

Marcellus Development Moving Forward?

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Joint Landowners Coalition of NY
Whitney Point, NY
July 26, 2011

Background

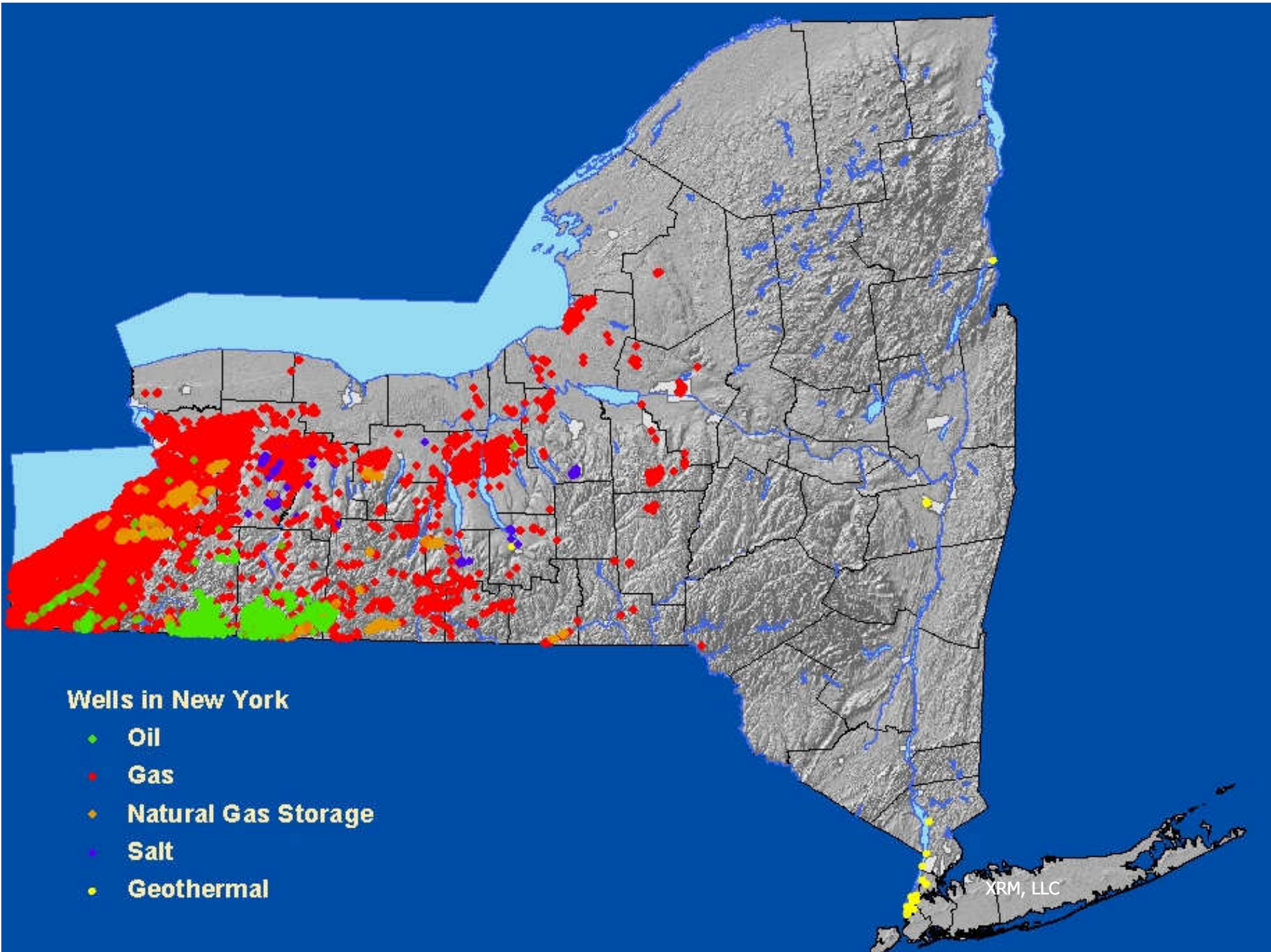
- 33 years at NYSDEC, last 22 as Division Director, Mineral Resources
- Vice President, Governmental Affairs, Spectra Environmental Group
- Principal, Director – Lake Country FracWater Specialists, LLC
- Twin Tiers Landowners Coalition
- IOGA, PIOGA, IPAA member

Public Information

- Not a lawyer
- Not here to advise you
- Here to share my experiences at DEC
- Give you public information
- Here to give you info, answer questions

Topics of the Day

- NYS Oil, Gas and Solution Mining Law and protection of groundwaters
- Spacing of wells
- Supersedure of local laws
- New draft SGEIS, implications, timing
- Economics



Natural Gas - Marcellus Shale

- 500+ trillion cubic feet of natural gas
- Environmentally-preferable fuel
- Technological advances to produce gas from shales now economic
- Near population centers, markets
- In depressed areas of NY, PA
- Second largest gas deposit in world

NYS Oil, Gas and Solution Mining Law

- 1963, IOGCC 1948
- Based on Texas, Oklahoma law
- Modified Law of Capture
- Spacing
- Correlative rights
- Compulsory integration, unitization

Spindletop, Texas 1901



NY's Oil and Gas Regulatory Program

- Modernized by 1981 Amendments
- Developed as a groundwater protection program, permits needed
- Spacing, protection of correlative rights
- Fees for new staff
- Supersedure of local regulation

Casing and Cementing Conditions – 1980's

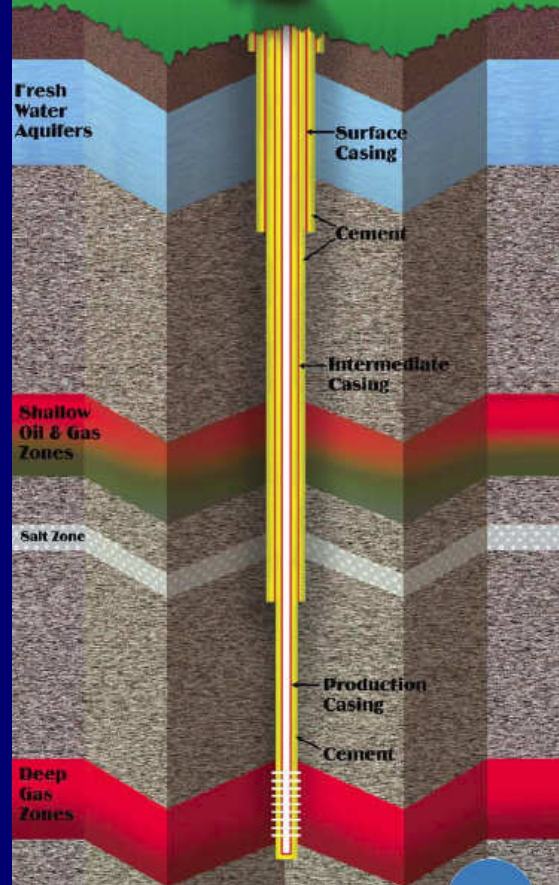
- Developed with industry input
- Redundant protection for groundwater
- two strings of pipe, cement
- Relatively unchanged for almost 30
years
- No well has impacted groundwater in
NY since at least the 1980's*

Groundwater Protection

Well Casing and Cementing Program

The Division of Mineral Resources' well casing and cementing regulations provide for the protection of the State's fresh water aquifers

Regulations require that wells be constructed and operated to prevent the movement of oil, gas or water from one zone to another



New York State Department of Environmental Conservation

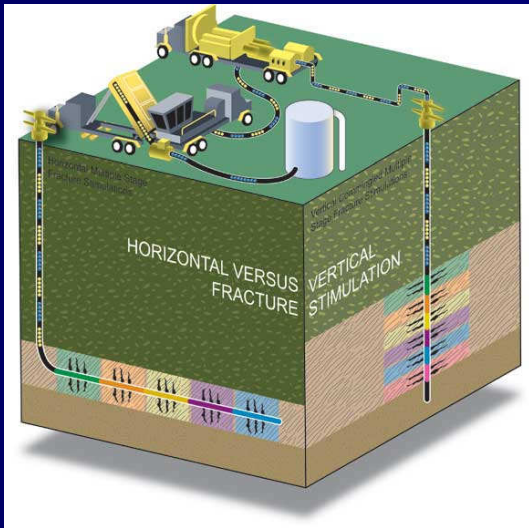
XRM, LLC



Hydraulic Fracturing

- First hydraulic fracturing (granite mining) 1903
- First oil and gas frack 1948
- First commercial oil and gas frack 1949
- Medina sandstone (NYS) 1960s
- First horizontal well frack (Barnett) 1995
- All Barnett wells fracked: over 11,000!

Hydrofracking Experience



- More than 1 million wells hydrofracked since 1940
- Governmental organizations never raised any issues
- Nothing new in shale hydrofrack except more water and chemicals

Therefore, the injected fluid does not come into contact with groundwater; it is, in fact, injected into and recovered through a wellbore that has been specifically constructed to safely convey hydrocarbons under pressure to the surface without negatively impacting fresh water aquifers. The Department has ***no record of any documented instance of groundwater contamination caused by hydraulic fracturing for gas well development in New York, despite the use of this technology in thousands of wells across the state during the past 50 or more years.***

New York State Department of Environmental Conservation
Division of Mineral Resources
Bureau of Oil and Gas Regulation

Defending a Near Perfect Record - DMN

- No impact to groundwater from drilling
- No impact on aquifers from drilling
- No impact to groundwater from hydrofracing
- No lawsuit on any well drilled since 1984
- Yet Marcellus development stalled!

Spacing of Wells

- Size in acres of unit to efficiently drain the resources (conservation, no waste)
- Cannot drain neighbor's property (protection of correlative rights)
- Drilling plan must not leave out properties between wells - stranded
- PA Law of Capture - no Marcellus spacing, no fair pooling statute

NY Marcellus Spacing - Vertical and Horizontal

2005 & 2008 Legislation

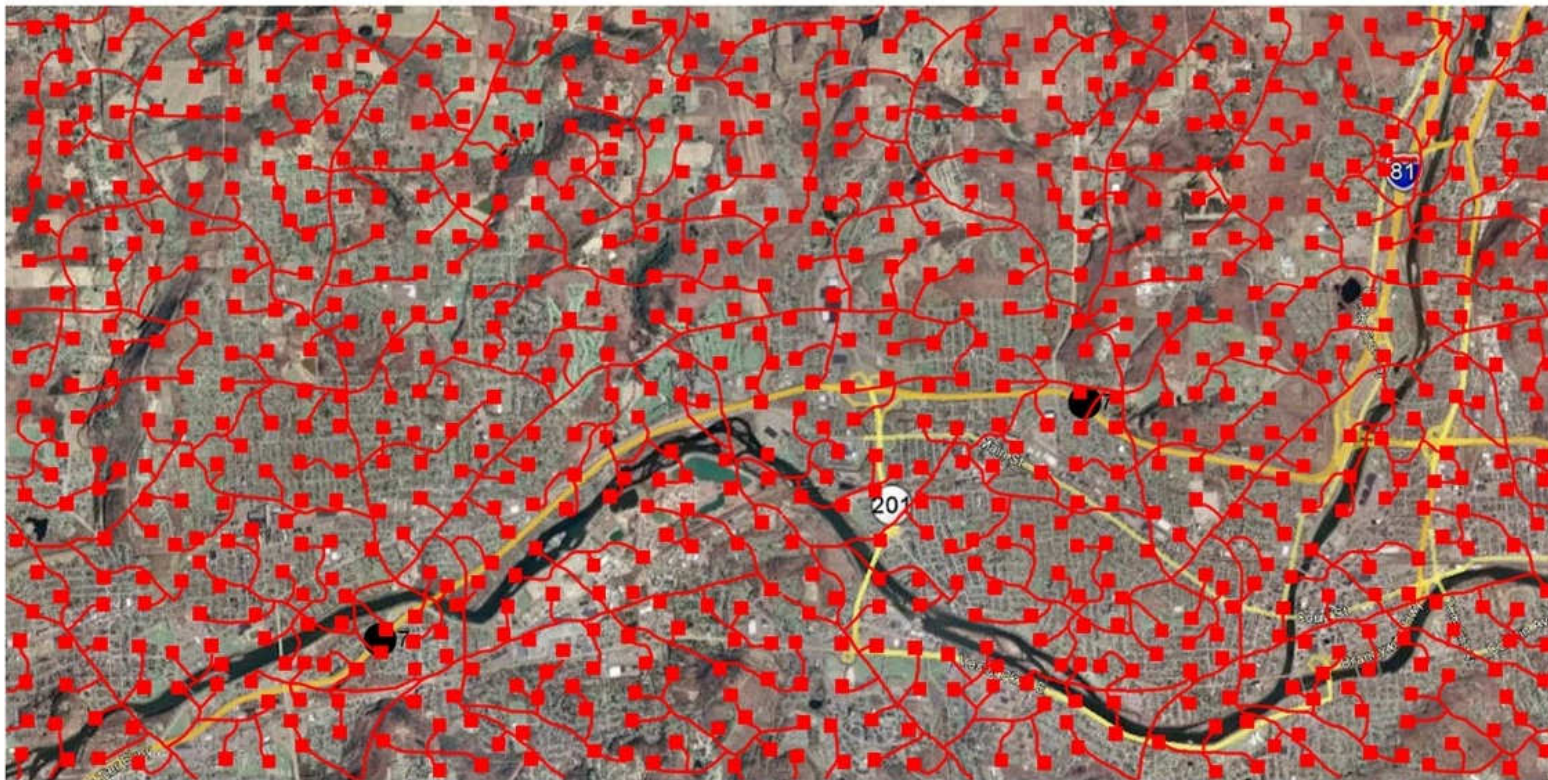
Shale Gas (Vertical Well)	any depth	36 to 44	Wellbore within the target formation no less than 460 feet from any unit boundary
Shale Gas (Horizontal Well - written commitment to drill infill wells with all horizontal infill wells to be drilled from a common pad within three years of the first well drilled)	any depth	Up to 640	Initial horizontal wellbore or wellbores within the target formation approximately centered in the unit and no wellbore in target formation less than 330 feet from any unit boundary
Shale Gas (Horizontal Well - no written commitment to drill infill wells)	any depth	36 to 44 (plus, if applicable, the number of additional acres necessary and sufficient to ensure the horizontal wellbore within the target formation is no less than 330 feet from any unit boundary)	Wellbore within the target formation no less than 330 feet from any unit boundary

Marcellus Land Impact Positive

- Four to five acre drilling pad, consolidated area
- Multiple wells from one location
- Horizontal wells for greater resource recovery
- Smaller footprint, landowner options
- Environmentally, farm friendly

The Spacing Myth

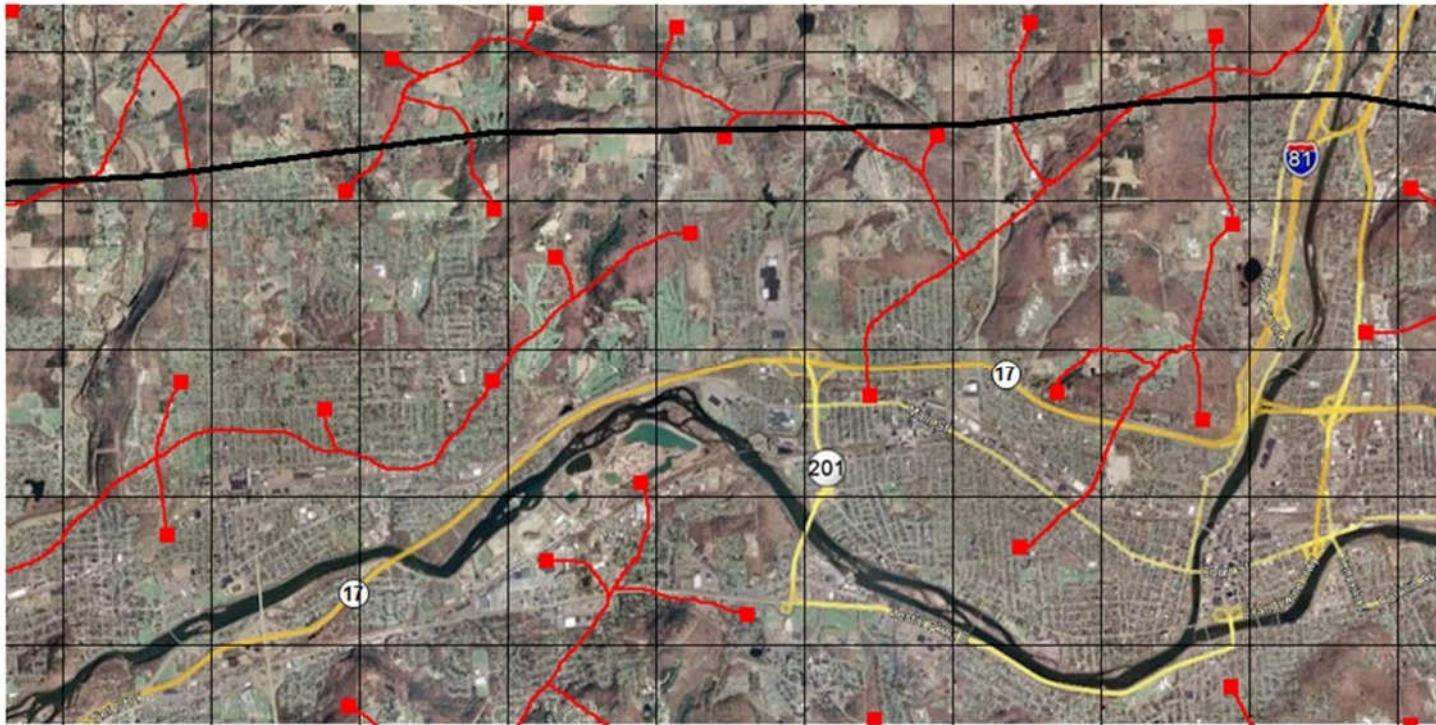
WHAT IF ONE WELL PER 40 ACRES ?



SOURCE: Binghamton Regional Sustainability Coalition, 2009
Reprinted with permission; graphic overlay assumptions on back.

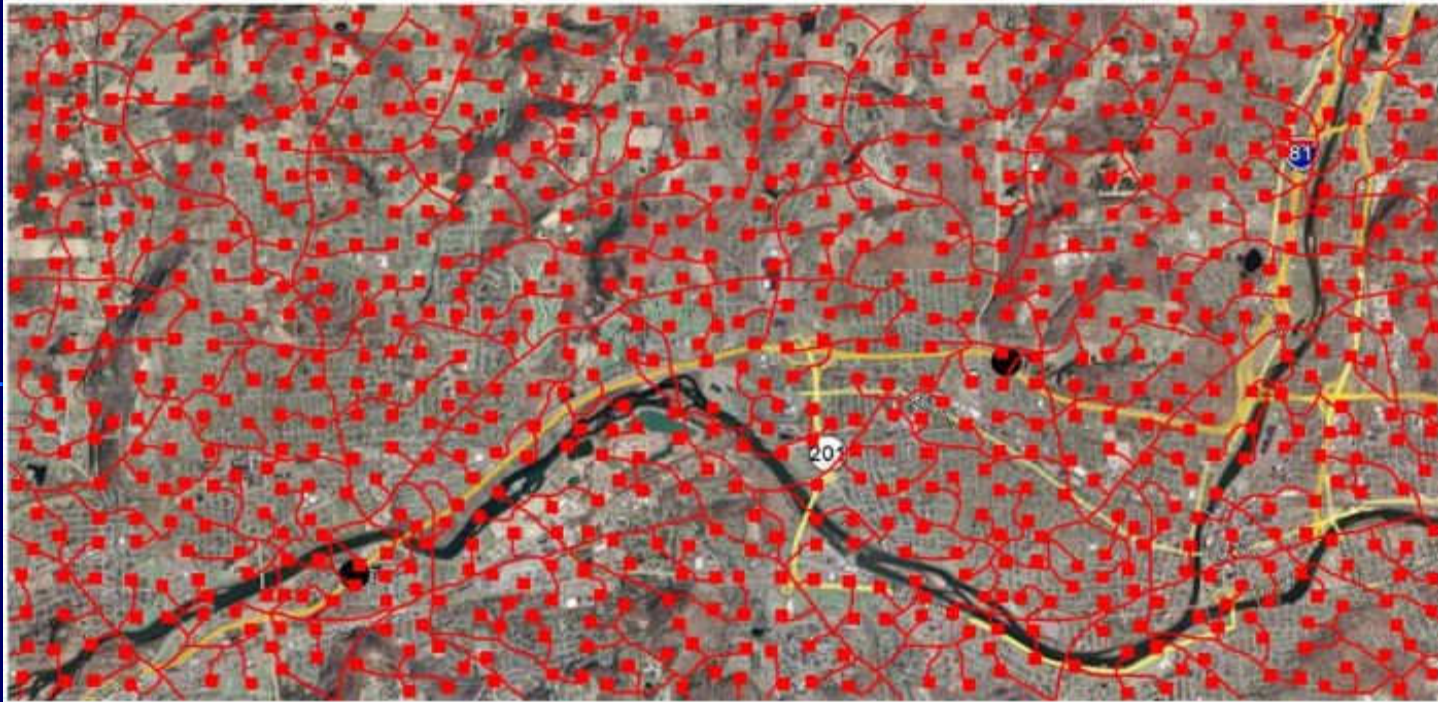
1 mile approx

WHAT IF ONE WELL PAD PER 640 ACRES ?



SOURCE: Broome Community College SOS 120W students, Spring 2010
Well pad density mapping assumptions on back.

1 mile approx.
Millennium Pipeline



So What's The Issue with State Lands?

- Less intrusive environmentally
- Significantly less impact on state lands
- Multiple use roads by gas industry
- Lands given to state for multiple use
- Major loss of revenue to the state

Supersede Legislative Intent

- Clear intent to supersede all local regulation
- Includes zoning
- Given for democrats
- Verified after law was passed with Senate sponsor

Past Problems re Local Regulation

- Safety concerns with untrained staff
- Too expensive to hire staff at local level
- Patchwork of local laws
- Double bonding
- Taxation
- Setback issues

Supersedure

- 'shall supersede all local laws except for roads and taxes'
- Tightly drawn because of problems
- Mineral rights owners recover minerals
- Zoning included
- Legislative intent clear
- Companion tax bill

Why State in Charge?

- Uniform statewide regulatory program
- Can hire professional staff
- Set spacing
- Protect correlative rights
- Hold hearings, make decisions
- Setbacks in zoning conflict with spacing

Why state in charge (cont)

- Setbacks don't respect municipal boundaries
- Property lines only lease lines
- Well drilling conditions need to be uniform

Why Zoning Doesn't Apply (my view)

- Construction site
- Temporal use (SGEIS longer times)
- Right to recover minerals
- Right to recover water
- Minimal land use disturbance
- Farmer, farm friendly; landowner options

Why Zone Out

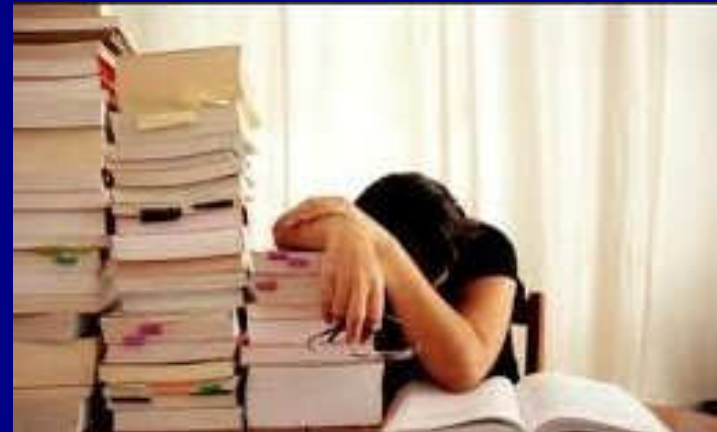
- Won't survive challenge
- May result in landowner 'taking' lawsuits
- Investment in leases lost - lawsuits?
- Companies may leave state
- What about the landowners?
- Keeping farms as farms, open space

Why is 1991 Mining Law (MLRL) Different

- Consumptive land use lasting decades or even centuries; impacts
- Codification of existing cases
- Limited regulation under special use
- Permissible uses in zoning districts
- Partnership between state and local
- No justification, industrial use

Previous SGEIS Steps

- Comment period closed December 2009
- 13,000 comments to consider
- Additional information requested, received
- Governor's veto message 2010 sets stage



Draft SGEIS Released

- Only another draft
- Socio-economic impacts study to be added
- Likely mid August
- Sixty - day review
- Public hearings?



What's New in SGEIS?



- NYC and Syracuse watersheds out
- No surface drilling on state lands
- No surface drilling in aquifers
- Additional well casing
- Advisory panel

Supersedure and SGEIS?

- Applicant certifies consistency with local land use and zoning
- DEC will not review local law
- If not consistent, DEC another review
- No timeframes, criteria for decisions
- Sets up litigation between local government, industry, landowners

What's Wrong with That?

- DEC thinks it is complying with SEQR
- But no need if superseded
- Refuses to confirm what it has done for thirty years
- Shifts litigation, costs to others
- Appeases environmental groups at expense of landowners

Local Governments Hurt

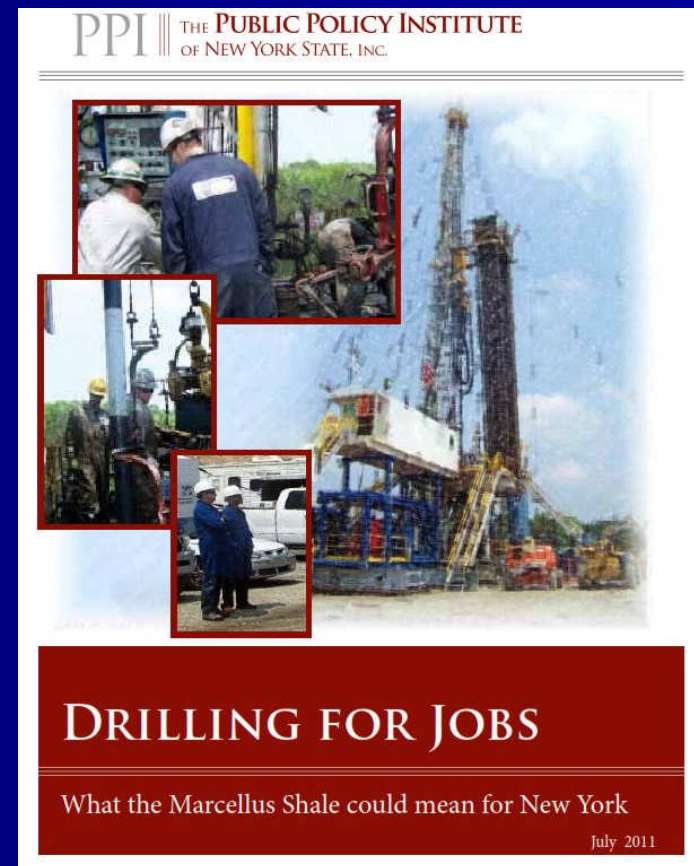
- Will bear litigation costs, divisiveness in communities
- Will lose on supersedure issue
- May facing 'takings' lawsuits from landowners
- Landowners may lose out by companies walking away

2011 Manhattan Institute Study – NY Impacts

- \$11.4 billion economic output
- 15,000 to 18,000 jobs in Southern Tier and WNY Marcellus only
- 75,000 to 80,000 jobs if expanded to Utica
- State and municipalities to get \$1.4 billion in tax revenues

Public Policy Institute – BCNY July 2011

- 37,572 jobs each year
- 500 wells drilled may result in 62,000 jobs
- \$214 million in taxes in 2015



What About Owego, Tioga County, NY?

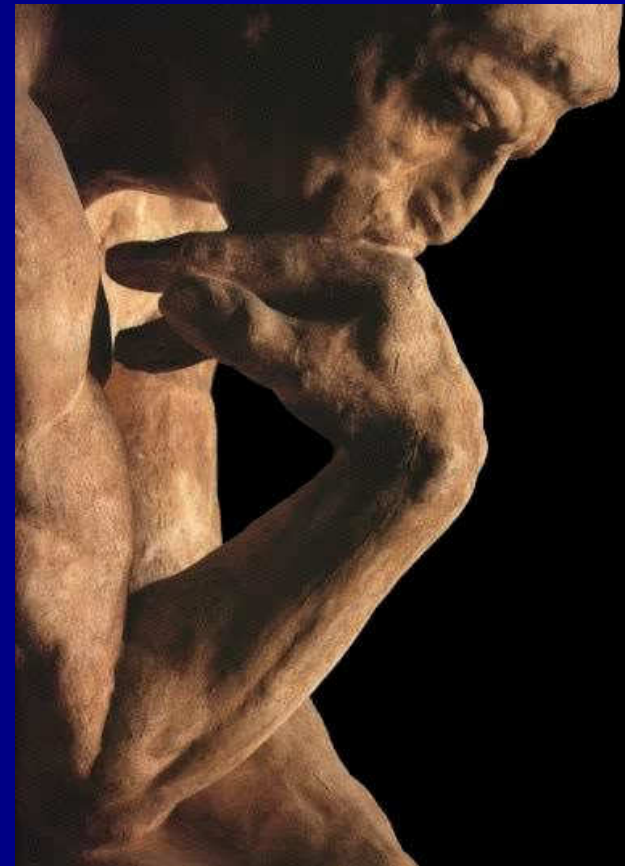
- 3 counties closest to NY in PA
- 101 horizontal wells with over 100 days
- Weighted ave. daily prod. = 3,034 mcf/d
- Assume one well is drilled on private, one public
- Use NY's current ad-valorem tax
- NYSORPS 2011 UOP (\$9.80/mcf)
- Current gas prices (\$4.8708/mcf) 12 month on 4/28/11
- Tax allocation from property tax bill

NY Real Property Taxes Gas Production Projection for Marcellus Drilling (One Well, Town of Owego, Tioga Co.)

Avg Well Prod.	3,034	Mcfd	
Annual Prod Total	1,107,410	Mcf	
NYS UOP Value	\$9.80	Per Mcf	2011 State Value
Uniform %	76%		
	Taxable Value	Tax Rate/m\$	Tax
County	\$8,247,990	10.788	\$88,979.31
Recycle	\$8,247,990	0.451	\$3,719.84
Townwide	\$8,247,990	0.869925	\$7,175.13
Part Town	\$8,247,990	2.200307	\$18,148.11
Apalachin Fire	\$8,247,990	2.154005	\$17,766.21
Owego/Appalachin School Tax	\$8,247,990	25.253141	\$208,287.65
Totals		41.716378	\$344,076.25

Key Points – Plus One Well on Town Property

- \$344,076 1st year local property taxes
- \$674,247 1st year royalty payments
- \$1,018,523 total annual payments to Town of Owego



Cabot Oil & Gas Production – May 2011

- 69 horizontal wells N.E. PA
- Producing 420 Mmcf per day
- At \$5 per mcf, total value is \$2.1 million per day
- Royalties at 15%, landowners receive \$315,000 per day!!!
- Direct payments to landowners

What Other Industry ---

- Can be immediate source of employment
- Not looking for handout from the state
- Pay many and all state and local taxes
- Direct 'production' taxes (real property) to locals instead of state
- Direct payments to landowners

SGEIS Process

- Process should not overwhelm decision-making
- Needs to progress to conclusion
- Investment in NY must be allowed to proceed
- NY needs to capture benefits immediately
- Hope that gas companies come back

Final SGEIS

- An environmental textbook
- A technical, regulatory guidance document for industry
- A public information document
- A legal regulatory framework for development to proceed
- Industry insulation from lawsuits

Where Are We Now?

- Decision on public hearings shortly
- New members of Advisory Panel expected
- Flurry of local laws/zoning
- Comment period to close in October
- Lawsuits on SGEIS expected
- No drilling until 2012

Conclusions

- No environmental compromises
- State has extensive regulatory framework (gas drilling and pipelines)
- No need for local ordinances, regulation (see Appendix 10, dSGEIS)
- Work with industry on road use, information, and other agreements

Marcellus Natural Gas Development

----- May be the greatest economic development opportunity in depressed areas of the state that we will see in our generation ----- BCNY 2009

- No environmental compromises
- Produce clean-burning natural gas
- NY landowners deserve to share in the wealth, particularly in depressed areas

Empire Energy Forum

- Great source of NY public information
- Intended to provide public education on technical issues, such as hydrofracturing

www.empireenergyforum.com

Contact Information

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Twin Tiers Landowners Coalition

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