

**Chenango, Otsego, Delaware, Madison Regional Natural Gas Collaborative**  
**January 20, 2011 @ 2:00 p.m.**  
**Chenango County Office Building- Board of Supervisors Chambers**

**Attendees:**

James Bays	Peter Darby	Scott Finkbohm	Jerry Kreiner	John Phelan	Roy Straka
Terry Bliss	Robert DeClue	Peter Flanagan	Dennis Lutes	Richard Schlag	Cliff Tamsett
Roger Bradstreet	Melissa DeCordova	Ken Fogarty	Caroline Martin	Stan Scobie	Jennifer Tavares
Shane Butler	Rena Doing	Steve Harris	Marie Lusins-McLachlan	Bonnie Seegmiller	Kristina Turechek
Christine Brunner	Jeff Dorsey	Ross Iannello	Robert Milano	George Seneck	Bradd Vickers
Earl Callahan	Susan Dorsey	Steve Keyes	Steve Palmatier	Steven Sinniger	William Wallon
John Carson	Tom Evans	Rennie Korver	Drew Piashyk	Ken Smith	William Huston (filming)

**Introductions:**

Mr. Steven Palmatier, Moderator and Chenango County Natural Gas Consultant welcomed everyone. Individuals from five Central New York Counties: Broome, Chenango, Delaware, Madison and Otsego were represented.

**Presentation:**

Guest speaker: James Austin, Public Service Commission, Environmental Division, Pipeline Regulations, was introduced by Mr. Palmatier.

Mr. Austin provided an overview of NYS Public Service Law Article 7, "Fuel Gas and Electric Transmission Facilities Siting". A copy of the power point presentation and an audio of the meeting are posted on the website

[www.co.chenango.ny.us/Planning/Planning\\_NatGas-four-county-resources.htm](http://www.co.chenango.ny.us/Planning/Planning_NatGas-four-county-resources.htm)

**Comments/questions following the presentation:**

- Pipelines connected to Interstate lines are under the jurisdiction of the Federal Energy Regulatory Commission (FERC)
- How are pipelines <125psi, located in environmentally sensitive areas, regulated if they are not regulated by PSC? NYSDEC may be involved when designated wetlands are affected, or storm water regulations are required when construction affects 1+acres of land. Supervisor Bays expressed concern about the Cole Rd. area in the Town of Smyrna which is basically a bog. Mr. Austin stated local regulations may come into play. Mr. Keyes, Norse Energy, commented NYSDEC was involved in this section of the pipeline, with NYS Division of Waters oversight.
- Mr. Vickers, NYS Farm Bureau is proposing legislation for oversight of all pipelines, as well as "Dig Safely NY" NY. Mr. Austin commented "ordering clauses": require "Dig Safely NY" and submit as built drawings.
- Supervisor Flanagan questioned "Dig Safely NY" compliance, he expressed concern 1 of 3 road crossings not listed at Dig Safely NY. Can a gathering line be 20+ miles long, <125 psi and not be monitored by PSC. Mr. Austin stated local compliance, if regulations exist.
- Supervisor Flanagan questioned if Mr. Austin was aware of local ordinances in other areas of the state. Mr. Austin stated he is not aware of any local ordinances at this time.
- Mr. Palmatier asked about pipeline security issues and Homeland Security regulations. Mr. Austin had discussed this issue with Homeland Security staff and they have no authority to overrule local Emergency Management guidelines. Homeland Security has no issue with "gathering lines".
- Supervisor Flanagan commented Real Estate Law requires full disclosure which would include gathering line location. Mr. Austin commented he is not an attorney but believes any right of way easements must be filed with the County Clerk.
- Supervisor Flanagan questioned if the "ordering clause" requiring "Dig Safely NY" is followed up by PSC. Mr. Austin stated he would check.
- Supervisor Iannello asked if there is any road crossing oversight. Mr. Austin stated PSC exempts gas lines entirely under roads.
- Supervisor Iannello asked if "Zoning" must be in place or would local laws be acceptable. PSC may waive laws that are restrictive.
- Considerable discussion relating to lack of oversight for the <125 psi pipelines. Mr. Austin commented there are considerable pipeline safety requirements that must be followed. Mr. Keyes commented a safety inspector must be contacted within 48 hours for inspections; pipeline fusers must be certified; in addition to numerous other safety guidelines.
- Mr. Palmatier commented it appears that Norse Energy is following "best practices" for pipelines <125 psi. It would be beneficial to contact PSC to invite a representative from the Safety Division to address this committee on the pipeline Safety guidelines.
- Supervisor Phelan commented on the proposed pipeline in the Town of Coventry. Mr. Keyes stated NYSDEC, SWPPS regulations are followed.

- Mr. DeClue questioned if pressure threshold of 125 psi is design or operating pressure. Mr. Austin stated operating pressure is the requirement of the law. If operating >125psi penalty or recertified.
- Mr. Callahan questioned how pipelines are fused. Mr. Palmatier described the process: pipes are clamped together, squared, heated and pushed together for fusing. Mr. Keyes added the heating plate must reach a specified temperature and sealing time which is determined by the size of the pipe. The fusers must be certified.
- Ms. Tavares asked about monitoring. Mr. Keyes explained the well tenders must check the system and charts for pressure and potential problems. Ms. Tavares asked if any outside company monitors the system. Mr. Keyes stated it is basically the company.
- Mr. Butler asked about pipeline durability when comparing steel and polyethylene plastic pipes. Mr. Austin stated steel for the high pressure lines. Polyethylene advantages: no corrosion, flexible, available in varying lengths for fusing.
- Comment about the recent leak reported in the Millennium pipeline. Mr. Austin stated the PSC Safety Division has oversight of the Millennium gas line for FERC.
- Mr. Austin commented **Part 255.9F PSC regulations** addresses design criteria, distance, etc. Supervisor Flanagan asked if there are setback guidelines for gathering lines. Mr. Austin did not know, often this is an agreement between the company and landowner.
- Supervisor Bays asked about the prevailing notion about jobs at the PSC. Mr. Austin commented NYS is considering additional state employment cuts but PSC still working well, staff is very diligent.
- Supervisor Phelan questioned if a pipeline is designed for >125 psi but operated <125 psi, what prevents increasing the line pressure. Mr. Austin stated NYS holds companies to high standards. NYS toughest place to do business as safety issues are very stringent. Education very important.
- Supervisor Schlag questioned Mr. Keyes of Norse Energy as to what agreement they have with Chenango County Emergency Management regarding pipeline maps; will Town have access to maps. Mr. Keyes stated Norse is willing to provide maps with a confidentially agreement.
- Mr. Keyes was asked if gas reacts with pipeline over extended period. ASTM specs for the poly pipe are available. The poly pipe easier to work with, installed with markers, magnetic tape above the line.
- Supervisor Schlag asked how many miles of pipeline are currently in the County. Mr. Keyes did not have an exact number but approximately 50 +/-miles. He will check for a more accurate number.

Mr. Austin was thanked for an informative presentation.

#### **Where We Stand:**

**Albany Legislative Actions:** Several bills have been presented to the Legislators. Assemblyman Englebright presented bill A00375 which would affect removal of timber, gravel and state parks.

**SGEIS status:** Possible update at the February meeting.

#### **Education and Training:**

- Education and training was the original goal for the Regional Committee meetings. Ms. Tavares, Mr. Ives and Mr. Palmatier visited DCMO BOCES and SUNY Morrisville to discuss natural gas standards for potential training programs specifically the Welding programs.
- OSHA training classes have been proposed; Heavy equipment and rough terrain fork lift training especially in forest areas.
- SUNY Morrisville appears to be embracing training opportunities. A meeting will be held at SUNY Morrisville to survey the students about potential interest in the natural gas industry.
- Ms. Tavares discussed the Natural Gas Service Directory prepared by Commerce Chenango. Ms. Tavares asked for feedback on the directory regarding additional businesses, etc. that should be added. The proposal is to update the directory every 6 months. Businesses advertising in the directory were charged a fee; member businesses are listed in bold lettering and non-members are listed as regular print.

The meeting was adjourned at 4:00 p.m.

The next meeting is **February 24, 2011, 2:00 p.m.**

The speaker will be Russell Urban-Mead a hydrologist from The Chazen Companies.

# Chenango, Otsego, Delaware, Madison Regional Natural Gas Collaborative

February 24, 2011 @ 2:00 p.m.

Chenango County Office Building- Board of Supervisors Chambers

## Attendees:

Ross Iannello	Karen Nowak	Todd Dreyer	Kristina Turechek	Ken Smith	John Salka
Shane Butler	Bradd Vickers	Steve Perrin	Rick Schlag	Dick Downey	Melissa deCordova
Rena Doing	Scott Ives	Steve Keyes	Jim Bays	Steven Sinniger	Tom Evans
Steve Palmatier	Katherine Dawson	Kenneth Fogarty	Pete Flanagan	Erin Heaton	Clif Tamssett
Jackie Mineo	Drew Piaschyk	Isaiah Sutton	Marie Lusins-McLachlan	Donna Jones	

Ms. Jones welcomed everyone to the Regional Natural Gas meeting at 2:10 p.m.

Mr. Palmatier read a copy of the "Regional Natural Gas Meeting Guidelines" prepared to maintain order at the meetings. After discussion Mr. Palmatier asked for introductions around the room.

### Old Business:

Mr. Palmatier addressed questions remaining from the January 20, 2011 Regional meeting.

Mr. Keyes, Norse Energy provided information on the following:

- There is approximately 40 miles of pipeline in Chenango County.
- The question relating to installation of pipeline in 2009 adjacent to a swampy area along Cole Rd., Town of Smyrna. The location and design for the pipeline was prepared by an Environmental engineer following NYSDEC guidelines. The line was placed south of a pond and north of the swamp to limit any environmental disturbance in the area.

### Presentation:

Mr. Palmatier introduced the guest speaker: Russell Urban-Mead, Sr. Hydrologist with "The Chazen Companies" speaking on "Groundwater Resources & High Volume Hydrofracturing". The power point presentation may be seen on Chenango County website at: (<http://www.co.chenango.ny.us/planning/Chazen-Companies-February-hydrogeology-Nat-Gas-Collaborative-mtg.pdf>) link Natural Gas; Four County Regional meeting.

Mr. Urban-Mead stated he works with Towns and Counties on various projects out of "The Chazen Companies" Poughkeepsie, NY office. He focuses on the science of hydrogeologic issues of water no pro/con on natural gas exploration. Copies of some of his reports are hosted for review at <http://www.russellurban-mead.com/work.htm>

### Comments in conjunction with the power point presentation:

- Basic overview of groundwater activity: water migrates towards outfalls, which you can think of as "exits", which are usually streams or river. Groundwater is always moving. The movement is influenced by porosity & gradient (pressure). Porosity (fractured in bedrock or grain openings in sediments) hinders or facilitates flow. Gradients are critical because, for example, if there is no gradient, there is no groundwater flow even if porosity is high. Water follows the easiest paths, flowing toward streams through shallow porous sediments, and migrating through deeper paths if shallow paths are already saturated or if lower porosity rock is found in deeper horizons.
- Precipitation falling in recharge areas may take months or years to reach a discharge area, such as a riparian wetland, stream or river. A wetland is an area where the water table and the land surface are at or very near the same elevation.
- Fresh groundwater typically cycles through the upper 200-700 feet of the earth's geology. Most groundwater in the region flows primarily through the top 200 feet, according to some available USGS study data.
- Chenango County averages 37 to 40 inches per year of precipitation. As a rough rule: 50% of this evaporates and is transpired upward by plants and re-feeds the clouds; 25% enters streams flows overland as run-off, and; 25% infiltrates and flows as "underground runoff" to streams. Infiltration rates (recharge rates) differ somewhat on the basis of soils at the land surface (average infiltration rates are often in the range of 4 inches/year for clay topsoil, 10 inches/year for silty soil, and up to 18 inches/year of infiltration where sand and gravel are present at the ground surface. Using an average of these numbers, every acre of land recharges approximately ¼ million gallons of water per average year.
- At rural properties, 80-90% of water pumped by the site domestic well ends up flowing to the individual wastewater systems (septic system) and is therefore returned/discharging back into the environment. Basically, the water is borrowed and returned as partially treated wastewater, relying on waste decomposition and dilution of the wastewater in the aquifer to bring the water quality back to a potable standard.
- Ground water boundaries: Groundwater flows from higher elevation areas to lower elevation discharge areas. That means that groundwater regions are defined by "divides" very similar to surface water/watershed divides. Locations for the ground water divides are mostly pretty much in the same locations. When addressing groundwater budget issues, Hydrogeologists consider the locations of watershed divides when estimating groundwater recharge areas.

- Deeper fractures are very compressed, so often they do not convey much water or gas. Regardless of the porosity of fractures, remember that groundwater flow must also have a pressure gradient if it is to flow. Groundwater flow is driven as much by gradients as porosity. Example: a regional sand and gravel aquifer may be uniformly porous, but the plume from a gasoline spill only goes where the gradient (flow) takes the groundwater through this aquifer. The point is: fractures can exist, but contamination will only follow that fracture if there is a persistent gradient.
- Water quality considerations: Water quality varies naturally in aquifers. Water is a universal solvent which picks up the geologic characteristics of the formation it occupies. It can pick up dissolved iron, manganese, and a host of other compounds. Water quality varies country to country; formation by formation, and even season by season, depending on how long groundwater flows through a formation, which horizon it follows and other factors. The point is: natural groundwater can contain a host of dissolved compounds, sometimes in concentrations exceeding health department potable standards.
- Traditional industrial/commercial contaminant sources are well known, and often relate to past industry practices, spills, manufacturing, gas stations, dry cleaners, etc. Change in regulations since the 1970s have significantly reduced the prevalence of groundwater contamination from these sources. Non-point contaminants, like road salt deicers, septic system constituents, and nutrients are now becoming more notable in water samples since the historic “industrial” contaminant concentrations are decreasing.
- Chazen has been involved in many Regional Ground Water monitoring programs. Chazen has also recommended density limits for septic systems, to preserve groundwater quality. During dry periods, sampling indicates that wells can contain more ecoli bacteria if they are situated near septic fields.
- Small parcels (<2½ to 3 acres) often do not have adequate soils and on-site recharge to both supply a domestic well and adequately dilute nitrate and other contaminants discharged to the environment from a site septic system. Smaller parcels adjacent to roadways may also experience increased sodium and chloride levels from road salts.
- Chazen has helped develop an aquifer protection zoning ordinance, with two versions available – this model may be useful for inter-municipal agreements. The reports are available on the website link above and the model ordinance and septic density study is available here: (<http://www.co.dutchess.ny.us/CountyGov/Departments/Planning/planonit05062010.pdf>)
- Mr. Urban-Mead also provided a brief update on USEPA’s proposed hydrofracturing study plan. First phase study results and intended to be released in 2012. The study intends to focus on potential threats to drinking water during all phases of natural gas hydrofracturing activity, such as: water acquisition; chemical mixing; hydraulic fracturing, and; flow back/produced water management & treatment.
- The study will focus on analysis of existing case-study locations and will also closely follow several new projects. The regional scope of the study ensures that the results will be reflective of many different geologic settings. At least two of the study sites included in the USEPA study plan are in New York State.
- Mr. Urban-Mead offered some thoughts on Monitoring appropriate for natural gas hydrofracturing sites:
  - ⇒ Risk management practices should be used here. It is important to measure carefully for feedback, collect best possible data, and then adjust. Things will not necessarily always go perfectly, but a monitoring program should be designed to identify problems so they can be addressed quickly.
  - ⇒ Active discussion and flexibility in adjusting monitoring is very important
  - ⇒ The further away the monitoring is from where a spill occurs, the harder it is to distinguish from other contaminant sources and the longer the spill has had time to expand. Some key parameters are worth monitoring regionally – perhaps TDS (Total Dissolved Solids) and Barium, etc.
  - ⇒ Consider using a neighborhood watch concept. If the public is trained to be alert to Legal/Good behavior and problematic behavior the public can be calmer about routine activity and more accurately identify problematic activity.
  - ⇒ Surface water impacts dilute quickly so although problems to surface water may appear grave, they often end up with impacts below standard very quickly and are hard to track to a source because they are already dilute and far from the spill site.
  - ⇒ Groundwater contamination impacts can be serious but are almost always likely to be very local, concentrated around the drill pad area or a particular point of release.
  - ⇒ Our American culture has accepted patterns of spill, monitoring, remediation and regulation of operations such as gas stations. This is the price of our national energy dependence. Approaches to natural gas development should be approached similarly.
  - ⇒ If we take as a given that increased natural gas exploration is coming, it is important to incorporate appropriate measures in monitoring and preparation of robust response and mitigation plans.

**Comments/questions following the presentation:**

- **Discussion relating to Darcy Law:** Darcy Law is a mathematical projection relating to porosity and gradient. The basic thought process relating to the prospect of “frack water” entering an aquifer. The “frack water” must travel upward a considerable distance to enter the fresh water aquifer. The movement would require displacement of water along the travel path and would require a persisting gradient to reach the aquifer. The “frack water” would be working against the status quo gradient, likely to be nearly static and would return to the pre-fracking gradient shortly after the activity ended. The vertical

distance and the brevity of an available gradient lessen the likelihood of fracking fluid reaching the aquifer horizon. As a matter of perspective, there is a high risk every day of contaminants entering an aquifer from the surface since gradients at ground level are downward into the aquifer, except at discharge locations, and multiple and sometimes persisting contaminant sources exist.

- **Unused water wells.** Wells no longer in use can become pathways for contaminant movement from the ground surface down into the aquifer if the well construction fails or if people use the well to discard fluids or debris. The concrete and other materials used to grout wells in place are generally quite robust. Nonetheless, it is good practice to grout up unused wells and remove the upper steel casing so no conduit remains.
- **If an area has considerable abandoned domestic water wells** can they be more of a risk to an aquifer? Any well can become a conduit for vertical movement from land surface into an aquifer. An unsupervised well is perhaps a higher risk than an actively used well and ideally would be treated as discussed in the prior comment.
- **Injection wells,** can chemicals in wells enhance migration of the wastewater to aquifers? EPA and NYSDEC regulations are very strict for permitting injection wells. However injection wells are not risk free.
- **The bacteria causing hydrogen sulfide** due to cuttings moving from various horizons. The drill cuttings must be managed as they come up from the well. It is my understanding that fracking protocols stipulate that the water-bearing aquifer horizon be fully cased and therefore isolated from intentional contact with any fluids associated with drilling at greater depths and/or hydrofracturing.
- **Mechanics of stray methane gas:** shallow methane gas can be naturally occurring in an aquifer but it is treatable. Mobilizing methane gas would not be any greater during natural gas well drilling process than domestic water well drilling.
- **Artesian wells** are almost always in fresh water horizons, not up-wellings of water from formations thousands of feet below grade.

In summary what keeps an aquifer separated and protected from water below is gradient and pressure.

#### **Education and Training:**

- March 9<sup>th</sup> at SUNY Morrisville at 6:00 p.m. there will be a “Potential Careers in Natural Gas” workshop.
- Commerce Chenango has completed and distributed the “Chenango County Natural Gas Service Directory” to Norse Energy Inc. and area Contractors. If anyone has any additions for future updates of the directory contact Commerce Chenango or Mr. Palmatier. It is important to keep the directory updated. The directory is now on the Commerce Chenango website: [www.chenangony.org](http://www.chenangony.org)
- Mr. Keyes, Norse Energy, commented the Directory is nicely formatted.
- Ms. Lusins-McLachlan commented she has been working with Otsego County Planning Department to develop a directory, with support for Economic Development.

The meeting was adjourned at 4:15 p.m.

Notes prepared and recorded by: Rena M. Doing

**Chenango, Otsego, Delaware, Madison Regional Natural Gas Collaborative**  
**May 26, 2011 @ 2:00 p.m.**  
**Chenango County Office Building- Board of Supervisors Chambers**

Ms. Jones welcomed everyone to the Regional Natural Gas meeting at 2:08 p.m.

Mr. Palmatier asked for introductions around the room from the approximate 35 attendees prior to introducing the guest speaker.

**Presentation:**

Mr. Palmatier introduced the guest speaker: **Kevin Speicher - New York State Public Service Commission Gas Safety Division.**

Mr. Speicher provided a power point presentation on pipeline regulations. He added the NYSPSC does not deal with gas/oil wells, pipeline only.

**Summary of Presentation and Comments in conjunction with the power point presentation:**

- Basis of Public Service Law is Article 4, Section 66(2) adopted September 21, 1951
- Federal Energy Regulatory Commission (FERC) regulates interstate pipelines; NYSPSC regulates intrastate pipelines. NYSPSC regulations must meet or exceed FERC regulations. Interstate pipeline inspections are contracted to state agencies generally a 5-year agreement. NYSPSC has a \$ 2.6 million contract with FERC to conduct pipeline inspections which expires December 2011.
- NYSPSC Law Part 255 focuses on Gas Safety.
- NYSPSC Safety Division has a staff of 30, with 27 natural gas field staff assigned to different regions in the state: NYC, Albany, Syracuse and Buffalo regions.
- Responsible for record and field audits:
  - Ensure code is followed
  - Construction inspections
  - Operation & Maintenance procedures to meet code.
  - Investigate Incidents and Complaints
- Enforcement of “Dig Safely NY” membership program
- Inspection of areas specified as High Consequence Areas (HCA) for example schools, hospitals, high density population, are dependent on industry standards.
- Gathering Lines (Slide 19 & 20 power point) rule generally apply in sparsely populated areas
  - Actively farmed land in last 5 years bury lines 40” depth, normal depth 24”
  - Cover line with conductive locating wire and tape
  - Patrol lines for damage etc., 2years
  - Leakage surveys 5 years.
  - Article VII of PSC regulations lines 125 or >psi within 150 ft. of building must be designed, constructed, tested and operated as a steel transmission line.
  - Lines <125psi refer to section 255.9 Article VII

**Questions/Comments:**

- Supervisor Bays asked about the Town of Smyrna pipelines. Mr. Speicher stated his staff is in the area frequently. Any problems/issues with the pipeline must be reported to NYSPSC by the company within 48 hours. PSC has staff members living close to this area to address issue as soon as possible. The pipeline companies are aware of regulations and no specific training by PSC, situation dependant.
- Mr. DeClue questioned if 150ft. from building requirement includes barns? Mr. Speicher stated any building can hold gas and there is a possibility individuals may be inside a barn.
- Inspection time table? High pressure lines yearly, medium every 2 years and Low pressure 3 years. Regardless of design pressure lines are inspected during construction through routine unscheduled visits. Low pressure plastic lines inspected every 5 years, steel every 3 years. Number of visits may be governed by history of any problems. Inspection for leaks is performed by a flame ionization unit. NYSPSC does monitoring for inspectors- “field audits” for accuracy.
- Mr. Hudiberg questioned mapping. Mr. Speicher stated PSC does not require release of mapping information. County Emergency management has copies of maps which are updated annually.
- Supervisor Flanagan commented there have been instances when gathering lines <125psi were not required to notify “Dig Safely NY”. Mr. Speicher confirmed NYSPSC encourages all companies to join “Dig Safely NY”. If not an Article VII situation, exempt from the law.
- Location of pipelines determined by company after negotiation with landowner. Mr. Speicher commented the Environmental section provides input. Road crossing markers, for high pressure transmission /gathering lines are required. In some cases delivery lines.

- Question relating to “disclosure” when property is sold. If a right of way or easement this should be disclosed as part of the property search. If a property owner considers constructing a new building it is important to communicate location and distancing from an existing pipeline.
- Supervisor Flanagan commented if NYSPSC does not address specifics and oversight of the low pressure “gathering lines” maybe every town should consider enacting a law to address gathering lines.
- Mr. Keyes, Norse Energy, Inc. commented on the required NYSPSC Safety Requirements during installation of the natural gas gathering lines. Appendix 7G requires a Notice of Intent (NOI) describing the facility design, buildings, valving, and fusing of plastic lines based on manufacturer’s design. Welders must be compliant with training and manufacturer’s requirements. NYSPSC inspects installation of steel pipes near buildings. Maximum allowable pressure determined by pipeline quality. Notice of Intent (NOI) to NYSPSC is required within 48 hours of any required inspection, problem, etc. regardless of size of the pipeline.
- Supervisor Bays commented on the burial depth of the pipeline ranging from 2-4 ft. NYSPSC is advocating for additional safety requirements. Many companies mark pipeline as line of sight, no notification requirements required for bedrock areas, generally 12" depth. Concern that depth changes overtime through natural movement. Highway standards are more stringent requiring 48" depth.
- Discussion continued relating to Right of Way along property lines: 60ft. State Right of Way; 2" diameter pipeline 30 ft.; and 24" pipeline 70ft.
- Maintenance along pipeline and right of way corridors is through cutting grass/shrub no herbicides. Maintaining vegetation holds soil and can serve as an indicator if there is leakage vegetation will die in the specific area.
- NYSPSC has a joint relationship with the Environmental Division of NYSDEC and the Army Corp of Engineers on oversight of small diameter pipelines in wetland and streams.

**Where We Stand:**

- Legislative Action: There have been numerous bills introduced to the NYS Legislation relating to natural gas issues, some appear to be valid and some are not.
- SGEIS status: The revised draft of the Supplemental GEIS may possibly be approved sometime in 2012 after review, comments and training.

**Education and Training:**

- Mr. Haugli, DCMO BOCES stated there have been no major changes to the current programs at this time. The Welding and Conservation/Equipment programs are working with the natural gas industry to coordinate training programs for rough terrain forklifts and the CDL license program. These programs are on-going and are also available through Adult education. The Welding Technology program is currently housed at the Masonville BOCES campus. There is discussion to move this program to the Norwich BOCES campus.
- The next 4-County Regional meeting is scheduled for June 16<sup>th</sup> at 1:00 p.m. to avoid conflicts. Mr. Hudiburg expressed concern about the invitation of Mr. Thomas Shepstone, Consultant for “Energy in Depth”, to speak at the next meeting. Mr. Palmatier stated that Mr. Shepstone has a strong background in Planning and he felt he could provide beneficial information for consideration by the local municipalities.

The meeting was adjourned at 4:00 p.m.

## **Chenango, Otsego, Delaware, Madison Regional Natural Gas Collaborative**

**June 16, 2011 @ 2:00 p.m.**

**Chenango County Office Building- Board of Supervisors Chambers**

Mr. Palmatier welcomed approximately 85 County officials, agency representatives and residents to the Four County Regional Natural Gas meeting at 2:10 p.m. Mr. Palmatier provided a summary of the background on how the Chenango, Otsego, Delaware and Madison Regional Natural Gas committee was established. The intent of the meeting is not to be a forum for debating hydraulic fracturing but an opportunity to discuss education and employment opportunities relating to natural gas exploration in Central NY.

### **Presentations:**

Mr. Palmatier introduced the guest speaker: Gregory H. Sovas, Consultant, and President, XRM, LLC. Mr. Sovas has over 40 yrs. experience in NY Environmental issues retiring his position as Director of the Division of Mineral Resources at the NYSDEC. He is the primary author of the 1981 amendments to the NYS Oil, Gas and Solution Mining Law and 1991 Mined Land Reclamation Law. Mr. Sovas provided a power point presentation (attached) and discussion on natural gas in NYS.

### **Summary of Presentation and Comments in conjunction with Mr. Sovas' power point presentation:**

Mr. Sovas provided historic and public information:

- NYS has had Oil/Gas exploration since the 1860's starting in western NYS. New technology has renewed interest in the east. Unfortunately communication with the Oil/Gas exploration companies has been an issue.
- Natural gas has been found to be environmentally beneficial and has become an international issue.
- All the producing Oil/Gas states have developed laws based on Oklahoma & Texas regulations which are based on the laws of capture.
- Spacing regulations came about due the density of wells during the Texas explorations in 1901. Spacing is a key element of establishing a regulation. Prior to 1981 NYS Oil/Gas only required notice of intention.
- Casing/Cementing guidelines have been in place since 1980's to protect groundwater. Two strings of pipes an additional string of pipe in aquifers. There has been no contamination problem in over 30 years. PA developed NYS standards in 2010
- The Legislative Intent of the 1981 regulations was to supersede all local regulations, including zoning. Part of the problem in the 1970's was the limited NYSDEC staff qualified to oversee sites. Local municipalities had a similar problem resulting in NYS Law to supersede all local regulations, except roads and taxation
- NYS is the logical entity to establish uniform regulations associated with setbacks which do not respect municipal boundaries, spacing units, etc. In addition to interstate regulations.
- Why zoning does not apply. Primarily drilling is a construction site. It is a minimal land disturbance with the right to recover minerals. Should there be a lawsuit based on zoning regulations it is questionable if it would survive a challenge. It may result in landowners or gas companies initiating lawsuits because of infringement of their investments. The landowners deserve a fair shake and they should be able to retrieve mineral rights. The oil/gas companies have kept farms as farms and in some cases have helped them to survive.
- Why is Mining Law Different than Oil/Gas Law? Mining is a consumptive land, industrial land use with quarries there for many, many years compared to oil/gas fields over a period of 3 +/- years.
- Spacing units sizing to drain a pool of gas efficiently. PA has no spacing or fair pooling regulations allowing companies to come up and drain the property.
- NYS passed legislation in 2005, addressing surface spacing for vertical/horizontal drilling. Less surface acreage is affected while allowing drilling in various formations and directions from the same well. On a 640 acre spacing unit all wells must be drilled within 3 years. In PA units are up to 1200 acres due to advances in technology.
- Comparisons of 40 acre unit to 640 acre unit pad.
- Manhattan Institute study and IOGA projections: If a Marcellus well is drilled in NYS, production based on PA figures as well as addressing NYS taxation results in \$344,000 annually per well to County/Local entities. No severance tax. Cabot Oil & Gas press release reported royalties of \$ 315,000/ per day to the landowner.
- What other industry pays direct production taxes to local government?
- There will be no environmental compromises in NYS. The SGEIS chapters 4, 5, Appendix 6 &10 appear to address the majority of concerns and contain information needed. There is a very extensive regulatory system in place in NYS with no need for local regulations based on Appendix 10. At the local level road use agreements are important.
- Marcellus shale exploration may be the greatest economic development for NYS. NYS landowners deserve to receive a share. Question asked by many municipalities is where will the recent loss of funding come from now that the 2% tax-cap has passed?
- Mr. Sovas stated he has three goals: 1) Defend NYSDEC 2) Keep companies here in NYS 3) Landowners make some money, by sharing in the wealth.



**Mr. Palmatier introduced Environmental Analyst, Bob Williams of Barnes/Williams Environmental Services:**

Mr. Williams has worked on numerous utility and energy related projects, pipelines and numerous hydroelectric projects in various states.

**Summary of Presentation and Comments in conjunction with Mr. Williams' power point presentation:**

- Chenango County is ahead of all NYS counties with active drilling and pipeline connections.
- Pipelines are a big disturbance when not located on one property.
- Pipelines are regulated by the Federal Energy Regulatory Commission (FERC) and NYS Public Service Commission (NYSPSC). Initially there is no way to know for sure what agency will regulate a pipeline. Generally interstate pipelines are regulated by FERC, the exception being if a pipeline is designated as a "gathering line", even if it crosses a state line. FERC is prohibited by Congress to regulate a gathering system. This is the case with the Windsor gathering pipeline system, which is regulated by NYSPSC and PA Public Utility Commission. The line is <10 miles long allowing for NYS relaxed PSC guidelines.
- Local rule involvement in the Windsor Pipeline: Establishment of a Steering Committee as an LLC to negotiate with the pipeline company. Concern eminent domain could become an issue. NYSPSC not comfortable with eminent domain authority wants local agreement. Everyone along the pipeline route was given opportunity for input.
- Right of Way (ROW) and Easement established. Landowners had two options. ROW was 30 ft. permanent with 60ft. construction. Prepared a Road Use Agreement which is fair to the company and local. NYSPSC agreed road use agreement was fair.
- Compressor station (Dunbar Compressor) for entering into Millennium pipeline. Requirements: Do not want to see, hear or smell anything relating to the compressor station. Advantage is NYS terrain with hills and forests.
- NYSPSC has no noise ordinance, important to develop a noise ordinance. NYSPSC will look at local laws, must be workable. Noise ordinance established at 4 dbl above background, 40dbL at property line. Important to have cohesive group, agree on incorporating most modern technology.
- Local regulations should include removal of abandoned compressor stations, clean site back to original state.
- Environmental perspective relating to pipelines, you must always address environment, native species, etc.

**Mr. Palmatier introduced Steven Messmer and Robert Harder presenting for Delta Engineering:**

Mr. Robert Harder is speaking on Royalty Verification Services and Mr. Messmer is speaking on the Delta Road Preservation program.

Mr. Harder provided the following:

- Informational slide from NYSDOH and EPA water testing guidelines. Important to establish a chain of custody when testing well water.
- Royalty Verification program incorporates natural gas metering accuracy. Gas meters are electronic or may have a chart recorder. Orifice plate in well measures differential pressures, line/flowing pressure on each side of the plate for accurate readings for royalty. This plate is in the wellhead requiring a regular inspection for fittings, sharpness, flatness, etc. Recommend two fittings: Simplex fitting ports on either side allows for removing plate for inspection but must shut down well and by-pass; preferred a Dual Chamber unit that allows for inspection without shut down. Critical to inspect and calibrate plates within the first 1-2 years. Orifice plate is the "heart" of the measurements for insuring accurate royalty payments.

Mr. Messmer discussed Road Use Agreements:

- Road maintenance in rural areas is generally the largest portion of the local budget. Developing a Road Use Agreement that is in the best interest of the municipalities. Delta has developed agreements for (41) towns in NYS.
- A slide of a pyramid indicating risk of damage to roads: NYSDOT highways have the lowest risk. They are built to withstand all types of traffic with little impact; County roads ~20% risk of damage; Local roads have the highest risk ~90% potential for damage after months of activity. Many companies have been willing to work with the municipalities. However the primary concern is the uncertainty if the next company will be as willing to repair/upgrade the local roads.
- Delta Engineering has developed a Road Use Agreement by and for towns based on the guidelines proposed by the municipality Highway Superintendent in lieu of using the industry agreements. A Pavement Management study was developed for road composition earth/gravel is higher maintenance, potential total loss on paved roads. Important to build the type of road the local municipality wants to maintain using national design standards "do not reinvent the wheel". By building roads to incorporate basic engineering, effective costs, and the longest life developed guidelines so the municipality or the industry is not penalized.
- Key concept of the Delta concept of developing a Road Use Agreement it doesn't focus on overweight vehicle use. Overweight laws have resulted in many problems, such as overburdening local traffic. Roads are not damaged just by overweight but actual repetition of vehicles. Regulating by overweight alone you error by over regulating local and under

regulating high volume short term projects. The Delta system is based on national standards, based on sound science and research.

- The Delta Plan is not just a Road Use Agreement. Too often there is a misconception that a generic or handshake road use agreement will be valid but without adequate documentation of road condition before use and after it may not stand up in court. Delta Plan pre/post examination of road conditions to determine potential damage based on real science to be equitable to all parties.
- Four Step Process in developing a plan: Haul route determined for safety aspects (village, school, etc.) of traffic not just shortest route; Geometric and Structural issues: bridges, culverts, road width, curves, earth gravel surface soils under pavement, etc.; Determine interim use and update if necessary before use; ESAL concept relating to traffic use and weights for acceptable life use of the road. This ESAL system determines difference between local uses, by heavy vehicles, such as milk/log truck traffic.
- AASHTO provides structural number issue prior to road use then reassess for post use number to determine the objective of how much of the road is changed. This science is used to determine any fair cost of damage if the science and calculations indicate damage to the road.
- Three step process: Baseline survey of road condition inventory (engineering parameters, etc.); Template of Road Use Agreement and template local law. System can work with or without a local law. The key is a plan designed for and by the town. Do not take the industry road use agreement. After a town adopts agreement the town is set up to implement these agreements. The Delta Plan is completely industry neutral it is all about traffic not the type of industry. Many types of activities can trigger traffic, dam construction, windmills, pipelines, general construction etc.

### **Question/Answer Session:**

- Pipeline issue and building setbacks. Suggestion to NYSPSC for Windsor pipeline require setback as required for high pressure pipelines. NYSPSC determines 150 ft. setback. After established no way to enforce or prevent anyone from building closer then 150ft.
- Any field test on meters. Standards are available similar ASTM industry standards for oil/gas. Is there a provision to ensure orifice is properly sealed? There has been discussion about checking meter to avoid a by-pass issue. Important to include verbiage in leases to ensure calibration of meters, dual locking system, etc. Important to remember operator is selling the gas and they want to optimize their sale by insuring metering is accurate.
- What is basic cost for Road Use Agreement? Flat rate of \$8500 engineering cost includes legal component. The system will be in play for implementing at any time in the future.
- Road Use Agreement cost includes the survey, tech manual, template of local law, attorney oversight to insure legally it will be upheld if any legal challenges. Enforcement by the municipality is available through road posting, or other aspects of vehicle transportation law etc.
- How do you factor in the milk tankers, log haulers, bluestone haulers which are often heavier then water hauling? On a typical scenario primarily based on repetition not just the weight.
- Timeline to develop a Road Use Agreement? Depends on submittals from highway department could range on average of six (6) months.
- Compressor stations require a bond or zoning ordinance?
- Pipeline right of way may vary in width. Important to insure construction right of way is adequate. Review NYSPSC Article 7 this describes right of way guidelines.
- How did NYSDEC determine 100ft. setback. Discussion regarding FHA secondary mortgage market concern about purchasing mortgages due to setback. Generally lending facilities are not familiar with oil/gas industry this is a learning curve. A representative Elexco researched this mortgage issue and has found no problem. If a problem with state law this should be changed at state level in lieu of numerous local laws across the state. Important to keep regulations consistent across the state.

With no further discussion and a thank you to the guest speakers the meeting was adjourned at 4:00 p.m.