

**TOWN OF MARCELLUS
TOWN BOARD MEETING MINUTES**

January 14, 2013

A regular meeting of the Town Board of the Town of Marcellus, County of Onondaga, State of New York was held on, 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
John Scanlon, Jr., Councilor
Kevin F. O’Hara, Councilor
Peter Hakes, Councilor

Also present: Sandy Taylor, Town Clerk; Susan Dennis, Deputy Town Clerk; Jim Gascon, Counsel; Tracie Barnes, Accountant; Don MacLachlan, Highway Superintendent; Phil Coccia, Recreation Leader; Dennis Scanlon, Ed Riefler, Jason Decker, Nancy Bunn, Bill Burnette, Chris Poole, Justin Hobby, Chuck Paul, Mary Jo Paul, Anita Williams, Peg Kronen, Dan Gooden, Scott Hodgson, Morgan Reilly, Mary Nolan, Jake Dillon, Chris Christiansen, Brian O’Connell, Lynn Cahill Hoy, Maribeth Rayfield and Dawn O’Hara.

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

Copies of the minutes of the Town Board Meeting held on December 10, 2012, the Year-End Meeting held on December 27, 2012, the Workshop Meeting held on December 27, 2012, and the Organizational Meeting held on January 3, 2013, 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 #13 (December 2012) and #1 (January 2013) as of January 14, 2013, Claims # 201201046 – 201201064 (December 2012) and 201300001- 201300043 (January 2013) and Highway Claims # 201200218 – 201200224 (December 2012) and 201300001 – 201300004 (January 2013).

	<u>Expenses</u>
General Fund	\$55,027.09
General Fund – Part Town	2,019.38
Highway – Town Wide	16,236.93
Highway – Part Town	7,559.34
Enterprise Fund	
Fire	58,308.00
Hydrant	
Ambulance Fund	12,339.00

Sewer 2,123.05

Water
Trust & Agency

Councilor Lathrop made a motion seconded by Councilor O'Hara to approve and pay the bills. All voted aye. Carried.

NOTE: From Tracie Barnes, Accountant. Monthly activity for 1/1/13 – 1/14/13 was not available as the previous year's activity has not been closed and reports could not yet be generated.

No budget adjustments or amendments necessary. Accountant to provide final 2012 budget comparison report at 2/11/13 Town Board Meeting

OLD BUSINESS:

Report from Department Liaisons: Supervisor Ross advised the Board that since this is the first meeting of the year, just as a reminder, the Board liaisons are as follows:

Tom Lathrop – Marcellus Park
Kevin O'Hara – Codes Department
John Scanlon, Jr. – Highway Department
Peter Hakes – IT issues

Supervisor Ross also mentioned that the Town of Marcellus has started a Twitter Account. The name of the account is @Town of Marcellus. This is another way to let people know what is going on in the Town.

- A. **Local Law 7-2012 Amending the Town of Marcellus Zoning law as Enacted by Local Law No. 4 – 2009, titled “Town of Marcellus Zoning law of 2009”, as heretofore amended by adding certain new definitions; confirming and clarifying that any uses not expressly or specifically permitted are prohibited; articulating certain prohibit uses; deleting certain provisions and establishing a severability clause.**

A motion was made by Councilor Lathrop to adopt Local Law No 7 – 2012. This was Seconded by Councilor O'Hara. Supervisor Ross explained that this was a long time coming, we have had many moratoriums while research has been done. There still aren't enough answers to long term effects. Jim Gascon, Council, explained that we are Amending Local Law No 4 – 2009, not Local Law No. 6-2009. Jim Gascon also stated that The Onondaga County Planning Board has determined that said referral will have no significant adverse inter-community or county-wide implications and my consequently be acted on solely by the referring board.

Councilor Lathrop Aye
Councilor O'Hara Aye

Councilor Hakes Aye
Councilor Scanlon Aye
Supervisor Ross Aye

Local Law #7-2012 has been adopted by the Town Board on January 14, 2013.

**TOWN BOARD ENACTMENT RESOLUTION
LOCAL LAW NO. 7-2012**

TOWN OF MARCELLUS

At a regular meeting of the Town Board of the Town of Marcellus, held at the Town Hall, 24 East Main Street, in said Town, County of Onondaga, State of New York on January 14, 2013, at 7:00 P.M., there were:

PRESENT:	Daniel J. Ross	Town Supervisor
	Peter Hakes	Councilman
	John Scanlon	Councilman
	Thomas C. Lathrop	Councilman
	Kevin O'Hara	Councilman

WHEREAS, pursuant to the provisions of the Municipal Home Rule Law, a proposed local law titled "Local Law No. 7-2012, A Local Law Amending The Town Of Marcellus Zoning Law As Enacted by Local Law No. 4-2009, Titled "Town of Marcellus Zoning Law of 2009", As Heretofore Amended 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," was presented and introduced at a regular meeting of the Town Board of the Town of Marcellus held on November 8, 2012; and

WHEREAS, Proposed Local Law No. 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, a public hearing was held on Proposed Local Law No. 7-2012 on the 10th day of December, 2012 by the Town Board of the Town of Marcellus and proof of publication of notice of such public hearing, as required by law, having been submitted and filed, and all persons desiring to be heard in connection with said proposed local law having been heard, and said proposed local law having been in the possession of the members of the Town Board of the Town of Marcellus in its final form in the manner required by Section 20 of the Municipal Home Rule Law of the State of New York; and

WHEREAS, notice of the public hearing on Proposed Local Law No. 7-2012 was also given to all adjoining municipalities and they were given a full and fair opportunity to be heard at said public hearing on December 10, 2012; and

WHEREAS, it was determined on November 8, 2012 that the adoption of said Proposed Local Law No. 7-2012 is a Type I action for purposes of environmental review under the New York State Environmental Quality Review Act (SEQRA); and

WHEREAS, the SEQRA process for this action was completed by this Board at its December 10, 2012, meeting, this Board, having determined no other agency has the legal authority or jurisdiction to approve or directly undertake the enactment of a local law in the Town of Marcellus, such that there are no other involved agencies within the meaning of the State Environmental Quality Review Act (SEQRA) with respect to the proposed enactment of said Local Law, with the result that the Town Board assumed lead agency status in this matter; and

WHEREAS, it was determined on December 10, 2012 that enactment of said Proposed Local Law No. 7-2012 would not have a significant adverse effect on the environment and therefore a Negative Declaration was adopted for purposes of SEQRA, (A copy of the Negative Declaration is attached hereto and made part hereof as **Schedule B**); and

WHEREAS as required by General Municipal Law, Section 239, this Local Law was referred to the Onondaga County Planning Agency and that Agency at its meeting held on December 27, 2012 determined that the proposed legislation will have no significant adverse inter-community or county-wide implications and may consequently be acted on solely by the referring Board, and

WHEREAS, it is the determination of this Board that it is in the public interest to enact said Proposed Local Law No. 7-2012.

NOW, upon the Motion of Councilor Lathrop and seconded by Councilor O'Hara,

IT IS HEREBY RESOLVED, that in addition to the findings set forth in **Schedule A**, the Town Board makes the following additional findings with regard to Proposed Local Law No. 7-2012:

Authority. This Local Law is intended to be consistent with and is adopted pursuant to the authority granted to the Town Board of the Town of Marcellus under the New York State Constitution, and the Laws of the State of New York, including but not limited to the following authorities: New York State Constitution Article IX, Section 2 (c)(ii)(6), (10); Municipal Home Rule Law § 10(1)(i); Municipal Home Rule Law § 10(1)(ii)(a)(6), (11), (12), and (14); Municipal Home Rule Law § 10(1)(ii)(d)(3); Municipal Home Rule Law § 10(2); Municipal Home Rule Law § 10(3); Municipal Home Rule Law § 10(4)(a), and (b); Statute of Local Governments §10(1), (6), and (7); Town Law § 64 (17-a), (20-b), and (23); Town Law § 130(5), (6), (7), (8), (11), (14), (15), and (23); Town Law § 135; Town Law Article 16 (Zoning & Planning) inclusive; Environmental Conservation Law § 17-1101, §27-0711; and New York State Law, Public Health Law § 228 (2), and (3).

Findings of Fact.

1. Marcellus is a community in Onondaga County that takes great pride in and assigns great value to the rural residential character, small-town atmosphere, and scenic and other natural resources that contribute to the high quality of life the Town is known for.

2. Maintaining the quality of water resources within the Town is critical to protecting the natural environment of the Town, the general health and welfare of Town residents, and the local economy, especially in those areas of the Town that are not serviced by public water.

3. Preservation of the Town's irreplaceable recreation sites, high-quality agricultural land, air quality and water quality, and priceless and unique character, is of significant value to the inhabitants of the Town and to the tourists who visit here.

4. The Town's rich natural and visual environment is a valuable asset that creates a sense of identity and well-being for residents of the area. Preserving and protecting the scenic and other natural resources of the Town is important for both a healthy environment and vibrant economy. Aesthetic issues are real and evoke strong reactions from people. They deeply affect the way people feel about a place – whether or not businesses will want to locate, or people will want to live in and visit a place.

5. Allowing one or more of the Prohibited Uses described in Section 3 of the Local Law to be conducted within the Town could impair the existing character of the Town, because by their very nature such activities have the potential to produce a combination of negative impacts upon the environment and people living in or in proximity to the communities in which they are located. Such negative 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, 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 the tourism industry.

6. If one or more of the Prohibited Uses described in Section 3 of the Local Law are conducted within the Town, traffic generated thereby could be hazardous or inconvenient to the inhabitants of the Town and could be dangerous to pedestrians (especially children), cyclists, and motorists, and could result in traffic congestion that could delay emergency response times for medical emergencies, fires and accidents. Roads are a critical public resource and constitute a major investment of the public's money. Weather conditions and budget constraints already make it a challenge for the Town Highway Department to perform all of the maintenance they would like. The Town is not in a position to bear the high costs associated with the road use impacts that accompany many of the activities prohibited by Section 3 of the Local Law. Accidents involving heavy trucks have greater potential for death and serious injury than those involving smaller vehicles. Increased truck traffic increases air pollution and noise levels, and decreases the quality of life and property values for those living nearby.

7. Allowing one or more of the Prohibited Uses described in Section 3 of the Local Law to be conducted within the Town could negatively impact the agricultural and tourism industries within the Town.

8. If one or more of the Prohibited Uses described in Section 3 of the Local Law are conducted within the Town, the air pollution, dust and odors generated thereby (whether onsite or by truck traffic to and from the proposed site of such activities) could be hazardous or inconvenient to the inhabitants of the Town. Air pollution is a known hazard to the public health.

9. Allowing one or more of the Prohibited Uses described in Section 3 of the Local Law to be conducted within the Town could negatively impact the quality of water resources within the Town. Water pollution is

hazardous to the public health. If a domestic water source is contaminated, remediation is time and cost intensive, and may not restore the water resource to a quality acceptable for domestic use. Considerable areas of the Town are dependent upon ground water for their potable water source.

10. If one or more of the Prohibited Uses described in Section 3 of the Local Law are conducted within the Town, noise, vibrations, and light pollution typically caused by such activities could be hazardous or inconvenient to the inhabitants of the Town. Noise, traffic congestion, nighttime lighting, and vibrations can have negative effects on human health and wildlife.

11. The creation, generation, keeping, storage or disposal of Natural Gas and/or Petroleum Extraction, Exploration or Production Wastes (as that term is defined in Section 1 of the Local Law) within the Town could have a negative impact on the public health, safety, and welfare of the inhabitants of the Town.

12. The high costs associated with the disposal of Natural Gas and/or Petroleum Extraction, Exploration or Production Wastes (as that term is defined in Section 1 of the Local Law) have in other localities resulted, and could in our Town result, in persons seeking to avoid such costs by depositing such material along roadways, in vacant lots, on business sites, in the private dumpsters of others, or in other unauthorized places. Such activities could pose a hazard to the public health, safety, and welfare of the inhabitants of the Town.

13. The explicit proscription of the Prohibited Uses described in Section 3 of the Local Law is a legitimate goal of land use laws. There is no question that exclusion of specified industrial uses is a legitimate goal of such laws:

As the United States Supreme Court stated in *Town of Belle Terre v. Borass*, 416 U.S. 1 (1974):

the concept of public welfare is broad and inclusive.... The values that it represents are spiritual as well as physical, aesthetic as well as monetary. It is within the power of the [local] legislature to determine that the community should be beautiful as well as healthy, spacious as well as clean, well-balanced as well as carefully patrolled. 416 U.S. at 6.

And see also *Matter of Gernatt Asphalt Products, Inc. v. Town of Sardinia*, 87 N.Y. 2d 668 (1996), where the Court of Appeals, New York State's highest court, evaluated a claim that a town's prohibition of mining throughout the town was in effect unconstitutional 'exclusionary zoning,' and held as follows:

*We have never held, however, that the ... ['exclusionary zoning'] test, which is intended to prevent a municipality from improperly using the zoning power to keep people out, also applies to prevent the exclusion of industrial uses. **A municipality is not obliged to permit the exploitation of any and all natural resources within the town as a permitted use if limiting that use is a reasonable exercise of its police power to prevent damage to the rights of others and to promote the interests of the community as a whole.*** 87 N.Y. 2d at 683, 684. (emphasis added.)

Purposes and Intent.

The Purposes and Legislative Intent respecting this Local Law are as follows:

A. Purposes. This Local Law is enacted so as to take proactive steps to protect and preserve the quality of the Town's air and water and historic resources, and other assets, and to protect and promote the health, safety, and

welfare of the Town and its present and future residents. Without limiting the generality of the foregoing, this Local Law is intended and is declared by the Town Board to:

(1) promote the purposes of planning and land use regulation by, among other things, preserving the roads, and fire, police, and other emergency response services in the Town;

(2) promote the health, safety, and welfare of the Town, its present and future inhabitants, by protecting them from the adverse public nuisance and/or land use impacts and effects that could result if one or more of the Prohibited Uses described in Section 3 of this Local Law were allowed to be conducted within the Town;

(3) protect the Town's priceless and unique character, the preservation of which is of significant value to the inhabitants of the Town and the tourists who visit here, by protecting it from the adverse public nuisance and/or land use impacts and effects that could result if one or more of the Prohibited Uses described in Section 3 of this Local Law were allowed to be conducted within the Town; and

(4) protect the Town's irreplaceable historic, water quality, air quality, scenic and other natural resources, by protecting them from the adverse public nuisance and/or land use impacts and effects that could result if one or more of the Prohibited Uses described in Section 3 of this Local Law were allowed to be conducted within the Town.

B. Declaration of Intent.

(1) Exercise of Police Power. This Local Law is a police power, public nuisance and land use regulation, designed to establish and provide for general land use regulation, environmental protection, public safety, prevention of increased traffic congestion, protection of agricultural resources, preservation of the character of the Town, protection of air quality, protection of water resources quality, prevention of noise and disturbance, protection against diminished property values, and protection of the public from nuisance and/or land use effects and impacts, resulting from the Prohibited Uses described in Section 3 of this Local Law.

(2) Prohibition Against Specified Solid Wastes. This Local Law also intends to regulate, in a manner consistent with law, including without limitation, NY ECL § 27-0711, and conducive to the health and welfare of the citizens of the Town, the dumping, discharging, injection, and disposal of materials herein defined as "Natural Gas and/or Petroleum Extraction, Exploration or Production Wastes" on lands and in bodies of water within the Town.

(3) Protection of Private Drinking Water Supplies. This Local Law is intended to protect drinking water supplies and is intended to supplement and enhance and is not intended to impinge upon the Safe Drinking Water Act and the Underground Injection Control programs administered by the Environmental Protection Agency.

(4) Matters of Local Concern. This Local Law is intended to and is hereby declared to address matters of local concern, and it is declared that it is not the intention of the Town Board to address matters of statewide concern.

(5) Negative Externalities. This Local Law is intended and is hereby declared to impose conditions and restrictions on the use of property that are directly related to and incidental to the use of that property, and such conditions and restrictions are aimed at minimizing or precluding the adverse impact on the Town that could result

from an inappropriate use of the property that could otherwise adversely affect the comfort, peace, enjoyment, health, and safety of the surrounding land.

(6) Land Use Control. This Local Law is intended to act as and is hereby declared to be an exercise of the permissive “incidental control” of a police power law that is concerned with the broad area of land use planning and the physical use of land and property within the Town, including the physical externalities associated with certain land uses, such as negative impacts on roadways and traffic congestion and other deleterious impacts on a community. This Law is not intended to regulate the operational processes of any business. This Local Law is a law of general applicability and is intended to promote the interests of the community as a whole; and

IT IS HEREBY FURTHER RESOLVED, that the Town Board of the Town of Marcellus, Onondaga County, New York, does hereby enact Proposed Local Law No. 7-2012 as Local Law No. 7 of 2012 as follows:

**TOWN OF MARCELLUS
PROPOSED LOCAL LAW NO. 7-2012**

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”, AS HERETOFORE AMENDED 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.

BE IT ENACTED by the Town of Marcellus acting through its duly constituted Town Board that this Local Law amends the “Town of Marcellus Zoning Law of 2009,” enacted by Local Law NO. 6-2009 (hereinafter the “Town of Marcellus Zoning Law”), as follows:

Section 1. Amendments to Section 4, titled “Definitions”, of the Town of Marcellus Zoning Law.

Section 4, titled “DEFINITIONS”, of the Town of Marcellus Zoning Law is hereby amended to add new definitions to read as follows:

(A) Section 4 of the Town of Marcellus Zoning Law is hereby amended so as to insert the following definition of “NATURAL GAS” therein.

“**Natural Gas**” shall mean any gaseous substance, either combustible or noncombustible, which is produced in a natural state from the earth and which maintains a gaseous or rarified state at standard temperature and pressure conditions, and/or gaseous components or vapors occurring in or derived from petroleum or other hydrocarbons.

- (B) Section 4 of the Town of Marcellus Zoning Law is hereby further amended so as to insert the following definition of “NATURAL GAS AND/OR PETROLEUM EXPLORATION” therein.

“Natural Gas and/or Petroleum Exploration” shall mean geologic or geophysical activities related to the search for natural gas, petroleum or other subsurface hydrocarbons including prospecting, geophysical and geologic seismic surveying and sampling techniques, which include but are not limited to core or rotary drilling or making an excavation in the search and evaluation of natural gas, petroleum, or other subsurface hydrocarbon deposits.

- (C) Section 4 of the Town of Marcellus Zoning Law is hereby further amended so as to insert the following definition of “NATURAL GAS AND/OR PETROLEUM EXPLORATION AND PRODUCTION MATERIALS” therein.

“Natural Gas and/or Petroleum Exploration and Production Materials” shall mean any solid, semi-solid, liquid, semi-liquid or gaseous material used in the exploration or extraction of natural gas.

- (D) Section 4 of the Town of Marcellus Zoning Law is hereby further amended so as to insert the following definition of “NATURAL GAS EXPLORATION AND/OR PETROLEUM PRODUCTION WASTES” therein.

“Natural Gas Exploration and/or Petroleum Production Wastes” shall mean any garbage, refuse, cuttings, sludge, flow-back fluids, produced waters or other discarded materials, including solid, liquid, semi-solid, or contained gaseous material that results from or is associated with the exploration, drilling or extraction of natural gas and/or petroleum.

- (E) Section 4 of the Town of Marcellus Zoning Law is hereby further amended so as to insert the following definition of “NATURAL GAS AND/OR PETROLEUM EXTRACTION” therein.

“Natural Gas and/or Petroleum Extraction” shall mean the digging or drilling of a well for the purposes of exploring for, developing or producing natural gas, petroleum or other subsurface hydrocarbons.

- (F) Section 4 of the Town of Marcellus Zoning Law is hereby further amended so as to insert the following definition of “NATURAL GAS AND/OR PETROLEUM SUPPORT ACTIVITIES” therein.

“Natural Gas and/or Petroleum Support Activities” shall mean the construction, use, or maintenance of a storage or staging yard, a water or fluid injection station, a water or fluid gathering station, a natural gas or petroleum storage facility, or a natural gas or petroleum gathering

line, venting station, or compressor associated with the exploration or extraction of natural gas or petroleum.

Section 2. Section 6, titled “Application of Regulations”, of the Town of Marcellus Zoning Law is hereby amended so as to replace the present title of such Section and to add a new subparagraph therein to confirm and clarify that any uses not expressly or specifically permitted are prohibited.

Section 6 of the Town of Marcellus Zoning Law is hereby amended: (i) so as to replace the present title of such Section (“Application of Regulations”) with the words “Application of Regulations; Any use not expressly or specifically permitted is prohibited.”; and (ii) to add a new subparagraph “F.” to such Section as follows:

Section 6: Application of Regulations; Any use not expressly or specifically permitted is prohibited.

F. Any use not expressly or specifically set forth as a permitted use in any zone shall be prohibited in that zone. A use specifically set forth as a permitted use in one zone shall not be permitted in another zone unless it is expressly and specifically set forth as a permitted use in said other zone.

Section 3. The Town of Marcellus Zoning Law is hereby amended to add a new Section 17.1 titled “PROHIBITED USES”.

The Town of Marcellus Zoning Law is hereby amended so as to add the following new Section 17.1 thereto, said new Section 17.1 to be inserted immediately after the text of present Section 17 thereof (titled “Adult Entertainment”) and immediately prior to the text of present Section 18 thereof (titled “Nonconforming Structures and Uses”):

Section 17.1 Prohibited Uses.

A. PROHIBITED USES:

The following uses and activities are hereby expressly and explicitly prohibited in each and every zone within the Town, and no building or structure, permanent temporary or otherwise, shall be created, altered, maintained or erected, and no body of water, land, or building or structure thereon shall be used, for any such uses or activities:

- (1) Prohibition against the Exploration for or Extraction of Natural Gas and/or Petroleum.

No land in the Town shall be used: to conduct any exploration for natural gas and/or petroleum; to drill any well for natural gas; to transfer, store, process or treat natural gas; or to dispose of natural gas exploration or production wastes; or to erect any derrick, building, or other structure; or to place any machinery or equipment for any such purposes.

- (2) Prohibition against the Storage, Treatment and Disposal of Natural Gas and/or Petroleum Exploration and Production Materials.

No land in the Town shall be used for: the storage, transfer, treatment and/or disposal of natural gas and/or petroleum exploration and production materials.

- (3) Prohibition against the Storage, Treatment and Disposal of Natural Gas and/or Petroleum Exploration and Production Wastes.

No land in the Town shall be used for: the storage, transfer, treatment and/or disposal of natural gas and/or petroleum exploration and production wastes.

- (4) Prohibition against Natural Gas and/or Petroleum Support Activities.

No land in the Town shall be used for natural gas and/or petroleum support activities.

B. NO APPLICATION TO CUSTOMARY LOCAL DISTRIBUTION LINES ETC.

The prohibited uses set forth above in this Section are not intended, and shall not be construed, to (a) prevent or prohibit the right to use roadways in commerce or otherwise for travel; (b) prevent or prohibit transmission lines or the transmission of natural gas through utility pipes, lines, or similar appurtenances for the limited purpose of supplying natural gas to residents of or buildings located in the Town; or (c) prevent or prohibit the incidental or normal sale, storage, or use of lubricating oil, heating oil, gasoline, diesel fuel, kerosene, propane in connection with legal or otherwise permitted, agriculture, residential, business, light industrial and other uses within the Town.

C. INVALIDITY OF PERMITS.

No permit issued by any local, state or federal agency, commission or board for a land use which would violate the prohibitions of this section or of this Section 17.1 shall be deemed valid within the Town.

Section 4. Amendment to Section 11, titled “A-1 Agricultural Zone”, of the Town of Marcellus Zoning Law.

Section 11 of the existing Town of Marcellus Zoning Law is hereby amended so as to delete the text of subsection (A)(3)(i) (which begins “Exploration, drilling, production, transportation, and processing of oil and natural gas”), including any and all subsections, subparts, subparagraphs contained therein, in its entirety.

Section 5. Superiority of this Local Law.

This local law shall supersede or repeal any prior inconsistent Local Law or local law in the Town of Marcellus purporting to allow natural gas and/or petroleum exploration, natural gas and/or petroleum extraction, natural gas and/or petroleum support activities or the transport, storage, treatment, disposal of natural gas and/or petroleum production wastes or materials.

Section 6. Severability.

If any word, phrase, sentence, part, section, subsection, or other portion of this Local law, or the application thereof to any person or to any circumstance, is adjudged or declared invalid or unenforceable by a court or other tribunal of competent jurisdiction, then, and in such event, such judgment or declaration shall be confined in its interpretation and operation only to the provision of this Local Law that is directly involved in the controversy in which such judgment or declaration is rendered, and such judgment or declaration of invalidity or unenforceability shall not affect or impair the validity or enforceability of the remainder of this Local Law or the application hereof to any other persons or circumstances. If necessary as to such person or circumstances, such invalid or unenforceable provision shall be and be deemed severed herefrom, and the Town Board of the Town hereby declares that it would have enacted this Local Law, or the remainder thereof, even if, as to particular provisions and persons or circumstances, a portion is severed or declared invalid or unenforceable.

Section 7. Effective Date of this Local Law.

This Local Law shall be effective upon filing with the office of the Secretary of State.

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

Daniel J. Ross	Supervisor	Voted	Aye
Peter Hakes	Councilman	Voted	Aye
John Scanlon	Councilman	Voted	Aye
Thomas C. Lathrop	Councilman	Voted	Aye
Kevin O'Hara	Councilman	Voted	Aye

Resolution duly adopted.

Dated: January 14 2013

SCHEDULE A

Findings

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 Onondaga.

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://europarl.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-air-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, Schuylers, 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."
- 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..."
- 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.
- 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, particularly in the southern portions of the Town.
- 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 of which 50% 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 the 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.”

- See “Findings of Fact” set forth in Appendix A to proposed Local Law for additional findings.

SCHEDULE B

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 Provision and Articulating Prohibited Uses

SEQR Status: Type I X
Unlisted

Conditioned Negative Declaration: Yes No

Description of Action: Amendment to the Town of Marcellus Zoning Law of 2009 to Add Certain 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

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

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

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 Onondaga.

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://europarl.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-air-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, C.J. 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_rdSCEIS2011Comments-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."
- 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..."
- 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.
- 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, particularly in the southern portions of the Town.
- 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 of which 50% 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 the 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.”

- See “Findings of Fact” set forth in Appendix A to proposed Local Law for additional findings.

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

NEW BUSINESS:

The Association of Towns –Approval of Dues: A motion was made by Councilor Hakes to pay \$1,100 to The Association of Towns of the State of New York. The amount is based on populations of the Town. The motion was seconded by Councilor O’Hara. All voted aye. Carried.

The Association of Towns 2013 Training School Information: Supervisor Ross read To the Board the information from the New York State Association of Towns concerning the 2013 Training School and Annual Meeting, being held at the Hilton New York & Towers in New York City from February 17, 2013 through February 20, 2013. Supervisor Ross advised the Board that if anyone wishes to attend, please let the Town Clerk know.

Approval of the Town Clerks BAS Software: A motion was made by Councilor Hakes and seconded by Councilor Lathrop to approve the Town Clerks software from BAS at a price of \$885 for the year. All voted aye. Carried.

TDK-ENGINEERING ASSOCIATES – BUILDING ADDITION EVALUATION: A motion was made by Councilor Lathrop to approve the Cost Estimates from TDK Engineering relating to expanding the size of the meeting room. The total estimating fee is \$12,300. After some discussion, the motion was seconded by Councilor Hakes. All voted aye. Carried.

WEBSITE CONTRACT: A motion was made by Councilor Lathrop and Seconded by Councilor O’Hara to authorize Supervisor Ross to enter into the Website Contract with Adjacent. The estimated cost is \$9,300. To create a whole New web site for the Town of Marcellus. The hourly rate to train staff to keep The site up and running is \$50.00 per hour. All voted aye. Carried.

ANTIVIRUS SOFTWARE PROPOSAL: Supervisor Ross received an e-mail from Peter Knowles for anti-virus software. The cost would be \$725.00 for a three year Licensing period for 15 users. There would be a onetime cost of \$875.00 for labor. A motion was made by Councilor Hakes and seconded by Councilor Lathrop to approve this proposal. All voted aye. Carried.

AGREEMENT; RENTAL FOR SENIOR LUNCHEON AT METHODIST CHURCH: Councilor Scanlon made a motion seconded by Councilor O’Hara to authorize Supervisor Ross to enter into an agreement with the Methodist Church for The rental of the Community Room for Senior Luncheons in the amount of \$2,000.00 for January 1, 2013 through December 31, 2013. All voted aye. Carried.

ONONDAGA COUNTY TOWN CLERKS ASSOCIATION DUES: A motion was made by Councilor Lathrop and seconded by Councilor O’Hara to pay the annual membership fee of \$20.00 to the Onondaga County Town Clerks’ Association. All voted aye. Carried.

APPROVE THE TOWN CLERK AND JUSTICE COURTS 2012 RECORDS:

Councilor Lathrop made a motion seconded by Councilor Hakes to approve the Justice Court and Town Clerks books for the year 2012. All voted aye. Carried.

Discussion Agenda

Items from the Board

Councilor Scanlon wants to publicly congratulate Stephen Larison on his Eagle Scout Award. A congratulations letter was sent to him on behalf of the Board.

Mr. Gooden, representing the Boy Scouts would like to formally request the use of the Park in Late September for a large camporee. Mr. Coccia, our Recreation Director will will on this with Mr. Gooden.

Mr. Gooden also asked if the Town had any projects they would like the scouts to work on.

Items from the Floor

Justin Hobby, from the Eagle News, asked some questions regarding the Web site.

Mary Jo Paul, asked about some of the dollar amounts on some of the contracts.

Councilor Hakes made a motion seconded by Councilor Scanlon to adjourn the Marcellus Town Board meeting at 8:00 P.M. All voted aye. Carried.

Respectfully submitted,

Sandy Taylor, Town Clerk