

CHAPTER V

The Impacts of Shale Gas Drilling on Property Values

Many questions have arisen in the wake of potential high volume hydraulic fracturing shale gas development in New York State regarding its impact on property values. While the NYS DEC dSGEIS reasons that an influx of well site workers may increase some property values initially, it also notes that property values near well sites may experience a negative impact. That negative impact may be exacerbated by the location of wells on or near private property, well head accidents, by transmission pipelines needed to gather the gas, by gas compressor stations located in or near residential neighborhoods, and by the refusal of banks and secondary lenders to give loans for mortgages on properties with surface and subsurface mineral rights.

The impact of hydraulic fracturing on property values raises questions that neither the dSGEIS nor currently available studies definitively answer. In a section of the dSGEIS focusing upon property values,¹ the opening paragraph reads, *“At this level of analysis, it is impossible to predict the actual impacts of developing the Marcellus and Utica shale natural gas reserves on individual property values. However, some predictions can be made with regard to the general impact of mineral rights on property values and the impact of well development on adjacent properties.”*² In its dSGEIS, the Department of Environmental Conservation (DEC) predicts that property owners having joint ownership (with gas companies) of subsurface mineral rights and land will see *“significant increases in property value.”*³ The DEC further assumes that because these property owners will see royalty payments of 12.5 percent, this will automatically transfer to an increase in overall property value. However, property owners without joint mineral rights ownership would not see any increase in property values. At the same time the dSGEIS states that impacts associated with the well construction phase (the construction of pipelines, gas compressor stations, the vibration of trucks servicing well pad sites, and noise and air emissions) *“could reduce the value of properties close to the wells...”*⁴

Within the dSGEIS, the DEC cites a number of studies. While the findings of these studies may be analogous to New York State’s situation, according to the DEC, they should be used only as an indication of the impacts on property values. The authors of one such study, conducted by BBC Research Consulting in 2001, examined the impact of coal bed methane wells on property values in LaPlata County, Colorado, between 1989 and 2000. The authors found that a property with one well on it saw a value reduction of some 22%, but that having a well within 550 feet of a property increased the value. Locating a well between 551 feet and 2,600 feet from a property had a negative impact

¹ Draft Supplemental Generic Impact Statement, New York State DEC, September, 2011, section 6.8.3.4, p. 250.

² dSGEIS, p. 250

³ dSGEIS, 6.8.3.4, p. 251

⁴ dSGEIS, 6.8.3.4, p. 251

on value. Any increase in property values just 550 feet away from a well was due to the fact that setback conditions would prevent further well drilling close to the drilled well.⁵

Another study by Boxall, Chan and McMillan (2005) concluded that having gas facilities within about 2.5 miles of rural residential properties actually reduced values by 4 to 8% with the possibility of doubling the negative impact with an increase in production activities.⁶ Integra Realty Resources conducted a property value impact study in and around Flower Mound, Texas in 2009. Integra found that within Flower Mound itself, there was a negative impact on house values immediately next to a well site (-2% to -7%). And on properties valued at \$250,000 or more, the negative impact ranged between -3% and -14%.⁷ However, the study also found that the negative impact diminished rapidly with increasing distance from the well.⁸ The study concluded that there was no significant impact on property values. Further investigation beyond the dSGEIS, however, paints a more complex picture. The director of Integra Realty Resources, Dan Wright, reported to the Flower Mound Town Council, in 2011, that homes near active drilling sites were on the market longer than homes much further away from the noise of operations.⁹ Integra's study also made use of homeowner interviews. According to Wright, of the people living near gas drilling sites, the ones most likely to want to move away are those property owners who do not receive royalty checks. He further stated, *"Intuitively, most people will say there is some kind of impact (living near a drilling site). We do know that within the marketplace there (is) a certain amount of people who don't want to be around that."*¹⁰ As a result of Integra's study, Flower Mound's Town Council took steps to amend its original gas drilling ordinances to require review for future gas drilling permits by and public hearings before the Planning and Zoning Commission and the Town Council. If a zoning amendment is approved, then a Specific Use Permit is required with further review and public hearings. The Council also adopted ordinances designed to provide public safety and other protections to the community. Setbacks from gas wells were increased from 500 feet to 1,500 feet from residences with mineral interests and from 1,000 to 1,500 feet for residences without mineral rights. The setback for schools, churches, parks, hospitals and water wells increased from 1,000 to 1,500 feet and from 500 feet to 750 feet from property lines, roadways and rights of way.¹¹

The dSGEIS concludes that proximity of a gas well may in fact reduce property value. At the same time, it concludes that proposed natural gas development in New York State will have an overall regional effect of increasing property values. This assumption is not based upon any studies cited in the dSGEIS, but rather on the expected in-migration of construction and operations workers and an increased economic activity in the area

⁵ dSGEIS, 6.8.3.4, p. 252

⁶ dSGEIS, 6.8.3.4, p. 252

⁷ dSGEIS, 6.8.3.4, p. 253

⁸ dSGEIS, 6.8.3.4, p. 252

⁹ Roark, Chris, "Council Hears Presentation on Drilling-Property Value Impact," http://www.planostar.com/articles/2011/03/26/flower_mound_leader/news/413.txt, March 25, 2011.

¹⁰ Roark, Chris, "Council Hears Presentation..."

¹¹ Township of Flower Mound, Texas, www.flowermound.com/env_resources/env_resources_ong.php

because of that influx.¹² The dSGEIS is silent on the impact on an area when those workers leave.

In addition to information included in the dSGEIS, a number of other sources discuss the impact of gas well development on property value. In a New York Times article, reporter Ian Urbina points out that there are two views on this issue. While drilling officials claim that income from lease bonuses and gas royalties will enhance property values and provide borrowers money needed to pay off mortgages, New York environmental regulators report that while property values may increase regionally with the influx of drilling jobs, research has shown that properties closest to the drilling are more likely to decrease in value.¹³ Jannette Barth, a respected economist, explains that while supporters of shale gas drilling assume that property values will increase due to drilling, they may in fact decrease. She cites a situation in Wise County, Texas, where real estate appraisers have discounted property values by as much as seventy five percent when a gas well sits on the land.¹⁴ Reporting on the same situation in a 2010 Dallas News article, reporter Peggy Henkel Wolfe cited specific examples of discounted property values in Wise County. One property dropped in value on the tax rolls from \$257,330 to \$75,240, which was directly due, according to the Wise County Appraisal District Board chairman, to gas drilling on the property.¹⁵ The report further cited realtors who said that homes near gas well operations but not on land with gas leases were less likely to be reduced in value.

In a Pennsylvania Altoona Mirror news article, reporter Wendy Zook examined claims by property owners with gas leases on their land that water and air pollution, as well as noise pollution and heavy truck traffic at the project site, have all contributed to a dramatic reduction in property value. Zook explains that while nearby Altoona property assessed values have increased recently, this is largely due to the fact that the county has just reassessed for the first time in fifty years. It is not largely due to the gas industry's presence, as some in the gas industry have claimed. In the same article, one family notes that before gas drilling began on their 105 acre farm, realtors had said their house could sell for \$650,000.00. After drilling, the owner said that his property was worthless.¹⁶

The construction of gas pipelines and compressor stations can also impact property values. The 2011 dSGEIS briefly cites two studies, one by Fruits (2005) and another by Palmer (2008), both of which found no measurable impact on property values resulting from the installation of gas pipelines.¹⁷ This writer found it impossible to access Eric Fruit's study without a login profile. The study was conducted for the gas pipeline industry in the western part of the United States. The more accessible Palmer study was conducted at the request of Palomar Gas Transmission, LLC, in Oregon. The stated

¹² dSGEIS, 6.8.3.4, p 253

¹³ Urbina, Ian, "Rush to Drill for Natural Gas Creates Conflicts with Mortgages," New York Times, October 19, 2011.

¹⁴ Barth, Jannette, "Hydrofracking Offers Short-Term Boom, Long-Term Bust," <http://www.newyork.construction.com>, March 7, 2011.

¹⁵ Henkel-Wolfe, Peggy, "Drilling Can Dig Into Land Value," Dallas News, September 18, 2010.

¹⁶ Zook, Wendy, "Clearville Residents Blame Reduced Property Values on Natural Gas Project, Altoona Mirror.com, October 10, 2012.

¹⁷ dSGEIS, 6.8.3.4, pp.252-253

purpose of this study was to, “*measure impact of pipeline easements on property values.*” This information would be “*used to assist Palomar Gas Transmission LLC in forecasting possible compensation for property owners along their proposed pipeline.*”¹⁸ The report attempted to isolate the effect of natural gas pipelines from other variables affecting property value. The study was not an appraisal of properties studied, but rather a market analysis for the pipeline company. The study concluded that having a gas pipeline on a property showed no measurable long-term impact on property value when compared to other property types.¹⁹ It is worth noting that the only two studies cited in the dSGEIS, regarding pipelines, were commissioned by gas companies whose interest is in their bottom line.

One report not included in the dSGEIS (Diskin, et. al.) had the express purpose of researching whether closeness to a natural gas pipeline had an effect on real estate sale prices for the particular geographic region studied, cities in Arizona. The study did not find a systematic relationship between proximity to the pipeline and the sale price or value of homes in the study. However, the authors emphasized in their conclusion that while generalizing their findings to all geographic areas might seem logical, it definitely was not advisable since each area would provide its own unique data base.²⁰

Contrary to findings in studies designed for gas pipeline companies, recent court decisions and property owner complaints are an indication that further study is needed to determine possible negative impacts on property values. For example, in 2011, a San Antonio, Texas appellate court upheld a jury verdict against LaSalle Pipeline LP that awarded \$600,000 in damages to the Donnell family. The Donnells claimed a property value loss to their 8,000 acre ranch after LaSalle had built a four mile stretch of gas pipeline over fourteen acres of their property.²¹ While LaSalle had said it should pay for the pipeline right-of-way, the company also claimed that the pipeline did not negatively impact the overall property value. The gas company has since appealed the jury decision to the Texas Supreme Court, which has not heard the case as of this writing.

A final consideration regarding natural gas pipelines is the fact that many areas within the Marcellus Shale play, including the Town of Rensselaerville, have not had to deal with natural gas production and so do not have the required gathering pipelines in place. As a result, a number of environmental issues will arise during the sighting, construction, operation and maintenance of the lines. The greatest impacts occur during the actual construction, “*when vegetation is removed, a trench is dug, the pipe is laid, and the trench backfilled.*”²²

¹⁸ Palmer, Donald R, “Updated Market Analysis, The Impact of Natural Gas Pipelines on Property Values,” February 21, 2008, letter of transmittal.

¹⁹ Palmer, letter of transmittal.

²⁰ Diskin, Barry A., et al., “The Effect of Natural Gas Pipelines on Residential Value,” Right of Way, January/February, 2011, p. 27.

²¹ “Texas Pipeline Ruling Challenged by Industry,” <http://www.energyglobal.com>, March 28, 2012.

²² “Development of the Natural Gas Resources in the Marcellus Shale: New York, Pennsylvania, Virginia, West Virginia, Ohio, Tennessee, and Maryland,” National Park Service, U.S. Department of the Interior, November, 2009.

Along with construction of gas transmission pipelines is the need for a number of compressor stations to move gas from the wells to gathering lines and eventually to the larger transmission lines. There are important concerns with emissions and noise from these stations.²³ By definition, a “compressor station” is a “*facility, which helps the transportation process of natural gas from one location to another.*”²⁴ Natural gas, while being transported through a gas pipeline, needs constant pressurization at certain distance intervals (from 40 up to 100 miles), thus a need for these stations.²⁵ These facilities generally use about two acres of land and are fueled by electricity, diesel fuel, or natural gas. Sometimes they are built near homes, which in turn causes property owners to worry about a drop in property value. Recently, property owners in Lamar County, Texas, won a lawsuit against National Pipeline Company for excessive noise causing damage to health and property.²⁶ A jury awarded nine residents a total of \$1,242,500 in damages because of noise and odor pollution from a nearby compressor station. And, as recently as March, 2012, an explosion linked to ten Marcellus Shale wells in Susquehanna County, Pennsylvania, destroyed a large part of five compressor stations but caused no injuries to workers or to nearby homes. However, the environmental impact on air quality was in question. The Pennsylvania DEP is investigating as of this writing.²⁷

Often these compressor stations are built a distance away from neighborhoods and are less of a nuisance. However, when they are constructed near residential neighborhoods, common sense says that potential buyers will pay less for those homes than they are willing to pay for homes of equal value located a distance away from a station.

Another consideration in the impact on house and property values is the potential for wellhead accidents such as the one that occurred in Bradford, PA, in April of 2011. A major blowout, which spewed thousands of gallons of fracking fluid over farmland and into a nearby creek, caused a major pollution problem. Cattle on the farm where the explosion occurred could no longer drink from the creek, and nearby residential water wells were contaminated.²⁸ Eventually, the drilling company, Chesapeake, was given a fine by the PA Dept. of Environmental Protection, of \$1,000,000 for contaminating water of 16 households. The company was also fined for contaminating the creek with sediment and \$190,000 to repair damage to repair the water treatment facility hit by fracking sediment.²⁹ The Bradford County Commissioners published a statement, “*Issue after issue has arisen in Bradford County in relation to the development of natural gas in Bradford County. Most recently, there was a major incident involving a well blowout in*

²³ “Development of the Natural Gas Resources,” National Park Service.

²⁴ www.naturalgas.org/naturalgas/transport.asp

²⁵ “Compressor Station,” [Wikipedia](http://Wikipedia.org), www.wikipedia.org.

²⁶ Hankins, Bill. “County residents win 11-year-old lawsuit”. *The Paris News* (Paris, Texas: A Southern Newspapers publication.), January 25, 2009.

²⁷ Hopey, Don, “Compressor Station Explosion Shuts Down at Least 10 Wells,” *Pittsburgh Post Gazette*, March 30, 2012.

²⁸ Hamill, Jim and Buynovsky, Sarh, “Gas Drilling Emergency in Bradford County,” WNEP-TV, April 20, 2011.

²⁹ Phillips, Susan, “Bradford County Blowout Costs Chesapeake more than \$250k,” *State Impact*, <http://stateimpact.npr.org/pennsylvania/2012/02/09>.

Leroy Township...Well water contamination in Bradford County is a real and serious issue that is affecting residents' quality of life, livelihoods, families, and property values. ...temporary water storage tanks now lay claim to people's front yards as a stark reminder of the extreme negative impact that natural gas development is having on our local communities."³⁰

It is obvious that the New York State Department of Environmental Conservation through its 2011 dSGEIS, cannot assure that property values will increase as a result of the development of natural gas. At best, the few studies cited in the dSGEIS arrive at mixed conclusions about the impact on property values. And by DEC's own admission, the studies made in other sections of the USA cannot accurately predict what will happen to property values should gas development through high volume hydraulic fracturing be allowed in New York State. However, the numerous accidents associated with high volume hydraulic fracturing indicate, at the very least, that many unanswered questions remain about the serious and potentially negative impact that gas development can have on New York property values.

One more influence on property values in New York State is the inability of potential home buyers to obtain mortgage loans on properties where the current owner has given surface/sub-surface mineral rights to a gas company. The ability to obtain a mortgage loan even when a current owner's property is only adjacent to a property with mineral rights is in question. New York bankers are asking questions about what will happen if they give mortgages for land that stores toxic wastewater from gas drilling. Lenders are also concerned because gas leases allow drillers to violate rules in landowners' mortgages. And, since banks sell about ninety percent of their mortgages to institutions like Fannie Mae and Freddie Mac, it is possible that some of the mortgages do not comply with regulations and could therefore be in default.³¹ Major lenders as well as the mortgage secondary market have been reluctant to secure loans under these conditions. Because of the regulations from FHA and other lenders, and because appraisers cannot meet those regulations in appraising properties, many major lenders are finding mortgages to homes on properties with gas leases or properties bordering those with leases too risky. Some of the lenders refusing such loans include: Wells Fargo, The Thompkins Trust Company, First Place Bank, FHA, Provident Funding, GMAC, and Fidelity. According to a New York Times article, banks resell more than 90 percent of new residential mortgages to Fannie Mae, Freddie Mac, and Ginnie Mae.³²

Key to this whole issue is the setback requirements from oil and gas well sites by major lenders and the secondary mortgage market. Currently, New York State's setbacks do not meet those requirements. (See the chart following.)

³⁰ Smith, Mark William, Chairman, Bradford County Commissioners, letter to Governor Tom Corbett, April 20, 2011.

³¹ Urbina, Ian, "Rush to Drill for Natural Gas Creates Conflicts With Mortgages, The New York Times, October 19, 2011.

³² Urbina, "Rush to Drill..."

SETBACK REQUIREMENTS

FHA

Freddie Mac/Fannie Mae

NY dSGEIS

<p>No EXISTING residence closer than 300’ from the active/planned drill site. Applies to SITE BOUNDARY, not actual well.</p> <p>In single-family subdivision, no residence may be built within 75’ of an operating well without mitigation measures.</p> <p>Abandoned well- with mitigation/safety letter, house can be 10’ from well, and with no letter, house must be at least 300’ from well</p>	<p>Require gas lines and any other mining related activities be at least 200’ from residential properties.</p>	<p>Silent on sub surface gas lines</p> <p>Actual drilled gas well must be five hundred feet from a private water well.</p> <p>2011 SGEIS is silent on distance of a residential structure from well or well site, so the effective regulation is in the 1992 GEIS – a drilled well must be at least 100’ from a residence.</p>
--	--	--

The graphic shows the basic setback requirements for FHA loans, and Freddie Mac and Fannie Mae loans. It also shows the setback requirements found in the 2011 dSGEIS. Although it requires a five hundred foot setback from a private water well, it is silent on distance from a residential structure. One must therefore refer to the 1992 GEIS to find that the required distance is one hundred feet, less than the requirements for FHA, Freddie Mac and Fannie Mae, which are three hundred feet and two hundred feet respectively.

Elizabeth Radow special counsel for the law firm of Cuddy and Feder in White Plains, NY, has outlined the special problems for landowners seeking mortgage or equity loans in New York State. In a New York Bar Association Journal article, Radow explains collateral flaws in secondary home underwriting for residential properties.

She notes that all mortgage loans require a property appraisal, title insurance covering the lender, and homeowner's insurance. Appraisals have to be based upon similar properties in the immediate area in order to compute market value and the maximum amount of a loan. Unfortunately, reliable appraisals for properties with gas leases are extremely difficult and expensive because of the extensive title searches required. Underwriters need to know the risks involved before assigning a loan.³³

Radow further explains that forced compulsory integration as well as gas leases signed after loans have been made are red flags with lenders and may jeopardize a mortgage loan. This is due to the fact that in NYS, the DEC does not force a determination of compulsory integration in land records.³⁴ Lenders also require homeowner's insurance from borrowers. However, no insurance covers the type of property damage caused by gas drilling such as air pollution, well water contamination, earth movement and other risky commercial activity on the property.³⁵ Residential mortgages prohibit the borrowers from allowing the presence, use, disposal, storage or release of any hazardous substances on or under or over the mortgaged property. Hazardous substances include flammable petroleum products and radioactive materials, and others. Signing a gas lease without notifying one's lender will likely lead to a mortgage default.

Greg May, VP of residential mortgage lending at Thompkins Trust Company released a document entitled "*Gas and Oil Leases Impact on Residential Lending*" in March of 2011. In his document, he more specifically explains the problems for mortgage lending institutions and for private citizens seeking loans on residences.

One of Mays' major points is the lack of any cost effective means to find whether a residential property has a gas lease. The problem is that many gas leases have only been recorded in the form of a memorandum, which makes it virtually impossible for the appraiser to review comparable leases to establish property value. "*Tax rolls, assessment rolls, multiple listing data bases and other forms of determining property sales have not and currently do not track the existence or terms of gas/oil leases.*"³⁶ Therefore, because licensed appraisers cannot use reliable information about the impact of a gas or oil lease on a property, their appraisal cannot in turn meet secondary market requirements.

Another of May's points involves surface and subsurface gas/oil rights within 200 or 300 feet of a residential structure. Under Freddie Mac's rules, if those rights fall within 200 feet, the residence is not eligible for conventional financing in the secondary mortgage market. By the same token, if those rights fall within 300 feet, the residence is not acceptable for an FHA loan.³⁷

³³ Radow, Elizabeth, "Owner Liability and Viability of Mortgages," pp.19-21

³⁴ Radow, p.20.

³⁵ Ibid.

³⁶ May, Greg, V.P. Residential Mortgage Lending, "Gas and Oil Leases as They Relate to Residential Lending," Greg May, VP, Tompkins Trust Company, March 24, 2011.

³⁷ Ibid.

Finally, gas/oil leases on properties are generally unacceptable mortgage or equity loans from Wells Fargo, First Place Bank, Provident Funding, GMAC, FNBC, Fidelity, First Liberty, or Bank of America.³⁸

One can better understand, based upon May's explanation, why mortgages would be difficult to obtain from lenders in New York State when residences are located on or close to gas well sites. The situation is unacceptable to FHA, Freddie Mac, and other major lenders. As a result, one might well conclude that the value of properties with mineral rights as well as the value of properties adjacent to those with mineral rights would definitely suffer.

It is not a question of whether or not property values in New York State, and more specifically in the Town of Rensselaerville would be negatively affected by the introduction of a heavy industry like high volume hydraulic fracturing. Rather it is a question of how great the impact would be. Some studies and the many reports from other parts of the United States where high volume hydraulic fracturing is already being used would lead to several important conclusions. One, the 2011 dSGEIS does not adequately address the impact of shale gas drilling on property values, either in its explanations or in the studies it cites. Two, as evidenced in numerous reports, residents believe that property values on or near gas well, pipeline and compressor sites have been negatively impacted. As a result, townships like Flower Mound, Texas have passed stiff regulations regarding shale gas drilling, and the State Appellate Court in Texas ruled in favor of a plaintiff whose property value was reduced because of gas pipelines built across it. Three, thorough studies of possible negative impacts of shale drilling on property values are needed. These studies must be commissioned by federal or state governments and not gas companies to assure impartial findings. At this point in time, the potential for negative impacts on property values in New York State and in the Town of Rensselaerville due to shale gas drilling is too great a risk.

³⁸ Ibid.