INTRODUCTION

Since the summer of 2008 Riverkeeper has tracked the prospect of industrial gas drilling in New York State. While gas drilling in New York is not new, what is new is the magnitude, scope, and location of the proposed drilling method of high-volume hydraulic fracturing. Indeed, industrial gas drilling throughout the Marcellus Shale and other shale reserves has the potential to impact the environment and communities dramatically.

Riverkeeper’s Industrial Gas Drilling Reporter compiles information from around the country associated with this activity – from New York’s ongoing environmental impact study to reported drinking water contamination in states where industrial gas drilling already occurs.

Our goal is to educate our members and the general public on this important and dynamic issue, and to help concerned citizens make informed decisions as this process moves forward.

This is Volume 7 of Riverkeeper’s Industrial Gas Drilling Reporter. Visit our website to review Volumes 1 - 6: http://www.riverkeeper.org/campaigns/safeguard/gas-drilling/.

NOTE: Links to all websites in this volume are current as of the release date. Should a link not work, please cut and paste the link into a web browser.

TABLE OF CONTENTS

SEQRA Update ........................................................................................................................................4
Fractured Communities .........................................................................................................................4
   Lessons from other shale reserves
New Reports and Studies .....................................................................................................................11
   A collection of recent reports and studies
Legislative and Political Update ........................................................................................................12
   The status of federal, state, and local regulations
Industry New and Announcements .................................................................................................14
   Recent announcements and news from the gas drilling industry
Take Action – How the public can get involved .............................................................................15
Background – Marcellus Shale, Hydraulic Fracturing and Impacts................................................16
Acknowledgements

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Cover photo of a well site during active Marcellus Shale drilling in Upshur County, West Virginia, in 2008. (An additional water storage pit is not in the photo.) Used by permission of West Virginia Surface Owners’ Rights Organization: www.wvsoro.org. Copyright WVSORO, June 2008.

Riverkeeper is an independent environmental organization dedicated to protecting the Hudson River, its tributaries, and the New York City drinking water supply. For more information about us please visit www.riverkeeper.org.

Riverkeeper is a member of the Clean Drinking Water Coalition, comprised of certain environmental signatories to the 1997 New York City Watershed Memorandum of Agreement.

Riverkeeper is a founding member of the Waterkeeper Alliance (www.waterkeeper.org) an international organization that works with over 190 Waterkeepers to protect waterways around the globe.

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SEQRA Update

NYS DEC EXCLUDES NYC WATERSHED AND SYRACUSE WATERSHED FROM SGEIS

In a surprise announcement, the New York State Department of Environmental Conservation has decided to exclude the New York City Watershed and lands supplying the Syracuse drinking water supply from the Supplemental Generic Environmental Impact Statement (SGEIS). Together, these areas provide unfiltered drinking water to over half the population of New York State, and are subject to Filtration Avoidance Determinations (FADs) from the U.S. Environmental Protection Agency, which allow municipalities to avoid the expensive costs of filtration. A filtration plant for the NYC Watershed alone is estimated to cost up to $10 billion to construct and millions more to operate each year. DEC announced that applications to drill in these watersheds will instead “require a case-by-case environmental review process” to establish whether impacts can be mitigated.


Fractured Communities

PA TAKES ACTION AGAINST CABOT OIL & GAS

On April 15, 2010 the Pennsylvania Department of Environmental Protection (PA DEP) took aggressive action against Cabot Oil & Gas for contaminating drinking water supplies in Dimock, PA. The PA DEP ordered Cabot to plug three wells believed to be the source of drinking water contamination and install treatment systems in affected homes. PA DEP suspended all of Cabot’s permit applications and fined the industrial gas drilling company $240,000. Notably, PA DEP found that Cabot had failed to comply with a 2009 consent order. PA DEP’s chief said: “Gas migration is a serious issue that can have dire consequences to affected communities.”

[http://www.portal.state.pa.us/portal/server.pt/community/newsroom/14287?id=10586&typeid=1](http://www.portal.state.pa.us/portal/server.pt/community/newsroom/14287?id=10586&typeid=1)

[http://www.reuters.com/article/idUSSGE63E0K620100415](http://www.reuters.com/article/idUSSGE63E0K620100415)

GAS DRILLING CONTAMINATES DRINKING WATER IN SHREVEPORT, LA – FAMILIES EVACUATED

An over-pressurized industrial gas drilling well in the Haynesville Shale caused natural gas to leak into the Wilcox Aquifer and contaminate several private wells. State officials ordered 100 families to evacuate their homes because “at this point we are not saying your homes are safe.”


[http://www.shreveporttimes.com/article/20100420/NEWS01/4200318/Officials-expanding-water-testing-area](http://www.shreveporttimes.com/article/20100420/NEWS01/4200318/Officials-expanding-water-testing-area)
NEW YORK WATCHING PA DRINKING WATER CONTAMINATION

New York State DEC officials are paying attention to recent incidents of industrial gas drilling contamination of drinking water in Pennsylvania.


GOV. PATERSON SAYS NEW YORK NOT RUSHING TO DRILL

Speaking at an Earth Day event, Governor Paterson stated that New York will not sacrifice environmental review of gas drilling impacts for expediency.

http://www.pressconnects.com/article/20100420/NEWS11/4200346/On+natural+gas+drilling++Pate rson+says+expediency+will+not+outweigh+safety

IN CONTRAST, NY DEC SAYS IT WILL ISSUE DRILLING PERMITS IN 2010

Bradley Field, Director of DEC’s Division of Mineral Resources, said that DEC would complete its environmental review and issue gas drilling permit by the end of 2010. At the same conference, DEC Commissioner Pete Grannis said that a staff shortage is slowing the agency’s review of comments on the Draft SGEIS, and that DEC expects to finish it in late summer or early fall.


PA WASTEWATER TREATMENT PLANT FINED $75,000

In February 2010 PA DEP fined the borough of Jersey Shore, PA $75,000 for violations associated with its treatment of industrial gas drilling wastewater during 2008 and 2009. The borough’s wastewater treatment plant illegally processed wastewater with excessive chloride and exceeded other limits. In June, 2009 the PA DEP had ordered the plant to stop accepting gas well wastewater.

http://www.portal.state.pa.us/portal/server.pt/community/newsroom/14287?id=9193&typeid=1

PA ORDERS GAS DRILLERS TO RESTORE PRIVATE WATER SUPPLIES

The PA DEP ordered Schreiner Oil and Gas to provide a permanent solution for two homes where DEP found the company liable for contaminating the drinking water supply. The order also directs the company to maintain the water supply at seven other homes it contaminated, and to improve the cement casing at three of its wells to prevent further contamination.

http://www.portal.state.pa.us/portal/server.pt/community/newsroom/14287?id=9348&typeid=1

CHESAPEAKE, SCHLUMBERGER FINED FOR CATTLE DEATHS

The Louisiana Department of Environmental Quality recently announced a pending settlement with Chesapeake Energy and its contractor Schlumberger Technology that would require the companies to pay $22,000 each for the death of 17 heads of cattle near a gas drilling site in Louisiana.
FOAMY DISCHARGE IN PA LINKED TO GAS INDUSTRY

In late March 2010, a foamy discharge appeared in Waterville, PA. The PA DEP later linked this discharge to a chemical used in the industrial gas drilling process.

http://www.sungazette.com/page/content.detail/id/540787.html?nav=5011

PROF. ENGELDER CAUTIONS BOTH SIDES OF SHALE DEBATE

Professor Terry Engelder of Penn State advises both the gas drilling industry and some environmentalists to avoid disingenuous arguments regarding gas drilling. The Op-Ed also discusses methane migration in Pennsylvania.


PIPELINE COMPANIES WANT TO USE EMINENT DOMAIN IN PA

According to the PA Public Utility Commission, six gas pipeline companies are registered as public utilities, giving them the right to use eminent domain to site pipelines in PA. In January 2010 a Texas company applied to the PA Commission to build a pipeline in Susquehanna County. The Commission is now considering whether to refine its rules.

http://www.philly.com/inquirer/business/20100416_Eminent_domain_an_issue_in_siting_Pa_gas_lines.html
http://www.pittsburghlive.com/x/pittsburghtrib/business/s_676478.html
http://www.post-gazette.com/pg/10077/1043759-113.stm

CHESAPEAKE TO DRILL IN WV PARK; WV COUNTY EXPECTED TO SIGN LEASE

Following Oglebay Park’s lease payment of nearly $1 million, Ohio County in West Virginia now wants to lease county land for $2,000 an acre and up to 20 percent royalties.

http://www.news-register.net/page/content.detail/id/536793.html?nav=515

CHEMUNG COUNTY, NY AGREES TO ACCEPT MARCELLUS WASTE

In exchange for $11 million, the Chemung County Legislature agreed to accept radioactive Marcellus drill cuttings at its landfill.

http://www.pressconnects.com/article/20100412/NEWS01/4120390/Proposed-changes-to-landfill-agreement-approved-by-Chemung-legislature
PA TOWN AGREES TO DRILLING ON CONDITION DRILLER PAYS FOR ROADS

Lehman Township, in northeastern PA, approved an ordinance allowing Encana Oil and Gas to start drilling on the condition that the driller put up over $50,000 to maintain local roads and also provide insurance coverage for the town.

INDUSTRIAL GAS DRILLERS WANT NEW YORK TO AUCTION STATE LANDS

An industrial gas drilling lobbying group is urging New York State lawmakers to expedite the auction of state lands for gas drilling. A broad consortium of environmental groups quickly responded to this public relations move, which was announced shortly after the state indicated it may have to close public parks because of state budget shortfalls.

TOXICS TARGETING CHALLENGES DEC’S CLAIM OF NO DRILLING PROBLEMS

NY DEC has long claimed no problems with hydraulic fracturing in New York. However, Toxics Targeting points to data from the Chautauqua County Health Department that it received over 140 complaints of water pollution and gas migration related to nearby drilling.

STORAGE PIT AND CHEMICAL TANK FIRE IN PENNSYLVANIA

On April 1, 2010 both a tank and open pit used to store fracking fluid caught fire. Residents had been complaining of noxious odors at the site for days before the fire. Flames were at least 100 feet high and 50 feet wide, with the plume of black smoke visible for miles. A state police fire marshal ruled the blaze an accident and estimated it caused Atlas Energy $375,000 in damages.

WHAT THE FRACK – SCIENTIFIC AMERICAN EXPLORES FRACKING

*Scientific American* released a detailed story on industrial gas drilling. The article discusses the environmental implications of extracting natural gas and has a slideshow of the process.
RESIDENTS IN DIMOCK, PA FIGHT BACK

Citizens for Clean Water fights back in Dimock, PA after industrial gas drilling pollutes their drinking water. A reporter from the NBC affiliate in Binghamton, NY attempted to interview Cabot employees only to have Cabot employees throw mud on him. them.

http://www.newschannel34.com/mediacenter/local.aspx?videoid=21293@wbgh.web.entriq.net&nавCatId=3

MUD SPILL CAUSES PA LAWMAKERS TO CALL FOR MORATORIUM ON LEASE OF STATE FOREST LAND

Up to 12,000 gallons of mud used in an industrial gas drilling operation spilled because of human error, but did not contaminate nearby water resources. The synthetic mud was used as a cooling agent in the drilling process. The state had leased the land in January 2010.


ANGLERS WarnED ABOUT GAS DRILLING WASTEWATER ISSUES

The Pennsylvania Fish and Boat Commission launched a plan to protect native trout from gas drilling contamination, this following the PA DEP’s Chief John Hanger’s statements that Marcellus wastewater discharges have already harmed aquatic habitat and impaired drinking water supplies.

http://www.post-gazette.com/pg/10107/1051146-358.stm

PHILADELPHIA INQUIRER – PA PLAYING CATCH-UP WITH REGULATIONS

The Philadelphia Inquirer Editorial Board criticized state officials for reactive, not proactive, measures to address impacts from industrial gas drilling. The paper urged public disclosure of chemicals, enhanced environmental protections, and encouraged a severance tax on industry.

http://www.philly.com/inquirer/opinion/88797112.html

PA RESIDENTS FIGHT BACK AGAINST NOISE FROM GAS COMPRESSOR

Citizens in Washington County, Pennsylvania are taking a stand against a noisy gas compressor station. The two-story station runs 24 hours a day and is “lit up at night like a minor league baseball park.”

PA REQUIRES DRILLING INDUSTRY TO REVEAL PRODUCTION DATA

Reversing a 25-year old law, Pennsylvania now will require the gas drilling industry to promptly disclose production data. The measure is seen as removing the aura of secrecy from the process.

http://www.pressconnects.com/article/20100316/NEWS11/100316006/Pa.+to+reveal+drillers++secrets+in+gas+shale+rush+

LOCAL GOVERNMENTS FORCE INDUSTRY TO PAY FOR ROAD REPAIRS

Read how New York towns are already struggling to pay for road repairs – from truck traffic associated with drilling in tight sandstones.


CORNELL PROFESSOR DR. INGRAFFEA DISCUSSES UNDERGROUND INJECTION OF WASTEWATER

Watch an expert discuss underground injection of wastewater, where to find information on it, and potential impacts:

http://www.mefeedia.com/watch/28577813

DOCUMENTARY EXPLORES POTENTIAL DRILLING IN NEW YORK

The WNET documentary, Fragile Waterways, explores the issue of gas drilling in New York. The portion on the Marcellus Shale starts at 29 minutes into the hour-long documentary.

Watch it online: http://www.thirteen.org/fragile-waterways/

Lessons from the Barnett Shale

SMU RESEARCHERS FIND LINK BETWEEN EARTHQUAKES AT AIRPORT AND WASTEWATER DISPOSAL

Researchers from Southern Methodist University have concluded there is a link between a series of small earthquakes at Dallas/Fort Worth Airport and Chesapeake Energy’s injection wells to dispose of gas drilling wastewater. Chesapeake disputes the report’s findings.


Read the report: http://smu.edu/newsinfo/pdf-files/earthquake-study-10march2010.pdf

MOST BARNETT SHALE FACILITIES RELEASE TOXIC AIR EMISSIONS

The Dallas Morning News completed a study of government records and found a pattern of toxic emissions, including benzene, in often invisible plumes. Scientists are now finding these emissions at nearly every component of the Barnett Shale production system, including wells, compressor
stations, gas processing plants and other areas. Many facilities are near homes, and one is adjacent to a playground. EPA is now studying whether some Barnett facilities should be regulated as major pollution sources.


See where infrared videos documented these emissions on this map:


TEXAS STUDY FINDS TOXINS IN RESIDENTS OF DISH, TX

A recent sampling of blood and urine suggests that residents’ bodies contain the same toxics found in the air and water. The study began after complaints about the environmental impact of nearby gas wells and large gas compressor stations. A full study is to be released in the coming weeks.

http://www.star-telegram.com/2010/04/13/2112359/study-finds-toxins-in-dish-residents.html#ixzz0l4m3xzzl

BARNETT GAS DRILLERS FEEL PRESSURE ON AIR QUALITY ISSUES

The Texas Commission on Environmental Quality found elevated levels of benzene at Barnett Shale facilities and found that long-term monitoring is a must due to the well density and related facilities sited in highly populated areas.


BARNETT SHALE EUPHORIA TURNING TO REMORSE

With a long history of oil and gas exploration, most residents in Fort Worth, Texas didn’t think much when industrial gas drilling first started. Now, however, after more than 1,000 wells drilled within Fort Worth’s city limits (including a drilling rig pictured adjacent to a playground), many residents are re-thinking their acceptance of this practice.

http://www.philly.com/philly/business/20100411_WELL__WELL_NEIGHBOR.html

BARNETT SHALE LANDOWNERS’ LIVES CHANGED OVERNIGHT

This story details how a Texas family’s lives changed overnight when gas drillers showed up. Months later the property became the site of the Texas Commission on Environmental Quality’s first enforcement action.

http://www.dentonrc.com/sharedcontent/dws/drc/localnews/stories/DRC_Ruggieros_0328.1ee8c9ff0.html
**NEW REPORTS AND STUDIES**

**EPA TO STUDY LIFE CYCLE IMPACTS OF HYDRAULIC FRACTURING ON DRINKING WATER**

The US EPA announced the first-ever comprehensive study into the full, life cycle, impacts of hydraulic fracturing on drinking water.


http://www.post-gazette.com/pg/10083/1045084-192.stm


EPA’s Bush-era 2004 study on impacts from hydraulic fracturing into coalbed methane was criticized roundly, including by EPA’s own scientists.


Riverkeeper, NRDC and many other Waterkeepers across the country submitted comments on EPA’s proposed research approach for this study.


In response to EPA’s announcement, many have called on New York State to wait until EPA finishes the study before moving forward with drilling: http://www.buffalonews.com/2010/03/30/1003524/go-slow-on-shale-gas.html

Listen to a podcast from Pro Publica on this issue: http://www.propublica.org/ion/podcast/item/11-joaquin-sapien-and-abrahm-lustgarten-on-the-epa-and-gas-drilling-by-mike

**PITTSBURGH GEOLOGICAL SOCIETY REPORTS ON GAS MIGRATION PROBLEMS**

The Pittsburgh Geological Society prepared a brief report on natural gas (methane) migration in Western Pennsylvania.

http://www.pittsburghgeologicalsociety.org/naturalgas.pdf

**DOING IT RIGHT – ENSURING RESPONSIBLE GAS DEVELOPMENT ON PUBLIC LANDS**

The Wilderness Society released a new report in Spring 2010: *Doing it Right – Ensuring Responsible Natural Gas Development on Public Lands*. The report calls for certain sensitive lands to be placed off-limits to leasing and development and calls for protection of crucial wildlife habitat among other things. It also points out the significant air and water impacts from natural gas development.

ECONOMIC IMPACT OF MARCELLUS ON JOBS QUESTIONED

A new expert study, “Unanswered Questions About the Economic Impact of Gas Drilling in the Marcellus Shale,” reports that the gas industry’s rosy predictions for job growth from Marcellus Development were more assertions than facts. The report concludes that Marcellus development may have a negative economic impact.


Read the report: http://occainfo.org/documents/Economicpaper.pdf

CORNELL PROFESSOR – FRACKING NOT A CLEAN ALTERNATIVE

In a new paper, Cornell Ecology Professor Robert Howarth argues that natural gas obtained through hydraulic fracturing should not be considered a cleaner alternative than coal or oil, relative to greenhouse gas emissions. Howarth argues that the current calculations of carbon dioxide emissions from natural gas omit emissions from all aspects of industrial gas drilling, including well drilling, trucking, pipelines and clear-cutting forests.

http://www.reuters.com/article/idUSN3119687220100331

LEGISLATIVE AND POLITICAL UPDATE

CONGRESSMEN RESIST CALL FOR IMMEDIATE FRACKING LEGISLATION

Members of the House Energy and Commerce Committee, the committee in the U.S. House of Representatives currently investigating hydraulic fracturing, have called on Congress to not repeal the Halliburton Loophole and to continue to exempt the process from the Safe Drinking Water Act.

http://www.reuters.com/article/idUSN2711218120100427


NEW YORK CITY CONGRESSIONAL DELEGATION TELLS GOV. PATERSON TO PROTECT OUR WATER

Six members of New York City’s congressional delegation sent a letter to Governor Paterson calling on the state legislature to ban drilling in sources of surface drinking water supplies or for DEC to sequester those areas from drilling.

SULLIVAN COUNTY, NY BANS GAS DRILLING ON COUNTY LAND
The Sullivan County Legislature voted unanimously to ban drilling on county property until all environmental impacts are mitigated.


PHILADELPHIA CITY COUNCIL URGES BAN ON DRILLING
The Philadelphia City Council passed a resolution calling on the Delaware River Basin Commission not to approve any water withdrawal permit applications until a full environmental impact assessment of hydraulic fracturing is completed.

http://www.reuters.com/article/idUSTRE62P0GC20100326

PA DEP SECRETARY HANGER CALLS FOR TIGHTER WASTEWATER RULES
PA DEP Secretary John Hanger, addressing state Republicans, called for stricter wastewater controls regarding Marcellus Shale development. Hanger called dissolved solids in drilling wastewater a “real threat” to rivers and streams and said that this pollution has already degraded major drinking water sources.

http://www.post-gazette.com/pg/10097/1048546-100.stm

PA GUBERNATORIAL CANDIDATE CALLS FOR MORATORIUM ON INDUSTRIAL GAS DRILLING
Former Congressman and current Montgomery County Commissioner Joe Hoeffel has called for a moratorium on industrial gas drilling in Pennsylvania “until industry deals with the issue of waste water.” Hoeffel made the comments after listening to residents who live with impacts of industrial gas drilling.

http://www.huffingtonpost.com/denise-dennis/joe-hoeffel-pennsylvania_b_534865.html

PA GOVERNOR RENDELL WARNS GAS DRILLING INDUSTRY NOT TO FIGHT TAX
Pennsylvania Governor Rendell warned the industrial gas drilling industry, at an energy conference in Texas, that it should not fight a severance tax. The Governor cited a growing public backlash to Marcellus Shale drilling and said that accepting a severance tax now was the best way to avoid a bigger tax in the future.

INDUSTRY NEWS AND ANNOUNCEMENTS

EXXON URGES DISCLOSURE OF FRACKING CHEMICALS

Exxon Mobil, which acquired the industrial gas drilling company XTO Energy for $29.2 billion in December 2009, announced it wants public disclosure of hydraulic fracturing chemicals. However, Exxon is not urging disclosure of the amount of chemicals, only disclosure of the list of ingredients used in the hydraulic fracturing process.


RELIANCE INDUSTRIES ENTERS JOINT VENTURE WITH ATLAS ENERGY

In another large gas acquisition, Reliance Industries, a large Indian conglomerate, paid $1.7 billion for a 40% stake in Atlas’ Energy’s interest in the Marcellus Shale.

[http://online.wsj.com/article/SB10001424052702304024604575173401125543186.html](http://online.wsj.com/article/SB10001424052702304024604575173401125543186.html)

BJ SERVICES FAILED TO REPORT VIOLATIONS TO EPA

BJ Services, an oilfield services company, continued to tell EPA it was complying with an agreement not to inject diesel fuel near drinking water aquifers even though it was, and later admitted to Congress it had violated an agreement with EPA.


GAS INDUSTRY HOPES IN NEW YORK FADE IN WAKE OF GOVERNOR PATERSON’S POLITICAL TROUBLE

Consultants for the industrial gas drilling fear that Governor Paterson’s political issues will affect how soon New York will issue permits to drill in New York.

TAKE ACTION

MARCELLUS SHALE CONFERENCE IN PITTSBURGH
The Pennsylvania Environmental Council is sponsoring a major Marcellus Shale policy conference on May 3 and 4, 2010 in Pittsburgh. Speakers include John Hanger, Secretary of the PA DEP, environmental leaders, industry representatives and many others.

http://www.pecpa.org/marcellus

PUBLIC FORUM ON GAS DRILLING IN ITHACA, NY
On May 3, 2010 from 7pm – 9:30pm, several prominent scientists will speak on industrial gas drilling. The speakers include Dr. Tony Ingraffea, Cornell University and Mr. William Kappel, U.S. Geological Survey, Water Resources Division.

Where: Women’s Community Building, 100 W. Seneca St, Ithaca.

http://www.shaleshock.org/2010/05/03/

SIGN A PETITION CALLING ON NEW YORK TO WAIT UNTIL EPA FINISHES ITS STUDY
Sign a petition, started by Catskill Mountainkeeper, calling on the New York State Department of Environmental Conservation (DEC) to wait until EPA completes its comprehensive study into the full life-cycle impacts of hydraulic fracturing before DEC releases a final SGEIS.

http://www.ipetitions.com/petition/nodrilling/


GASLAND TO AIR ON HBO; WINS SPECIAL JURY PRIZE AT SUNDANCE
HBO will air Gasland, Josh Fox’s documentary of industrial gas drilling and winner of the Special Jury Prize at the 2010 Sundance Film Festival, on June 21, 2010. Check local listings.

Also, watch “Gasland” on NOW: http://www.pbs.org/now/shows/613/index.html
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 and is very deep – over 1 mile below ground.

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 to release the gas. The pressurized water forms fractures in the rock, which sand and chemicals then prop open.

What are some of the Environmental Impacts?

There are many environmental impacts associated with hydraulic fracturing, or “hydrofracking.” Among them are water consumption, wastewater disposal, use of toxic chemicals, substantial truck traffic, air pollution, noise from the loud, twenty-four-hour hydrofracking operations, potential groundwater and well water contamination, deforestation, roadbuilding 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 up to 3 million gallons of water per hydrofrack, and typically each well is hydrofracked many times. The water must be trucked in, stored on-site, and the wastewater disposed of properly (nearly all of the fracturing fluid injected returns to the surface, bringing with it materials from underground including brines, heavy metals, radionuclides, and organics). 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 recent 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 entire system delivers 1.2 billion gallons daily. 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 to filter City water, 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 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.