill now goes to the Mayor for approval.


ARKANSAS TO PASS FRACKING FLUID DISCLOSURE LEGISLATION

Arkansas is considering passing legislation that would require gas companies to reveal what chemicals they use in gas drilling. If passed, Arkansas would be the second state in the country, after Wyoming, requiring this information.

“Arkansas Board Set to Create Rule on Fracking” – The Baxter Bulletin
http://www.baxterbulletin.com/article/20101101/NEWS01/11010313/Arkansas-board-set-to-create-rule-on-fracking

GAS COMPANIES SEEK TO KEEP FRACKING CHEMICALS SECRET

ChemEOR and CESI Chemical Inc. have both requested that their formulas for natural gas drilling fluids be exempt from Wyoming’s new law requiring disclosure and remain a secret to the public. The companies would, however, release the formulas to the government.

“Two Companies Seek Trade Secret Status for Fracking Fluids in Wyoming” - Propublica
http://www.propublica.org/article/two-companies-seek-trade-secret-status-for-fracking-fluids-in-wyoming

OBAMA A NATURAL GAS ENTHUSIAST?

President Obama announced in his post-election news conference that natural gas development could be an area in which that Democrats and Republicans can find common ground. It has been unclear where the President stands on natural gas, which is why this announcement comes as a surprise.

CITY IN TEXAS TO REQUIRE FRACKING FLUID DISCLOSURE

Despite the threat of a lawsuit from gas companies, the Colleyville City Council in Texas voted to pass legislation that would require pipeline companies to submit all pipeline plans to City Council review and approval before construction can begin.

“Gas Rules Approved” – The Star Telegram

EPA TO REQUIRE STRICter GREENHOUSE GAS REPORTING

The EPA will now be requiring all companies that emit more than 25,000 metric tons of CO2 equivalent per year to monitor and report all greenhouse gas emissions.

“EPA Finalizes Greenhouse Gas Reporting Requirements for Petroleum and Natural Gas Industry” - EPA
http://yosemite.epa.gov/opa/admpress.nsf/d0cf6618525a9efb85257359003fb69d/8518e9bdc820460a852577d600591852!OpenDocument

PA GOVERNOR STOPS GAS EXPLORATION IN STATE FORESTS

Pennsylvania Governor Ed Rendell issued an executive order halting all natural gas exploration in Pennsylvania’s state forests. Gov. Rendell declared, "We simply cannot risk subjecting these sensitive and high-value tracts to the same kind of environmental accidents and mishaps that have happened on private lands elsewhere in the state because of the drilling industry's poor practices."

“Pa. Governor Blocks Gas Leases” - UPI

INDUSTRy NEWS

EPA SUBPEONAS HALLIBURTON FOR NOT RELEASEING CHEMICAL LIST

As part of an effort to study the effects fracking may have on drinking water, the EPA as requested energy companies to disclose the chemicals used in their fracking formulas. Halliburton is one of nine energy companies that have refused to disclose their formula.

“EPA: Halliburton Issued Subpoena for Refusing to Disclose Hydraulic Fracturing, ‘Fracking,’ Chemical Ingredients” – The Huffington Post
NATURAL GAS PRICES DROP

Developments in horizontal gas drilling have allowed more natural gas to be extracted, which is leading to a decrease in price.

“More Firms Expected to Follow Conoco in Gas Shut In” - Reuters  
http://www.reuters.com/article/idUSN2720610620101027

CHESAPEAKE CEO DREAMS OF CARS POWERED BY NATURAL GAS

Aubrey McClendon, CEO of Chesapeake Energy, is calling for cars to run on natural gas as a way to increase the demand for gas.

“Chesapeake CEO’s Quest: Cars Running on Liquefied Natural Gas” – The Star Telegram  
http://www.star-telegram.com/2010/11/03/2602454/chesapeake-ceos-quest-cars-running.html#ixzz14KIqMeQ3

HALT PRODUCTION UNTIL PRICE RISES

Chesapeake Energy plans to reduce its Haynesville natural gas production until next year if gas prices do not rise. They will continue at pace in the Barnett and Marcellus shales.

“Chesapeake to Cut Natgas Output Unless Prices Rise” - Reuters  
http://www.reuters.com/article/idUSN0315010120101103

CHEVRON WANTS A PIECE OF THE NATURAL GAS PIE

Chevron has proposed to buy Atlas Energy in order to gain access to its Marcellus shale land in West Virginia, Ohio, Pennsylvania and New York.


EXXON INVESTS IN MORE NATURAL GAS

Exxon-Mobil doubled its natural gas reserve last year by acquiring XTO Energy for $41 billion. Exxon-Mobil, the largest publically traded company in the world, believes that the future of energy lies in natural gas and is making business decisions accordingly.

“A Big Bet on Natural Gas” – The New York Times  
ENERGY CRISIS NO MORE?

The predicted energy crisis of a few years ago sparked an increase in technological development that has allowed previously inaccessible fuel sources to become profitable. Unfortunately, this rapid development may have left safety and precautions lagging.

“There Will Be Fuel” – The New York Times

TAKE ACTION

EARTHWORKS AND OTHER GROUPS LAUNCH GAS DRILLING WEBSITE:
www.cleanwaternotdirtydrilling.org

JOIN THE “DON’T FRACK WITH NY” FACEBOOK PAGE:
Riverkeeper’s blog, Don’t Frack with NY, now has over 6,000 friends who can stay up-to-date on fracking stories and take action. Join us online at: http://dontfrackwithny.com/ and on facebook at: http://www.facebook.com/dontfrackwithny.

NRDC DOCUMENTS CASES OF DRINKING WATER CONTAMINATION:
http://switchboard.nrdc.org/blogs/amall/incidents_where_hydraulic_frac.html

CATSKILL MOUNTAINKEEPER STARTS GAS DRILLING MORATORIUM PETITION TO PRESIDENT OBAMA:
http://www.ipetitions.com/petition/nodrilling/

EARTHWORKS MARCELLUS SHALE CONFERENCE A HUGE SUCCESS

The Earthworks Oil & Gas Accountability Project held its annual convention in Green Tree, PA this year. This was the first time ever the summit was held on the east coast, bringing attention to the growing natural gas industry and associated problems on the east coast.

BACKGROUND

What is the Marcellus Shale?

The Marcellus Shale is a layer of deep sedimentary rock, deposited by an ancient river delta, with the remains of it now forming the Catskill Mountains. The vast Marcellus Shale extends from Tennessee, through most of West Virginia, across Pennsylvania and eastern Ohio, and into the Southern Tier of New York, including the Catskills and the West-of-Hudson portion of the New York City Watershed. New York’s portion of the Marcellus Shale is approximately 18,750 square miles.

What is Hydraulic Fracturing?

Hydraulic fracturing allows drilling companies to extract natural gas from shale reserves such as the Marcellus. Natural gas is trapped within fractures between the grains of this fine-grained rock. Staged from a massive platform (towering hundreds of feet above ground), drillers drill down vertically into the shale, turn 90 degrees to drill horizontally (sometimes over a mile in length), and then inject water, sand and chemicals under high pressure. The pressurized water forms fractures in the rock, which sand and chemicals then prop open, allowing the gas to release.

What are some of the Environmental Impacts?

There are many environmental impacts associated with hydraulic fracturing. Among them are water consumption; wastewater disposal; use of toxic chemicals; substantial truck traffic; air pollution; noise from the loud, twenty-four-hour operations; potential groundwater and well water contamination; deforestation; road building; and surface water runoff from these large industrial sites. The cumulative effect of these impacts may indeed transform entire communities – turning previously rural, agrarian areas – into “fractured communities.” Hydraulic fracturing requires million of gallons of water. The water must be trucked in, stored on-site, and the wastewater disposed of properly (including brines, heavy metals, radionuclides, and other organics that come up with the gas). Even though the gas industry claims that toxic chemicals represent less than 1% of hydrofrack fluid, the U.S. Geological Survey explains that a typical 3 million gallon hydrofrack produces 15,000 gallons of chemical waste. In existing Marcellus wells outside of New York this waste is stored on-site in large holding ponds until trucks haul it away.

For a Q & A on environmental fears regarding industrial gas drilling, see: http://www.reuters.com/article/idUSN1721925220100217

What is the New York City Watershed?

The New York City Watershed, largely in the Catskills, is the source of tap water for over 9 million New Yorkers. The entire New York City Watershed comprises approximately 4.2% of the State’s land, yet supplies unfiltered drinking water to half the State’s population. All surface
water and stormwater runoff within the New York City Watershed drains into large reservoirs and travels via gravity through tunnels and aqueducts to the taps of 8 million New York City residents and 1 million upstate consumers. The 1,560 square mile system in the Catskills (1 million acres) includes six reservoirs and their drainage basins, hundreds of miles of aqueducts and tunnels, and is home to approximately 60,000 people. The New York City Watershed, including its infrastructure, is the State’s greatest natural resource and the City’s greatest capital asset.

Riverkeeper played an instrumental role in protecting the source of this tap water when it helped structure the 1997 Watershed Memorandum of Agreement, a landmark agreement that establishes ground-rules for protecting the City’s water supply. This agreement set the stage for the City to continue to receive a waiver from federal laws otherwise requiring filtration. This waiver is known as the filtration avoidance determination (FAD). The FAD allows the City to avoid building a new $10 billion water filtration plant, in exchange for strong watershed protection programs.

Possible gas drilling within the New York City Watershed, and in or near the Catskill Park, is one key reason why Governor Paterson ordered the New York State Department of Environmental Conservation to update its 1992 environmental impact study on gas drilling.

**What is the Hudson River Watershed?**

The Hudson River Watershed spans approximately 13,400 square miles throughout 30 New York counties. The Hudson River flows 315 miles from the Adirondack Mountains to New York City and has a network of over 15,000 miles of freshwater tributaries. Although the Hudson River was once described as an open sewer, today it is provides drinking water for at least seven towns and cities along its banks including the City of Poughkeepsie, Port Ewen, Highland, and Village of Rhinebeck. There are eight counties in the Hudson River Watershed that underlie the Marcellus Shale and ten that underlie the Utica Shale. As this process emerges in New York it is imperative to consider the possible wide-spread effects of contaminating the expansive water system and impacting the lives of residents who depend on its ecological integrity.

**What About Other Important Environmental Areas?**

The Marcellus and Utica Shales underlie most of the Catskills and the Southern Tier of New York. This area is home to the “forever wild” lands of the Adirondack and Catskills parks, and the vast systems of creeks and rivers that comprise the upper Delaware River Basin, the Mohawk River, the upper Hudson, the Finger Lakes, and the renowned trout fishing streams of the Catskills. Numerous other state parks, preserves, and wetland areas provide critical habitat for fish and wildlife, serve a variety of ecosystem functions such as water filtration, and are also major tourist and recreational areas. These areas all warrant significant attention and no drilling should be allowed until proper rules and regulations have been promulgated to adequately address concerns of environmental contamination and negative impacts to the special character of these regions. Hydraulic fracturing should not threaten anyone’s drinking water, whether it flows up from a local well or down from the cool, clear streams of the Catskills.