

TOWN OF MARCELLUS
TOWN BOARD MEETING MINUTES

December 10, 2012

A regular meeting of the Town Board of the Town of Marcellus, County of Onondaga, State of New York was held on Monday, December 10, 2012, at 7:00 P.M. in the Town Hall, 24 East Main Street, Marcellus, New York. Those present were:

Daniel J. Ross, Supervisor
Thomas C. Lathrop, Councilor
Donald G. Sherman, Councilor
Kevin F. O'Hara, Councilor
Peter Hakes, Councilor

Also present: Sandy Taylor, Town Clerk; Susan Dennis, Deputy Town Clerk ; Jim Gascon, Council; Tracie Barnes, Accountant; Don MacLachlan, Highway Superintendent; Phil Coccia, Recreation Director; William Burnett, Vincent Murphy, Carolyn Behm, Daniel Behm, Jerry Wickett, Peg Kronen, Nancy Bunn, John J. Scanlon, Jr., Lynn Cahill-Hoy, Anita Williams.

Supervisor Ross opened the meeting at 7 P.M. with the Pledge of Allegiance to the Flag.

PUBLIC HEARING: Local Law No 7 for the year 2012. “ A Local law Amending The Town of Marcellus Zoning Law As Enacted by Local Law No 6-2009, Titled “Town of Marcellus Zoning Law of 2009”.

Supervisor Ross opened the Public Hearing for the proposed Local law No 7 for the Year 2012. “A Local Law Amending The Town of Marcellus Zoning law As Enacted By Local law No 6-2009, Titled “Town of Marcellus Zoning Law of 2009”, by reading The legal notice that was published in the November 29, 2012 edition of the Marcellus Observer.

Supervisor Ross asked if anyone wished to speak against the Local Law. There were no comments in opposition of the Law.

Supervisor Ross then asked if anyone would like to speak in favor of the law to please State his/her name for the record.

Carolyn Behm- lives in the Town of Onondaga, property is close to Town of Marcellus. Would like to see the ban put in place, just as Town of Onondaga recently did.

Vince Murphy – Glover Road, agrees with Ms. Behm. We need a permanent solution. Supervisor Ross explained that a Local Law would be permanent. The Town of Marcellus has a moratorium, but that will expire in January.

Judy Lee Bing - Seneca Turnpike in the Town of Onondaga. Very proud that the Town Board has taken the time to gather this information and is also putting a law into place, Just as Town of Onondaga has recently done. Wants Marcellus to stay looking like "It's a Wonderful Life".

Peg Kronan – Thanks the Board for all the efforts. She hears that people are trying to get out of leases.

Jerry Wickett – Limeledge Road. Agrees..we need the Local Law. Doesn't want To put the residents of Marcellus at risk.

Lynn Cahill – Hoy – Lathrop Drive. Appreciates the Boards consideration in this matter. We all need to write to the Governor and DEC that we need a statewide ban. We have between December 12 and January 11, 2013 to write to the Governor and DEC.

Supervisor Ross thanked everyone for their comments and put the Public Hearing in recess at 7:11.

SEQRA FOR LOCAL LAW – 7-2012 Counsel Gascon led the Board through the long environmental assessment form for the proposed Local Law.

TOWN OF MARCELLUS

TOWN BOARD SEQRA RESOLUTION AND NEGATIVE DECLARATION

December 10, 2012

TOWN OF MARCELLUS

Councilor Lathrop moved and Councilor O'Hara seconded the following Resolution:

WHEREAS, the Town Board of the Town of Marcellus, at its regular meeting held on November 8, 2012, introduced the proposed Town of Marcellus Local Law 7-2012, in accordance with the New York State Municipal Home Rule Law; and

WHEREAS, the proposed law consists of the adoption of proposed Town of Marcellus Local Law 7-2012, a local law Amending the Town of Marcellus Zoning Law of 2009 by Adding Certain New Definitions, Confirming and Clarifying That Any Uses Not Expressly or Specifically Permitted Are Prohibited, Articulating Certain Prohibited Uses, Deleting Certain Provisions, and Establishing a Severability Clause; and

WHEREAS, proposed Local Law 7-2012 will have the effect of prohibiting, in each and every zone within the Town: the exploration for or extraction of natural gas and/or petroleum; the storage treatment and disposal of natural gas and/or petroleum exploration and production materials; the storage, treatment, and disposal of natural gas and/or petroleum exploration and production wastes; and natural gas and/or petroleum support activities; and

WHEREAS, Volume 6 N.Y.C.R.R., Section 617 of the Regulations relating to Article 8 of the New York Environmental Conservation Law of New York (SEQRA), requires that as early as possible after submission of a proposed action, an involved agency shall make a determination whether a given action is subject to the aforementioned law; and

WHEREAS, on November 8, 2012 the Town of Marcellus Town Board (the declared itself lead agency for purposes of SEQRA; and

WHEREAS, the Board hereby confirms that it shall act as lead agency for p SEQRA; and

WHEREAS, the Lead Agency has completed and submitted a Long Form Envi Assessment Form and the same has been carefully reviewed and thoroughly conside Board; and

WHEREAS, the Board has considered and discussed fully the potential envi impacts of the proposed action; and

NOW, THEREFORE, BE IT RESOLVED, that the Town of Marcellus To hereby determines the proposed action will not have a significant adverse effe environment and this resolution hereby adopts the Negative Declaration attached purposes of Article 8 of the Environmental Conservation Law, Volume 6 of the N.Y.C 617 et seq. for the reasons contained herein; and it is further

RESOLVED, that the Town's legal counsel, distribute and publish the attached Declaration pursuant to the requirements of 6 N.Y.C.R.R., part 617, as necessary.

The question of the adoption of the foregoing resolution was duly put to a vote roll call, the vote was as follows:

Peter Hakes	Councilman	Voted	Yes
Donald G. Sherman	Councilman	Voted	Yes
Thomas C. Lathrop	Councilman	Voted	Yes
Kevin O'Hara	Councilman	Voted	Yes
Daniel J. Ross	Supervisor	Voted	Yes

The foregoing resolution was thereupon declared duly adopted.

DATED: December 10, 2012

617.21
 Appendix F
 State Environmental Quality Review
NEGATIVE DECLARATION
 Notice of Determination of Non-Significance

Project Number: Prohibited use Legislation - Zoning

Date: 12/10/12

This notice is issued pursuant to Part 617 of the implementing regulations pertaining to Article 8 (State Environmental Quality Review Act) of the Environmental Conservation Law.

The Town of Marcellus Town Board, as lead agency, has determined that the proposed action described below will not have a significant effect on the environment and a Draft Environmental Impact Statement will not be prepared.

Name of Action: Local Law 7-2012 – Amending the Town of Marcellus Zoning Law As Enacted by Local Law 6-2009 to Add Certain Zoning Definitions, Delete Certain Provisions and Articulating Prohibited Uses

SEQR Status: Type I
 Unlisted

Conditioned Negative Declaration: Yes
 No

Description of Action: Amendment to the Town of Marcellus Zoning Law of 2009 by Adding Certain New Definitions, Confirming and Clarifying That Any Uses Not Expressly or Specifically Permitted Are Prohibited, Articulating Certain Prohibited Uses, Deleting Certain Provisions, and Establishing a Severability Clause.

Throughout Town of Marcellus, County of Onondaga, State of New York

Location: (Include street address and the name of the municipality/county. A location map of appropriate scale is also recommended.)

Reasons Supporting This Determination:

(See 617.6(g) for requirements of this determination; see 617.6(h) for Conditioned Negative Declaration)

I. State and Federal Regulation and Oversight; concerns include but are not limited to:

a. The Environmental Protection Agency expressed serious reservations about the scope, accuracy and viability of the 2009 Draft SGEIS, the New York State document that will guide regulation of natural gas extraction. Environmental Protection Agency, Letter to NYSDEC Division of Mineral Resources, December 30, 2009; available at: www.toxicstargeting.com/sites/default/files/Marcellus_dSGEIS_Comment_Letter_plus_Enclosure.pdf.

b. The United States House of Representatives Committee on Energy and Commerce released a report in April 2011 titled *Chemicals Used in Hydraulic Fracturing* which states, "Yet questions about the safety of hydraulic fracturing persist, which are compounded by the secrecy surrounding the chemicals used in hydraulic fracturing fluids." United States House of Representatives, Committee on Energy and Commerce, Minority Staff. *Chemicals Used in Hydraulic Fracturing*, (2011); available at <http://democrats.energycommerce.house.gov/sites/default/files/documents/Hydraulic%20Fracturing%20Report%204.18.11.pdf>

c. A report authored by University of Oneonta Professor Ronald Bishop and others in November 2009 for former Congressman Michael Arcuri, states that "proceeding with any new projects to extract methane from unconventional reservoirs by current practices in New York State is highly likely to degrade air, surface water and ground water quality, to harm humans, and to negatively impact aquatic and forest ecosystems. Mitigation measures can partially reduce, but not eliminate, the anticipated harm." Bishop, Ronald E. *Chemical and Biological Risk Assessment for Natural Gas Extraction in New York*, (2011); available at <http://flimarcellusconference.files.wordpress.com/2011/07/risk-assessment-natural-gas-extraction-1.pdf>.

d. A summary and analyses of the U.S. data and record of experiences with shale gas and oil extraction included in a recent study by the European Union indicates that hydraulic fracturing and horizontal drilling technologies have had a significant impact on health and the environment. *Impacts of Shale Gas and Shale Oil Extraction on the Environment and on Human Health*, European Parliament, 2011; available at <http://www.europarl.europa.eu/committees/en/studiesdownload.html?languageDocument=EN&file=44388>.

e. Studies or analyses of both the long-term and cumulative impacts of high volume slick water hydraulic fracturing (HVSWHF) operations on a community's water, air, health and economy have not been completed, and no analysis of these types of impacts are included by the DEC in the Preliminary Revised SGEIS (July 2011). New York State Department of Environmental Conservation. *Revised Draft, Supplemental Generic Environmental Impact Statement on the Oil, Gas, Mining Regulatory Program*, (2011); available at <http://www.dec.ny.gov/data/dmn/rdsgeisfull0911.pdf>

f. The drilling industry is exempt from federal environmental statutes that otherwise require disclosure of information related to chemical use; the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA), the Clean Air Act and the Clean Water Act. Moreover, hydraulic fracturing is not covered under certain provisions of the Safe Drinking Water Act. Bushkin-Bedient, Sheila, M.D., M.P.H., Update on Hydrofracking. *American Academy of Pediatrics*; citing Colborn T, Kwiatkowski C, Shultz K, Bachran M, (2011) *Natural Gas Operations from a Public Health Perspective*, Human and Ecological Risk Assessment: *An International Journal*, 17:5, 1039101056.

g. In a letter to Commissioner Alexander B. Grannis of the New York State Department of Environmental Conservation (the "DEC"), the Onondaga County Council on Environmental Health set forth a list of unresolved issues of great concern regarding the DEC's draft Supplemental Generic Environmental Impact Statement governing potential natural gas drilling activities in the Marcellus Shale. These concerns include the treatment and disposal of flowback water, the long term protection of private and public water supplies, and the use of water resources in the hydrofracking process. Onondaga County Health Department, Division of Environmental Health; *Letter to Alexander B. Grannis, Commissioner of New York State Department of Environmental Conservation* (December 23, 2009).

II. General concerns related to drilling for natural gas on the health, safety and welfare of the Town of Marcellus and its residents include but are not limited to:

a. Drilling for natural gas by its very nature has the potential to produce a combination of negative impacts upon the environment and people living in or in proximity to drilling operations. Many of these are unavoidable, due to the large land occupation and density of well drilling required and the relatively high risk of accidents. Such negative community impacts may include, without limitation, traffic, noise, vibrations, fumes, damage to roadways, degradation of water quality, degradation of air quality, decreased availability of affordable housing, increased demand on emergency services, increased cost to residents, damage to and loss of agricultural lands and soils, damage to and loss of open space, natural areas, and scenic views, decreased recreational opportunities, and damage to tourism.

b. Natural gas exploration or extraction or the storage, transfer, treatment, application to land or roadways, or disposal of natural gas exploration and production wastes occurring within the Town is likely to endanger the health, safety and welfare of Town residents through the deposit of toxins and radioactive substances into the air, soil, water, environment, and the bodies of residents within the Town. Irreparable harm to the Town's drinking water supplies may occur. Methane contamination of groundwater in severe cases can result in safety hazards such as explosions in residences and businesses using well water. Town and residents' property could be damaged by the corrosive nature of these waters.

c. Air, soil and water contamination may occur during the different stages of natural gas exploration and extraction operations and the storage, transfer, treatment or disposal of natural gas exploration and production wastes, and such contamination could have adverse impacts on plant, human

and animal health and environmental quality. Such impacts, many already documented in other areas, will directly affect the quality of life and livelihoods of residents of the Town of Marcellus.

III. Risks to water include but are not limited to:

a. The Town of Marcellus is committed to protecting and preserving the quality and viability of its water resources including its wetlands, streams, watersheds, and lakes which include the “Disappearing Lake”, Nine Mile Creek, the Nine Mile Creek Watershed, and Otisco Lake. *See* Town of Marcellus Comprehensive Plan of 2001.

b. Residents of the Town of Marcellus depend on the purity of lake or groundwater as their primary drinking water source either through private wells or public water systems. *See* Town of Marcellus Comprehensive Plan of 2001.

c. Surface spills and underground migration of liquid wastes that originate from the exploration, drilling and extraction of natural gas (whether onsite or during the transportation of these products to treatment and/or disposal facilities) can occur, and such products may come into contact with and contaminate and pollute groundwater and/or soil. Experience from states in which hydraulic fracturing is active indicates that contamination of drinking water and streams is not uncommon whether it be due to poorly constructed well casings, cracked well casings, surface spills, leaking containment ponds, migration of contamination through abandoned wells, or for other undocumented or unexplained reasons. Michaels et al. 2010. *Fractured Communities: Case Studies of the Environmental Impacts of Industrial Gas Drilling*; available at <http://www.riverkeeper.org/wp-content/uploads/2010/09/Fractured-Communities-FINAL-September-2010.pdf>.

d. Water contamination has been documented in a peer reviewed paper in the Proceedings of the National Academy of Science by Dr. Stephen Osborn and others from Duke University titled *Methane Contamination of Drinking Water Accompanying Gas-Well Drilling and Hydraulic Fracturing* which looked at 68 wells across Pennsylvania. The research showed levels of methane with the chemical profile of shale-gas in groundwater were 17 times higher on average in water wells located within a kilometer of active hydraulic fracturing than water wells where there was no hydraulic fracturing, and were very often above the federal safety standard for explosions. Osborn, Stephen G., et al. *Methane Contamination of Drinking Water Accompanying Gas-Well Drilling and Hydraulic Fracturing*, Proceedings of the National Academy of Sciences, (2011); available at <http://www.pnas.org/content/early/2011/05/02/1100682108.full.pdf+html>.

e. State University of New York at Buffalo researchers led by Tracy Bank reported that Marcellus Shale is naturally enriched in uranium and has enhanced solubility and mobility due to water-rock interactions over millions of years and hence produced water secondary to the fracking process contains unacceptably high levels of radioactivity. Bank, Tracy. *Trace Metal Chemistry and Mobility in the Marcellus Shale*, (2010); available at <http://www.epa.gov/hfstudy/tracemetalgeochemistryandmobilityinthemarcellusformation1.pdf>.

f. An analysis on wastewater from the gas and oil industry treated at a brine treatment facility in Pennsylvania by Dr. Conrad Volz and others from the Center for Healthy Environments and

Communities at the University of Pittsburgh shows levels of barium, strontium, bromide, benzene, 2-butoxyethanol and other contaminants in the effluent entering a local creek well in excess of EPA standards for protection of human health and aquatic life. The report cites concern for those who drink the water from municipal authorities downstream as well as those who recreate in the area and are exposed to chemicals emanating from the creek either through skin absorption, inhalation of volatile compounds, or ingestion of fish taken from the creek. Volz, Conrad D., et al. Contaminant Characterization of Effluent from Pennsylvania Brine Treatment Inc., Josephine Facility: *Implications for Disposal of Oil and Gas Flowback Fluids from Brine Treatment Plants*, EPA Hydraulic Fracturing Study Technical Workshop 3, Fate and Transport, March 28-29, 2011; available at <http://www.epa.gov/hfstudy/contaminantcharacterizationofeffluent.pdf>.

g. Experience in Pennsylvania where hydraulic fracturing is allowed shows water and flow back fluid disposal techniques and regulations at the State level are inadequate or non-existent and that standard waste water treatment techniques are not effective when treating these toxic fluids. See generally, Urbina, Ian, February 27, March 2, and March 4, 2011 articles and supporting documentation; available at; http://www.nytimes.com/interactive/us/DRILLING_DOWN_SERIES.html; Letter from U.S. EPA Region 3 Regional Director Shawn Garvin to PA Department of Environmental Protection, March 7, 2011.

IV. Risks to air quality include but are not limited to:

a. Significant venting and leakage of natural gas to the atmosphere occurs during shale gas development. Howarth, Robert W., Renee Santoro, Anthony Ingraffea, *Methane and the Greenhouse-Gas Footprint of Natural Gas from Shale Formations*, A Letter, Climatic Change (2011) 106:679-690; available at <http://www.springerlink.com/content/e384226wr4160653/fulltext.pdf>.

b. A variety of air pollutants are included in the gaseous releases associated with several point sources in the gas drilling process and with leakage from storage and transmission infrastructures. Pollutants include benzene, formaldehyde, and other aromatic hydrocarbons and hydrogen sulfide, carbon disulfide and other sulfur gases in addition to radon. Development of the Barnett Shale gas in Texas has led to high levels of air pollution, including benzene concentrations of up to 15,000 ppb in air. These concentrations are high enough to cause toxicity. Wolf Eagle Environmental, *Town of DISH, Texas, Ambient Air Monitoring Analysis*, Final Report (2009); available at http://townofdish.com/objects/DISH_-_final_report_revised.pdf.

c. In the Marcellus Shale region, only limited air quality monitoring has occurred to date, and the highest concentrations of benzene found are far lower than those found in Texas for the Barnett Shale, only 758 ppb. See Pennsylvania Department of Environmental Protection, 2010; *Southwestern Pennsylvania Marcellus Shale Short-Term Ambient Air Sampling Report*; available at http://www.dep.state.pa.us/dep/deputate/airwaste/aq/aqm/docs/Marcellus_SW_11-01-10.pdf. Still, exposure to levels of chemicals such as benzene at these lower levels can pose a significant cancer risk. A recent peer reviewed study suggests a strong link between low-level chronic benzene exposure and risk of leukemia. Talbott et al. 2011. *Risk of Leukemia as a result of community exposure to gasoline vapors: A follow up study*. Environmental Research 111: 597-602.

d. Emissions from internal combustion engines, primarily using diesel fuel, are a significant and damaging source of air pollution associated with extraction of natural gas and petroleum, as these processes rely heavily on such engines for many aspects of the overall process (such well drilling and fracking and a high frequency of heavy truck trips to and from the sites). A study in 2009 by Dr. A. Armendariz of Southern Methodist University (now Director for EPA Region 6) found high levels of smog-forming compounds (nitrogen oxides and volatile organic compounds, or VOC's) in air associated with oil and gas production in the Barnett Shale region of Texas, in addition to greenhouse gases and air-borne toxic chemicals. Armendariz, Al. *Emissions From Natural Gas Production in the Barnett Shale Area and Opportunities for Cost Effective Improvements*, (2009). available at; www.edf.org/documents/9235_Barnett_Shale_Report.pdf. Pollution from vehicle exhaust, fine particulate matter and ozone levels are known to cause a variety of health problems including asthma, chronic obstructive pulmonary disorder, cancer and other diseases. Wargo, John. *The Harmful Effects of Vehicle Exhaust, A Case For Policy Change*. Environment and Human Health, Inc., (2006); available at <http://www.ehhi.org/reports/exhaust/exhaust06.pdf>.

e. The environmental footprint for shale gas is greater than that for conventional gas or oil when viewed on any time horizon, particularly so over 20 years. Compared to coal, the footprint of shale gas is at least 20% greater and perhaps more than twice as great on the 20-year horizon and is comparable when compared over 100 years. Howarth, Robert W., Renee Santoro, Anthony Ingraffea, *Methane and the Greenhouse-Gas Footprint of Natural Gas from Shale Formations*, A Letter, Climatic Change (2011) 106:679-690.

f. A study which focused on air quality in the Southwestern Pennsylvania Marcellus Shale Region found natural gas constituents in the air near Marcellus Shale drilling operations including methane, ethane, propane and benzene. Lazor, Nick. *Southwestern Pennsylvania Marcellus Shale Short-Term Ambient Air Sampling Report*, Bureau of Air Quality, PA Department of Environmental Protection.

V. Health risks include but are not limited to:

a. The health risks associated with the development of natural gas from shale formations has received very little study. Two recent reviews highlight the potential for major health risks and urge precaution. M. Finkel & A. Law, 2011. *The rush to drill for natural gas: A public health precautionary tale*. *American Journal of Public Health*. Published on line in advance of print on March 17, 2011. doi10.2105/AJPH.2010.300089; B. Schwartz & C. Parker, 2011. *Public health concerns of shale gas production*, at pp. 11-15. *Will Natural Gas Fuel America in the 21st Century?*; available at <http://postcarbon.org/naturalgas>.

b. Mounting evidence and analysis of hydraulic fracturing for gas extraction since its inception in the U.S. indicates that a variety of environmental and health impacts are associated with the industry. *Impacts of Shale Gas and Shale Oil Extraction on the Environment and on Human Health*, European Parliament, 2011; available at <http://europa.eu/activities/committees/studies/download.do?language=fr&file=41771>.

c. A press release issued by the New York State Department of Environmental Conservation on September 20, 2012 announced that the New York State Health Commissioner would assess the health impacts of hydraulic fracturing. The health assessment is still pending. See Press Release by the New York State Department of Environmental Conservation, *Commissioner Martens Rejects Call for "Independent" Health Study of High Volume Hydraulic Fracturing: Announces State Health Commissioner to Assess Health Impacts*, September 20, 2012.

d. New York State selected an outside health panel of three experts to review the state's environmental study on hydrofracking. The panel is comprised of John Adgate, chair of the Environmental and Occupational Health Department at the Colorado School of Public Health; Lynn Goldman, dean of George Washington University's School of Public Health and Health Services; and Richard Jackson, chair of the Department of Environmental Health Sciences at the University of California Los Angeles' Fielding School of Public Health. Coin, Glenn. *New York State Selects Outside Panel to Review Hydrofracking Study*, Syracuse Post-Standard (November 15, 2012); available at http://www.syracuse.com/news/index.ssf/2012/11/new_york_state_selects_outside.html#incart_river_default.

e. The process of high volume slick water hydraulic fracturing has been linked to chronic diseases such as respiratory ailments, neurologic impairments and the high likelihood that exposure to fracking chemicals many of which are highly toxic, can cause cancer. Gruver, Mead, *Wyoming Air Pollution Worse than Los Angeles Due to Gas Drilling*, Huffington Post, March 8, 2011; available at http://www.huffingtonpost.com/2011/03/08/wyoming-ait-pollution-gas-drilling_n_833027.html, Lustgarten, Abraham, *EPA Launches National Study of Hydraulic Fracturing*, Circle of Blue, March 18, 2010; available at <http://www.circleofblue.org/waternews/2010/world/north-america/epa-launches-national-study-of-hydraulic-fracturing/>.

f. A review of the potential health effects of chemicals used during natural gas operations found that only 10% of the chemical products used by the natural gas industry had no known health effects, and 90% had at least one potential health effect. Nearly half of the products contained one or more chemicals considered to be endocrine disruptors, which are chemicals that interfere with the human endocrine system. Unlike almost all other industrial processes, natural gas drilling directly introduces chemicals into the land and subsurface of the earth. The brain and nervous system can be harmed by 55% of the chemicals the industry uses. The storage, handling, accidental discharge or intentional discharge of such chemicals could negatively impact the quality of water resources within the Town. Water pollution is hazardous to the public health. Accidental chemical spills, discharges of toxic and hazardous materials, and flooding can threaten the quality and quantity of water supplies and resources both in the Town, posing potential public health and safety hazards. The Endocrine Disruption Exchange, *Chemicals in Natural Gas Operations, Health Effects Spreadsheet and Summary*; available at www.endocrinedisruption.com/chemicals.multistate.php.

g. A 2011 study identified over 632 chemicals used in natural gas extraction; just over half (55%) are well described in the scientific literature. Of these, 75% are known irritants to the eyes, skin, respiratory and GI systems; 40-50% may be neuro-, cardio-, or renotoxic; 37% affect endocrine glands;

and 25% are mutagens or carcinogens. J. Colborn T, Kwiatkowski C, Shultz K, Bachran M, (2011) Natural Gas Operations from a Public Health Perspective, *Human and Ecological Risk Assessment: An International Journal*, 17:5, 1039101056.

h. A presentation by Trevor M. Penning from the Perelman School of Medicine at the University of Pennsylvania set forth the public health issues and impacts of hydraulic fracturing including the health effects of the chemicals used in hydraulic fracturing, potential water pollution from flow-back fluid, potential air pollution, and the vulnerability of certain populations such as pregnant women and children. A study of 11 homes in Dimock, Susquehanna County Pennsylvania impact by hydrofracking revealed 6/11 homes having elevated Na, CH₄, and Cr and 2/11 homes with elevated As. Another study of 7 residential wells in Leroy Township, Bradford County Pennsylvania found 2 wells with Arsenic and elevated Na. Dr. Penning urged the use of the “precautionary principle” with regard to hydrofracking which means: “The precautionary principle states that if an action or policy has a suspected risk of causing harm to the public or to the environment, in the absence of scientific consensus that the action or policy is harmful, the burden of proof that it is not harmful falls on those taking the action.” Penning, Trevor M., Ph.D. *Hydrofracking: Public Health Issues and Impacts* (May 2012).; available at http://www.med.upenn.edu/ceet/documents_user/UNCMarcellusShale_Penning4.pdf.

VI. Community impact findings include but are not limited to:

a. According to preliminary results of an economic study conducted by Susan Christopherson at Cornell University which focused on areas in Pennsylvania where hydraulic fracturing is more developed found: Christopherson, Susan; *Marcellus Hydro-Fracturing, What Does it Mean for Economic Development*, (2011); available at http://www.greenchoices.cornell.edu/downloads/development/Marcellus/Marcellus_Prelim_Results.pdf. : see also, Christopherson, Susan. *The Economic Consequences of Marcellus Shale Gas Extraction: Key Issues*. CaRDI Reports, No. 14, September 2011.

i. An average of 890-1,340 truck trips per well site cause a high potential for road degradation. Without clear direction from the New York State Legislature, taxpayers in the Town of Marcellus and Onondaga County are likely to be financially responsible for resulting road repair.

ii. Bradford County, Pennsylvania saw an increase in demand on health, educational, administrative, emergency response and environmental monitoring services and an increase in public safety costs.

iii. Annual production from a shale gas well declines by about 50 percent in the first year, leaving royalty revenues to drop and does not constitute a long-term strategy for economic development in rural areas.

iv. While gas drilling regions in Pennsylvania do show job gains, a vast number of high paying jobs are not within the state and the long-term economic gain is often not positive at the pace and scale and development seen in Pennsylvania.

v. A rapid increase in activity can be expected once permitting begins based on experience from Pennsylvania, where 71 permits were granted in 2007 compared with 1,984 in 2009, which qualifies the pace of development as a boom and subject to bust.

b. Information gathered by the Tompkins County Council of Governments Task Force on Gas Drilling's Land Value and Assessment Workgroup indicates mortgage lending is often compromised under the conditions stipulated in many gas leases resulting in a decrease in property value and an inability to sell property. *Tompkins County Council of Governments Task Force*; available at http://www.tompkins-co.org/tccog/Gas_Drilling/Focus_Groups/LandValues_Assessment.html.

c. A report on the impact of hydrofracking in Bradford County, Pennsylvania completed by Troy Community Hospital found, among other things: (i) an increase in industry related injuries and exposures including foot and leg wounds, exposure to frack fluids, cellulitis or flesh eating bacteria; (ii) increased traffic and motor vehicle accidents; (iii) higher volume of calls for EMS services; (iv) negative impacts on home care services as a result of increased gas use, road disrepair, and vehicle wear, resulting in decreased productivity; (v) increased workmen's compensation injuries; and (vi) potential contamination of water supplies related to caustic chemicals in fracking which can harm bodily internal organs. Covey, Staci, *Local Experiences Related to the Marcellus Shale Industry*, Troy Community Hospital. May 10, 2011.

d. A study on the potential impacts of gas drilling on the tourism industry in the three county region (Chemung, Schuyler, Steuben) served by the Southern Tier Regional Planning and Development Board found the proliferation of drilling could adversely affect the three county region's tourism industry: (i) high occupancy rates in hotels, motels, campgrounds, and other locations as a result of the influx of gas workers could make it more for visitors to find accommodations; (ii) demand for hotel rooms could lead to higher prices; (iii) the nature of drilling, its visual impacts, could mar the unique visual landscape of the southern tier. The study also concluded that the effects of truck traffic from drilling will include; (i) heavier road traffic, on highways, secondary roads, and city streets; (ii) increased air pollution; (iii) increased noise pollution; (iv) increased traffic accidents and safety risks; and (v) damage to roads, especially secondary roads. Also hunting, fishing and other outdoor recreation which contributes more than \$6 billion to the New York economy annually could be negatively impacted by increased human activity, new roads, truck traffic and pollution. Rumbach, Andrew. *Natural Gas Drilling in the Marcellus Shale: Potential Impacts on the Tourism Economy of the Southern Tier*. 2011.; available at http://www.greenchoices.cornell.edu/downloads/development/marcellus/Marcellus_Rumbach.pdf

e. According to a study by C.J. Randall, a graduate student in the Department of City and Regional Planning at Cornell University, the burden hydrofracking places on existing transportation infrastructure is extensive. Dust, noise and road damage from industry truck travel are tops on the list of citizen complaints in areas where shale is extracted via shale gas drilling. A typical Marcellus well requires 5.6 million gallons of water during the drilling process, in almost all cases delivered by truck. Millions of gallons of liquid used in the short initial drilling period account for half of the estimated 890 to 1340 truckloads required per well site. Because of its weight, the impact of water hauled to one site (364 trips) is the equivalent of 3.5 million car trips. Moreover, local municipalities are predicted to be

impacted most. Estimates regarding risk of damage to roads indicate the risks to state roads is 5% (negligible); the risk at the county level is approximately 20% (low); and the risk to the roads built by towns and municipalities is approximately 90% (high). Randall, CJ. Hammer Down: A Guide to Protecting Local Roads Impacted by Shale Gas Drilling. *Work Paper Series, A Comprehensive Economic Impact Analysis of Natural Gas Extraction in the Marcellus Shale*. December, 2010; available at http://www.greenchoices.cornell.edu/downloads/development/marcellus/Marcellus_Randall.pdf.

f. Chemicals used in the hydrofracking process include but are not limited to Benzene, Formaldehyde, Dioxane, and Hydrochloric Acid. These chemicals are known carcinogens, highly toxic (even at small doses), and can cause damage to the liver, central nervous system, and other organs. Shelly, Tom. *The Health Effects and Other Hazards of Hydrofracking*, Upstate Medical University Public Health Symposium. April 13, 2011.

g. A report authored by Robert Oswald, a professor of molecular medicine at Cornell's College of Veterinary Medicine and veterinarian Michelle Bamberger found that exposure to hydraulic fracturing operation may have led to dozens of cases of illness, death and reproductive issues in cows, horses, goats, llamas, chickens, dogs, cats, fish and other wildlife. Some of the case studies in the report found that in Louisiana, 17 cows died within an hour of direct exposure to hydraulic fracturing fluid with cause of death being attributed to circulatory collapse and respiratory failure. A farmer who had 140 cows exposed to hydraulic fracturing fluid saw 70 of them die and there were high incidences of stillborn and stunted calves. Oswald, Robert et al. Impact of Gas Drilling on Human and Animal Health, *New Solutions: A Journal of Environmental and Occupational Health Policy*, (2012), 22(1): 51-77.

h. In a 2012 report, researchers from Duke University and Resources for the Future studied the impact on property values from shale gas development in Pennsylvania. The study looked at all properties sold in Washington, County, Pennsylvania from 2004 to 2009, which included over 19,000 properties. The study found that the value of properties located within 2000 meters of a well-pad saw an estimated reduction in property values of nearly 24%. The study attributes the reduction in property values to the potential for groundwater contamination associated with drilling. The study found that risks from groundwater contamination "lead to a large and significant reduction in house prices" which "offset any gains to the owners of groundwater-dependant properties from lease payments or improved local economic conditions." Muehlenbachs, Luciga et al. *Shale Gas Development and Property Values: Differences Across Drinking Water Resources*, Discussion Paper (July 2012).

i. In a paper analyzing the relationship of setbacks and percentage of surface and subsurface area available for drilling, Stanley Scobie, commenting on New York's SGEIS, found that proposed bans, moratoria, and setbacks are proportional to the quantity of water served. In other words, water supplies in the most densely populated areas are receiving greater protection while individual homeowners and underutilized watersheds are getting much lower protections. Stanley R. Scobie, *Setbacks: How Far Is Far Enough? Physicians, Scientists and Engineers for Health Energy* (Jan. 11, 2012); available at http://www.psehealthyenergy.org/data/Migration_Setback_health_rdSGEIS2011Comments-FINAL_WITH_FIGURES.pdf.

j. A report by Ronald E. Bishop regarding abandonment of Oil and Gas wells in new York found based on annual reports from the Division of Mineral Resources, New York State Department of Environmental Conservation, over the last twenty-five years the oil and gas industry which has consistently neglected to plug most (89%) of its depleted wells. Since the year 2000, abandoned wells have only been plugged at percentage rates ranging from 3.5% to 7.1 %. Moreover, there is currently no program, existing or proposed to monitor, repair, and plug abandoned wells which have begun to leak. Bishop, Ronald E., *History of Oil and Gas Well Abandonment in New York*, Sustainable Otsego 2000 (Jan. 8, 2012); available at [http://hydroquest.com/Hydrofracking/Bishop%20-%20NYS%20Regulatory%20Well%20Plugging%20Failure\(P\).pdf](http://hydroquest.com/Hydrofracking/Bishop%20-%20NYS%20Regulatory%20Well%20Plugging%20Failure(P).pdf)

k. Although this proposed legislation will act to restrict the exploration, extraction and related activities related to natural gas with the resultant loss of potential jobs and the potential loss of income to various property owners, this Board has considered these impacts and balanced them against the potential adverse environmental impacts and has determined that this legislation should be enacted in the interests of the public health, safety and welfare and the protection of our Town's environment.

Master Plan

a. This proposed local law is consistent with the Town's Comprehensive Plan as set forth in the Town of Marcellus Comprehensive Plan and Final Generic Environmental Impact Statement, November 2001 (hereinafter "Plan"):

- This local law is consistent with Community Planning Goals of the Plan which include the goal to "Preserve the overall rural character of the Town..." and "Encourage protection and preservation of environmental resources."
- The Plan explicitly states that "the Town should coordinate all land uses to preserve and protect the natural environmental resources of the community."
- Pursuant to the Plan, "the Town of Marcellus is a small rural community characterized by large open space areas with active agricultural uses and areas of concentrated residential development."
- Furthermore, this local law is consistent with the historical development of the Town and its goals for future development as set forth in the Plan in that "The Town of Marcellus has not historically encouraged industrial development, nor is it interested in accommodating industrial activities in the future..."
- The Town is affected by a variety of sensitive environmental resources and features which include: regulated wetlands, prime agricultural lands; major water bodies such as areas of Nine Mile Creek, Otisco and Disappearing Lake, mineral deposits, woodlands, steep topography and areas of restrictive soil conditions for on-site septic systems.
- The public policy and regulation of environmental resources is important due to their wide impact and dispersal within the Town.

- This legislation protects and enhances the “small rural community” atmosphere and lifestyle of the Town as well as the aesthetic attributes of the Town, particularly scenic vistas, unique natural areas such the Nine-Mile Creek Corridor, Marcellus Park, Baltimore Woods, and “Disappearing Lake”, special views, as well as the many rolling and steep hills formed by the last glacier period approximately 12,000 years ago.
- This legislation recognizes the importance of the Town’s highway system and the significant cost of maintaining it by protecting it from the high volume, heavy truck traffic associated with natural gas exploration, extraction and related activities.
- This legislation preserves the functioning of local streets, while maintaining livability along local streets and roads, by restricting a use that has demonstrably adversely affected roads in Pennsylvania, where these uses are prevalent.
- This legislation acts to preserve the integrity of the Town’s environment and natural resources of which there are many including: wetlands, woodlands such as Baltimore Woods which covers approximately 170 acres in the Town, parks such as Marcellus Park which covers approximately 51.4 acres in the Town, ground water, open space, the Nine Mile Creek Corridor, the Nine Mile Creek Watershed, Otisco Lake, the Otisco Lake Shore, and the Otisco Lake Watershed.
- This legislation protects valuable groundwater, surface water, farmlands, unique natural areas, wetlands and other natural resources from harmful impacts of natural gas exploration, extraction and related activities - as is amply demonstrated by adverse impacts elsewhere.
- The importance of wetlands to the Town and property owners include the general benefits of flood and storm water control, points of groundwater and aquifer recharge, improved water quality, a diverse variety of plants and animals, and conditions for recreational uses.
- Woodlands throughout the Town act as important buffer zones, wildlife habitat and travel corridors and are visually appealing to the landscape. This legislation protects the integrity of those woodlands by preventing their removal and destruction.
- This legislation further protects the major water bodies located within the Town mainly Otisco Lake and Nine Mile Creek which comprise approximately 156 acres within the Town. The New York State Department of Environmental Conservation has classified Otisco Lake as “AA” which is the highest surface water quality category and is assigned to protect waters for uses including drinking and cooking. Nine Mile Creek is a prolific trout fishing stream and serves as a local open space recreational corridor.
- This legislation protects the Town’s Public Water and Sewer Systems. The Town of Marcellus, through special improvement districts, owns the distribution infrastructure, while the Onondaga County Water Authority (OCWA) provides the water supply, operation and maintenance. The water source for the Marcellus service area is Otisco Lake and OCWA’s treatment plant of Otisco Lake water is located within the Town of Marcellus.

- Furthermore, ground water is a significant source of potable water for households and properties in the Town.
- The Plan recognizes that good water quality is necessary for public health, environmental stability and diversity, and attracting future economic growth and demographic growth to the area.
- The Plan further recognizes that groundwater contamination can quickly spread and affected many wells depending on underground flow direction, type and amount of contamination, soil characteristics, and surrounding land uses.
- This legislation protects the southeast portion of the Town of which 60% is comprised of prime agricultural soil, significant wetlands areas and which 50% of its areas is located within the Otisco Lake watershed.
- This legislation protects the southwest portion of the Town which has 50% prime agricultural soil as well as wetlands.
- This legislation protects the northwest portion of the Town, 50% of which is located in the agricultural district.
- This legislation protects the northeast portion of the Town, which is the most densely populated and residential area of the Town and the public water system its residents rely on.
- This legislation protects and preserves the Town's agricultural lands and the water resources they depend upon. The Plan aptly captures the crucial role agriculture has played in the development and continued vitality of the Town:

“Agriculture has shaped the character of many small communities in Central New York, including the Town of Marcellus. It formed the basis for how the road system, economy, and settlement patterns were initially established. Agriculture continues to influence communities through the sense of open space provided by the large amount of land it occupies and the lack of demand it place upon public services. In Marcellus, pastures and fields dominate the landscape using this land for the growth and production of good, livestock, fabric, decorative plants and similar product. Agriculture has been the main industry of the community since the late 1800's and is also the number one industry in Onondaga County and New York. Some farms are comprised of many individual parcels of land in the Town.....Much of the Town of Marcellus is located within Agricultural District No. 9 (see attached), which is the second largest in Onondaga County and includes a total of 41,473 acres of land. Approximately 14,500 acres are within the Town.”

If Conditioned Negative Declaration, provide on attachment the specific mitigation measures imposed.

For Further Information:

Contact Person: Sandra Taylor, Town Clerk, Town of Marcellus
Address: 24 East Main Street, Marcellus, New York 13108
Telephone Number: (315) 673-3269

For Type I Actions and Conditioned Negative Declarations, a Copy of this Notice Sent to:

Commissioner, Department of Environmental Conservation, 50 Wolf Road, Albany, New York 12233-0001
Appropriate Regional Office of the Department of Environmental Conservation
Office of the Chief Executive Officer of the political subdivision in which the action will be principally located
Environmental Notice Bulletin

A motion was made by Councilor Lathrop for the Negative Declaration under SEQRA for this act.

The motion was seconded by Councilor O'Hara. All voted aye.
Carried.

Supervisor Ross reopened the Public Hearing at 7:35.

Anita Williams from the Town of Onondaga and President of the Otisco Lake Preservation Association,
Thanked the Board for all the research they have done regarding the Hydrofracking issue. Also, for bringing both sides of the issue to the Community.

Supervisor Ross would like to have the SEQRA posted on the website. Since the moratorium doesn't expire until January of 2013, people would have a chance to write into the Town Hall with their comments.

Jim Gascon, Town Attorney, mentioned that we are also sending this Local Law to the County for their assessment. This way the County can also review the information and give us their comments.

There was no objection to going with this procedure. There will be a vote at the January 2013 Town Board Meeting.

Copies of the minutes of the Town Board Meeting held on November 8, 2012, was given to the Board Members. Councilor O'Hara made a motion seconded by Councilor Lathrop to approve the minutes as presented. All voted aye. Carried.

The Abstract of Audited Vouchers was given to the Board Members as submitted by the Town Clerk, Abstract # 12 as of December 10, 2102, Claims # 201200937-2012001011 and Highway Claims #201200196-201200217.

	<u>Expenses</u>
General Fund	\$80,772.35
General Fund – Part Town	18,351.78
Highway – Town Wide	31,857.65
Highway – Part Town	28,270.08
Enterprise Fund	
Fire	
Hydrant	
Ambulance Fund	
Sewer	8,502.03
Water	
Trust & Agency	

Board Members were given copies of the Activity Report as of November 30, 2012 and monthly statement of bank balances as of November 30, 2012.

	<u>Total Revenue</u>	<u>Total Expense</u>
General Fund	\$1,251,831.45	\$1,188,295.59
General Fund – Part Town	108,329.00	112,501.03
Highway – Town Wide	483,430.82	298,950.29
Highway – Part Town	331,123.70	462,999.17
Enterprise		

Capital Projects	8,557.50	59,627.72
Reserve	7,635.00	
Fire District	578,340.16	550,601.89
Hydrant Fund	1,900.11	1,757.79
Ambulance Fund	261,532.78	262,329.00
Sewer District	133,417.77	159,522.93
Water District	186,961.17	190,913.24

Councilor Hakes made a motion seconded by Councilor Lathrop to approve and pay the bills, approve the monthly activity report as of November 30, 2012 and the monthly statement of bank balances as of November 30, 2012. All voted aye. Carried.=

OLD BUSINESS:

Report from Department Liaisons: None

NEW BUSINESS:

Set Time for the December 27, 2012 Year-End Meeting and Workshop Meeting: A motion was made by Councilor Lathrop to set the time at 5:00 for the year end meeting with the Workshop meeting immediately following. This was seconded by Councilor Hakes. All voted aye. Carried.

Set Time and Date for the 2013 Organizational Meeting: Councilor Hakes made A motion to set the 2013 Organizational Meeting for Thursday, January 3, 2013 at 5:00 pm. Councilor Lathrop seconded this motion. All voted aye. Carried.

Contract: Amendment to Purchase Fuel: Councilor O’Hara made a motion for Supervisor Ross to sign the contract to Purchase Fuel with the County. This was seconded by Councilor Lathrop. All voted aye. Carried.

Insurance Renewal – Fire Barn Coverage: A motion was made by Councilor Lathrop to approve the Insurance Renewal for the Fire Barn Coverage. There is a slight increase in this policy. Councilor Hakes seconded this motion. All voted aye. Carried.

Insurance Renewal – Workers’s Comp – Volunteer Ambulance: Councilor O’Hara made a motion to approve the Insurance Renewal for the Workers Comp and Volunteer Ambulance . This was seconded by Councilor Hakes. All voted aye. Carried.

Insurance Renewal – Volunteer Firefighters, Town of Marcellus, NY Assessment: A motion was made by Councilor Hakes and seconded by Councilor O’Hara to renew The Insurance for the Volunteer Firefighters, Town of Marcellus and NY Assessment. All voted aye. Carried.

Holiday Schedule: A motion was made by Supervisor Ross to close the Town Offices on Monday, December 24, 2012, and be open on Monday, December 31, 2012. This was seconded by Councilor Hakes. All voted aye. Carried.

Purchase of Bobcat Skid-Steer Loader: A motion was made by Councilor Lathrop to

Purchase the S650 Bobcat Skid-Steer Loader. Councilor O'Hara seconded this motion.
All voted aye. Carried.

Zumba Agreement: Councilor Lathrop made a motion to approve the Zumba agreement that runs Nov. 1, 8, 15, 29, Dec. 6, 13 and 20. The cost per person is \$40.00. Councilor Hakes seconded this motion. All voted aye. Carried.

Discussion Agenda

Items from the Board:

Councilor Hakes spoke about the information from "Adjacent, Inc.," the website design and development Company. The payments could be in phases and they complete certain phases of the job.
Supervisor
Ross suggested that they look at it a little more closely at the workshop meeting to be held on December 27, 2012.

Jim Gascon, Town Attorney, introduced his associate Mr. Andino.

Items from the Floor

Mr. Murphy asked why the word "hydrofracking" was not on the agenda. Supervisor Ross and Jim Gascon, Town Attorney, explained to him that the Town cannot tell a gas company what methods to use.

Mr. Scanlon asked about a yearly maintenance fee for the web. That will all be talked about at the December 27, 2012 meeting.

Peg Kronen was asking about if you will be able to send in payments for pavilions through the Web site.

Councilor Hakes made a motion seconded by Councilor O'Hara to adjourn the Marcellus Town Board meeting at 8:15 P.M. All voted aye.
Carried.

Respectfully submitted,

Sandy Taylor, Town Clerk

