PUBLIC SCOPING MEETING FOR
SUPPLEMENTAL GENERIC ENVIRONMENTAL IMPACT
STATEMENT ON DEC'S OIL AND GAS REGULATORY
PROGRAM FOR THE MARCELLUS SHALE.

HELD ON: November 12th, 2008
HELD AT: Haverling Central School

DEC APPEARANCES:

Susan Dubois, ALJ
Bradley Field
Jack Dahl
Val Washington
John D'Amato
Carrie Friello
Kathy Sanford
Linda Clark
Randy Nemecek

REPORTED BY: Danielle R. George
ALJ: Good evening, this is a meeting about the subjects that the Department of Environmental Conservation will be including in its Supplemental Generic Environmental Impact Statement on its oil/gas and solution mining program.

My name is Susan DuBois. I work for the DEC's Office of Hearings and Mediation Services in Albany and I have been assigned to conduct the meeting tonight.


This evening's meeting is for the purpose of receiving comments on the DEC's draft outline of the subjects that should
be included in the Supplemental Impact Statement. The outline is referred to as the scope for the Supplemental Impact Statement and this evening's meeting is known as a public scoping meeting.

Kathleen Sanford from the Department's Division of Mineral Resources will explain in more detail the process and plan scheduled for preparing the Supplemental Impact Statement after I make a couple preliminary announcements about the way the tonight's meeting will occur and an opportunity for written comments.

This evening's meeting is one of several scoping meetings for the public to comment on the draft scope, particularly with regards to identifying any additional information or subjects that should be included in the Supplemental Impact Statement and identifying any subjects in the draft scope that might be irrelevant or nonsignificant in your view.

Following these meetings, the DEC will prepare a final scope or a final
outline and then prepare a draft of the Supplemental Impact Statement. There are a series of meetings, scoping meetings like this one. There was one last week in Allegany, this one tonight, tomorrow night, Thursday, there will be one in Elmira at the Southside High School. Then the following week on Monday, November 17th there's one in Binghamton at Broome County Community College, it's my understanding there will be a webcast of that one, but I was not able to get the details about that before coming out here from Albany. So if you are curious about the webcast, you might see me at the end of the meeting or talk to someone out in the lobby, they might have an update on where you can access that. Then there's two additional meetings that will occur on Tuesday, December 2nd in Oneonta and Thursday, December 4th in Loch Sheldrake.

If you would like to make written comments about the draft scope, those can be submitted to the Department up until
close of business on December 15, 2008. Verbal comments and written comments will be given equal consideration. If you want the address for those, I believe probably the people in the lobby would have that or I have a copy of the notice also if you want to get that from me after the comments.

The comments that you might want to make can also be sent in by e-mail and there is an address for that. You can make comments by e-mail if you would like to and the address for that is dmnog@gw.dec.state.ny.us, which again is in the notice and I can give it to you after the meeting. And if you would like to comment tonight and have not already signed up, the white cards are for people who would like to speak tonight. They also have some blue cards on the table out in the lobby, which if you would just like to make a short comment and submit it tonight you can write it on the blue card and drop it in the box that's out there on the
table. So basically you can make a comment tonight. You could submit a written comment tonight. You can send a letter to the Department up to December 15th or you can comment by e-mail.

After the close of the comment period on the draft scope, DEC will prepare the final scope and then prepare the final -- excuse me, Draft Supplemental Generic Environmental Impact Statement. There will be an opportunity to comment on that draft impact statement once that's prepared. So it's a multi-set process, Ms. Sanford will cover that in more detail when she goes through that.

I believe that's it. Now I would like to call on Brad Field, the director of the Department's Division of Mineral Resources.

MR. FIELD: Thank you, Judge DuBois. Good evening and welcome everyone. Before we get started with Kathy's presentation on the draft scope and supplemental GEIS, I would like to introduce a few people that
have come out here this evening to be with you and to provide information. First of all, I would like to introduce Deputy Commissioner Val Washington, she's the deputy commissioner for Mediation and Materials Management in Albany. Also here tonight we have Paul D'Amato who is the regional director for Region 8 located in Avon and with him also are Randy Nemecek, the natural resource supervisor for Region 8 DEC in Avon and Linda Clark, our regional minerals manager in Avon with the DEC. Also with me tonight are Carrie Friello from the Division and Jack Dahl who is probably out in the hall talking to folks, he's the director of the Bureau of Oil and Gas Regulation at the DEC. So with that, thank you for coming out, we look forward to hearing from you, and with that I will turn it over to Kathy for her presentation, thank you.

MS. SANFORD: Thank you, Brad, Judge Dubois. Good evening, and thank you for being here tonight to give us your input on
how shale gas wells in New York should be regulated by the DEC.

Most of our time tonight will be spent on hearing your comments. First, as has been mentioned, I'm just going to go over a little bit of detail on this whole scoping process, what we're here to do tonight and how it fits in with preparation of the Supplemental Generic Environmental Impact Statement.

This is a public scoping meeting. The topic is the draft scope for a Supplemental Generic Environmental Impact Statement on DEC's oil and gas regulatory program.

I will explain what a Generic Environmental Impact Statement is and I will talk a little bit about the existing Generic Statement that covers oil and gas drilling in New York. Then I will go over some more about the objectives of the scoping process after I talk about why we are preparing a supplement to the Generic Statement. Then I will conclude with a few
of the key points that are in the draft scope that was released by the Department in early October, many of you have read it, we have copies of it here tonight as well.

A Generic Environmental Impact Statement is a way to look at the potential environmental impacts of separate actions that have common impacts. Most of the environmental impacts or potential environmental impacts of drilling an oil and gas well are the same no matter where the well is drilled, no matter how deeply it is drilled and no matter whether it is drilled horizontally or vertically.

An individual site specific environmental impact statement is not necessary unless a proposed well has unique or non-generic characteristics. The Generic Statement that covers oil and gas drilling in New York that the Department prepared in 1992 is available on the department's website at www.dec.ny.gov/energy/45912.html.

Even with a Generic Statement in
place, DEC reviews each drilling
application individually. We look at the
location and the proposed methods. We
determine on a site-specific basis what
permit conditions are necessary to protect
the environment. If everything is
consistent with the Generic Statement, then
there will not be significant environmental
impacts.

We may find that another DEC permit
is needed for the project, such as stream
or wetland disturbance. If this is the
case, then we must consider that before we
can determine the significance of any
potential impacts. Further review is
required for any well proposed in state
parkland, and, likewise, if the activity
will disturb more than two and a half acres
in an agricultural district. DEC must
further evaluate any proposal to drill
within 2,000 feet of a municipal water
supply well.

There are other circumstances that
could arise which require additional
review. For example, the 1992 Generic Statement does not address drilling near underground water supply tunnels. On the other hand, the generic statement does cover drilling in watersheds and aquifers.

Many, but not all, aspects of shale well development are covered by the existing Generic Statement. Many of the effects will be the same from well to well no matter where the well is drilled. For these reasons, DEC will prepare a Supplemental Generic Environmental Impact Statement to address the new potential common impacts. I will refer to that tonight as the supplement. Most of the new potential impacts relate to the large fluid volumes that will be used for high-volume hydraulic fracturing.

We have reviewed the use of the Generic Environmental Impact Statement and the need for a supplement. So now I will talk about the reason we are here tonight. This is a scoping meeting. Scoping is how we determine the topics that will be
included in the supplement. DEC has scheduled six meetings like this across the Southern Tier and Catskills. At these meetings DEC is receiving comments from the public. You may also submit written comments later and I will say more about that. We will consider your comments before we finalize the table of contents for the supplement.

The first objective of scoping is to identify the potential environmental impacts of the activity. The activity that we are reviewing now is high-volume hydraulic fracturing. DEC has identified some potential impacts. One example is the visual effect of larger well sites. Another is the noise from fluid pumping. Large water withdrawals can have various effects. There are more listed in the draft scope.

A second objective is to identify any concerns that are insignificant or irrelevant, those can be left out of the supplement.
Third, scoping will help us identify what additional information DEC needs to complete the supplement. One example that is mentioned in the scope is the results of radioactivity testing of the Marcellus Shale currently underway. Another is information about the composition of the additives in hydraulic fracturing fluid.

The fourth objective is to identify ways to minimize impacts. This includes any available alternatives to the proposed activity.

Finally, scoping is the way that DEC gets your input on these topics. That's why we are here tonight.

The scope is like an outline or table of contents for the supplement. DEC prepared the draft scope so that you could comment on our ideas. We included background information so that you could learn about gas well drilling and how the DEC regulates it. We have copies here. If we run out tonight, we can send you one if you give us your mailing address. And it's
also on DEC's website at

So that brings us again to the
purpose of tonight's meeting. We are here
to take your comments on DEC's draft scope.
Your input will help DEC prepare a final
scope. The scope will serve as the outline
or table of contents for the Supplemental
Generic Environmental Impact Statement.
Now I will briefly describe the key points
in the draft scope.

High-volume hydraulic fracturing is
not adequately covered by the existing
Generic Statement. The supplement will
generically address the common impacts of
this activity. Nevertheless, we will
continue to review each proposed well
individually.

One well at a time, DEC will
determine consistency, or lack thereof,
with the Generic Statement and the
supplement.

One well at a time, DEC will identify
unique concerns that require other permits
or changes to the proposed activity.

Last but not least, DEC will make sure that every single permit includes the necessary requirements to protect the environment.

One activity not addressed by the existing Generic Statement is the taking of water from surface water bodies. This could potentially affect stream flow. Taking too much water at the wrong time could reduce how much is available for public supply. DEC must consider the water needs of fish and wildlife. We will evaluate all of these concerns in the supplement.

The draft scope discusses how hydraulic fracturing has been managed under the existing GEIS. DEC will use the supplement to evaluate unique issues related to shale gas development. An example is high-volume fluid storage at the well site. Another is transportation of the fluid to and from the site. Others are the available options for fluid reuse,
treatment and disposal. I encourage you to look at the draft scope for a more complete list of the topics DEC is reviewing.

The activities and facilities I just described could affect the environment in several ways. These are explained in Section 4 of the draft scope. Without appropriate controls, the activity could affect water resources. Noise and visual effects will occur. They may be potential air quality impacts. Trucks will haul water on local roads. The supplement will also discuss cumulative impacts, impacts to communities and environmental justice concerns. We expect that you will have many comments on potential impacts tonight. Your input will help us refine the scope before we make it final.

The supplement will answer these questions about high-volume hydraulic fracturing: What are the potential impacts and how can they be minimized or avoided? When will the Generic Statement and the supplement together adequately support
issuance of a well drilling permit? When will DEC require a site-specific supplement?

DEC expects to release a final scope in early 2009. This will be followed by a draft supplement in spring 2009. We will publish a notice when the draft is ready and there will be an opportunity for public comment on the draft supplement.

DEC hopes to finalize the supplement by summer of 2009 and then at least 10 days after the supplement is finalized, DEC issues findings. These findings will guide DEC's environmental review of individual well permits from that point forward.

DEC is here tonight to encourage public participation. You may provide verbal or written comments on the draft scope tonight or at one of the other scheduled meetings. You may submit written comments until December 15th. And you will also have a chance to review and comment on the draft supplement next spring.

Please include your name and return
address when you submit written comments. This will help us let you know when the final scope is ready and then when the draft supplement is ready. If you do not have your written comments ready tonight, you may e-mail them to us at dmnog@gw.dec.state.ny.us. Please use scope comments as the subject heading. Send the e-mail before the end of the business day on December 15th.

You may also mail your comments. We need your mail to arrive in our building by the end of the business day on December 15th. And the address is up there, send them to the attention of scope comments. Send it to the Bureau of Oil & Gas Regulation in the NYSDEC Division of Mineral Resources. That's at 625 Broadway, Third Floor, Albany, New York, 12233-6500.

We look forward to hearing your comments and I will turn it over to Judge Dubois.

ALJ: Thank you. About 12 people have signed up to speak thus far. If you
decide during the meeting that you would like to make a statement, you can get one of the cards that's out in the lobby and give it to the person out there or there is also some cards on the corner of the piano there, you can sign up and give your card to me.

The first speaker will be Bill Dibble. Come to the front, there's a microphone there.

PUBLIC SPEAKER: Thank you. I spoke at the Region 9 hearing over at Allegany Limestone High School, I want to give you a couple of additional comments. First the Devonian Shale, I would like to see the commissioner grant us a frack variance. The county needs the income. This oil was found in the southwest part of Steuben County, West Union, Allegany County south expressway, Cattaraugus County around the border. Support us to get this done, so I appreciate if the DEC would really address that.

I have three comments on the
Marcellus Shale. The first thing I would also like the DEC to encourage, once we have the public hearings done, the input from the industry and the people in the county and state rather, that this also be pushed along a little bit, you know, the state's in a budget crisis. We would like income coming into the state and taxpayers once we get some drilling on the Marcellus. I would just like the procedure to move along so we get the permits faster in industry.

The same bill was signed by the governor in October, the industry has totally left the state, and maybe other ones have left. Once you get this in place and drilling industry proceeds, it takes some time to get the permits through and the geophysical work done. You need large rigs to pull the pipe in and out, it takes time to get the rigs scheduled to come back to New York State. So hopefully this will move forward and bring back money in New York State to help offset this forthcoming
deficit the folks in Albany are working on.

The other thing I want to mention to you, Allegany County has -- I'm vice chair of the county board by the way. Allegany County has 55,000 acres of DEC forest land. We would like to partner with the state, we have 2,000 acres of forest land here and there, most of it is state land and if you think the operation in this oil and gas, the oil wells take a very small location. Think about the gas wells. If you stuck the well drilling as, it's called a platform, takes a lot more area. Once these platforms are built and the well is drilled, then you go back to a small area for the completed well, I'll call it a formation.

So we would like to partner with the State DEC, Allegany County, to use our state land as a platform, figure out the formula on the state land for the horizontal drilling and maybe get the cost down, use our land for the big platforms, the state is stripping a lot, a lot of
management area and also DEC forest land.

Just to comment on Allegany State Park, largest park in the state, it's over in Cattaraugus County. Mike Majikowki was there, the director, at the last meeting a week ago. Another division of the state park plan, some time ago they talked about a storage field in the state park and a new road coming into the park off Route 219. Suggest that the state will be up to speed with it, putting this road in with the industry, have an access road to the pipelines in and in the plan they were talking about was additional cabins through the park. You can take these platforms once they are done, developed by the industry and scale back to use those platforms for the park. That's something for the DEC and the parks to take a look at. Thank you.

ALJ: Thank you. The next speaker will be John Holko.

PUBLIC SPEAKER: Thank you. My name is John Holko, I'm essentially here on
behalf of the Independent Oil & Gas Association in New York.

I wish to provide a number of comments with regard to the draft scoping document for this supplemental GEIS relating to natural gas well development project.

By way of introduction, the Independent Oil & Gas of New York, Association in New York is a trade association founded in 1980 to protect, foster and advance the common interest of oil and gas producers, professionals and related industries in the State of New York.

I'm presently the secretary of the association and am president of Lenape Energy, which is a parent company with a group of energy companies including Lenape Resources, which explore for, drill for and operate oil and gas wells in New York. Our headquarters are in Alexander, New York and we have been operating in New York for 30 years.
I have a degree in petroleum engineering from Pennsylvania State University and started my career in the energy business as an engineer for Halliburton Services in Bradford, Pennsylvania.

I've spent 28 plus years working in various aspects of the oil and gas business in the Appalachian Basin, so I feel I'm qualified to make some comments on it.

The general issues relating in the scoping document, we are in full support of the project that DEC is undertaking and believe there are a few issues that need to be addressed beyond the Generic Environmental Impact Statement that's in place.

IOGA New York has reviewed the DEC's existing GEIS and draft scoping document on a point-by-point basis. Our plan is to supply detailed comments in the written section by December 15th.

The review was an effort to determine if IOGA New York concurs with the proposed
draft scope and to identify any area where IOGA New York's analysis may differ from that of the DEC.

Through this process, IOGA, New York determined that the overall scope proposed by the DEC appears to be justified based on potential development of low-permeability gas reservoirs in the state, especially that of the Marcellus Shale. IOGA New York supports the DEC's determination not to reopen the entire 1992 GEIS. I was involved in that process, and trust me, it was very detailed, they did a very good job.

IOGA further supports the DEC's determination to exclude pipeline regulation. The Public Service Commission does a good job, it doesn't have to be involved here.

Additionally, since foam and water fracturing was covered in the GEIS, DEC has determined the supplemental GEIS would focus on large volume slickwater fracturing, and that really is probably the
major change that we're looking at.

IOGA fully concurs with and appreciates the recognition that there has not been any groundwater contamination caused by hydraulic fracturing for gas well development in New York, despite the use of this technology on thousands of wells across the state during the past 50 or more years.

In particular for this hearing, I would like to focus on the issue of fluid disposal. Regarding the composition of spent fracturing fluid, it's important to understand that the material that's added for the stimulation fluid are used to achieve specific goals associated with the stimulation design. The typical components making up less than one half of a percent of this solution are biocides to prevent bacteria growth, polymers utilized to prevent scale buildup, granulated polyacrylamide used as friction reducers to lower pumping pressures and surfactants used to improve fluid recovery. All of
these materials are commonly used in various manufacturing, cleaning and medical products in our lives today. We live in a chemical society, it's all around us.

As the stimulation fluid is recovered after treatment, it will contain some salt strip in the reservoir rock mostly composed of sodium, calcium and magnesium chloride. These salts or brine are more commonly used as de-icers and in food preparation. These are in deed all common substances that are commonly used either in our homes or on our highways and the concentration of fracturing fluid flowback is of a substantially diluted nature as compared to that which is already used in our environments today.

Concerning the reuse and recycling of fracturing flowback fluids, the industry is very interested in reusing as much as they can. In fact, the industry is actively exploring ways to invigorate unused industrial sites to process and reuse fluid. Ultimately, the process of flowback
fluids to be reused as stimulation fluids is in everyone's best interest.

After the disposal well permit and the issue of disposing of fluids underground, there are only three disposable well sites in New York with operation complicated by the overlapping and stringent regulations imposed by both the EPA and DEC who jointly regulate disposal sites. IOGA recommends the more simplified state pollution discharge and elimination systems permit along with better coordination with the EPA-UIC permitting process to allow for simplifying permitting and the use of more underground disposable.

IOGA is intending to have additional comments and I will make comments at tomorrow's meetings, but that's my comments for today.

ALJ: Thank you. Our next speaker will be Scott Rotruck.

PUBLIC SPEAKER: Thank you very much. My name is Scott Rotruck, I'm vice
president of corporate development for
Chesapeake Energy Corporation's Eastern
Division.

Chesapeake is the largest producer of
clean-burning natural gas in the country
and is responsible for more than 150
operating rigs drilling for new reserves
and production across our 18-state
operating area. We also account for
approximately four percent of the natural
gas produced in the United States.

Chesapeake is also the largest
leasehold owner in the Marcellus Shale,
which stretches from New York to West
Virginia, as well as the number one
developer of shale gas in America.

In the State of New York alone, we
have an estimated 1,000,000 acres under
lease which includes the Marcellus Shale
and other prospective formations.

After a detailed and thorough review
of the draft scoping document issued by the
Department of Environmental Conservation,
we believe that the scope of review and
supplementation of the Generic Environmental Impact Statement is appropriately focused. As I have mentioned in greater detail in my attached comments, the overwhelming majority of potential issues associated with low-permeability gas reservoir exploration and production are already addressed by the existing GEIS. This list of potential issues includes, but is not limited to, surface disturbance, noise impacts, visual impacts, habitat impacts, road usage and air quality.

While some new methods and technologies are changing the way our industry operates, many of the tried and true methods emphasized in the existing GEIS continue to provide proper mitigation. For instance, the same noise reduction technologies discussed in the existing GEIS have been employed as necessary in urban or populated areas to reduce noise levels above ambient background noise. Another example are the visual impacts from oil and gas activities. As noted in the GEIS, oil
and gas drilling and completion activities, which are virtually identical for vertical and horizontal drilling, are minor and short term. Furthermore, with adequate planning, such visual impacts can be well mitigated, if not altogether hidden.

I would be remiss if I failed to highlight how the current GEIS addresses the issues previously mentioned and how the advent of new methods and technology actually provide for a smaller impact on the environment than that contemplated and allowed by the existing GEIS. For instance, by placing multiple horizontal wells on a pad, the overall surface disturbance is far less than by utilizing traditional single completion vertical wells. In conjunction with this smaller surface disturbance, there is necessarily a reduced habitat impact in both urban and rural areas. By employing multiple well pads, the number of roads and amount of pipeline required is greatly reduced. This is just one of the ways new methods and
technology help provide clean-burning natural gas and reduce our industry's environmental presence.

In closing, on behalf of the nation's leading producer of abundant, affordable, clean-burning, American natural gas, we strongly urge the DEC to follow Governor Paterson's recommendation regarding the scope of the supplemental GEIS. By doing so, we can expeditiously move forward, working together, to provide economic opportunity in an environmentally and aesthetically responsible manner. Thank you all very much.

ALJ: Thank you. If you have an extra copy of your statement, if you could leave that for the stenographer that would be helpful.

Next speaker will be Walt Franklin.

PUBLIC SPEAKER: My name is Walt Franklin and I'm an employee here at Haverling Central School, but today I'm representing an organization called Trout Unlimited and especially the local chapter
706 which is centered in the Upper Genesee River drainage.

Our concern is that water for hydraulic fracturing is likely to be obtained from surface water bodies away from the well sites including rivers and streams. We feel that the potential cumulative impacts of numerous withdrawals, especially when there is reduced flow in wild trout streams, may have a major impact on fish and wildlife and to downstream wetlands and users.

In addition, we’re concerned about the potential transfer of invasive species from one surface water body to another as a result of water withdrawal and subsequent discharge into another surface water body.

As a case in point, I have photographic evidence of current water withdrawal from a small trout stream called Wileyville Creek near Whitesville, New York, on the Steuben/Allegany County line and very close to the Pennsylvania stateline.
We believe that water there is regularly drawn by gas drillers in nearby Potter County, Pennsylvania. The water has been withdrawn from Wileyville Creek, a major trout stream, from times of low summer flow up until the present moment. We would like New York DEC to address water withdrawals from New York trout streams by an adjacent state.

In summary, we would hope that impacts on aquatic resources be evaluated and that no water withdrawals or water be withdrawn from small wild trout streams, especially during the periods of the low flow.

We would like controls to prevent the spread of aquatic invasive species and those withdrawals of New York State water by out-of-state agencies or drilling operators also be controlled. Thank you very much.

ALJ: Thank you. The next speaker will be Cathy Anderjack.

PUBLIC SPEAKER: Hi, good evening. I
wasn't really prepared to speak, but I'm interested in the companies who are involved in the development and someone, Scott, I forgot your last name, you are from Chesapeake, I'm interested in Fortuna Company and how these companies are related, cooperating or not cooperating and that is my main question, so.

ALJ: Thank you. Is that something you were recommending be dealt with in the impact statement or is that something that you wanted to talk to someone about this evening for your information?

PUBLIC SPEAKER: It doesn't have to be in the impact statement.

ALJ: It doesn't have to be in the impact statement, but you are interested in talking with somebody?

PUBLIC SPEAKER: Yes.

ALJ: The next speaker will be Mark Scheuerman.

PUBLIC SPEAKER: Thank you, your Honor. My name is Mark Scheuerman, I'm the general counsel at Fortuna Energy, so the
last speaker I believe I will have to talk to afterwards. I will make my comments as briefly as I can. Our intention is to make comments here tonight and also tomorrow in Elmira.

Your Honor, Fortuna Energy deeply appreciates this opportunity to provide a statement in connection with the draft SGEIS scoping document and the analysis of the potential environmental impacts of producing natural gas from the Marcellus Shale geologic formation. Of the six scheduled scoping hearings, two are in Fortuna's core operating area within the Southern Tier of New York.

Tonight's hearing and tomorrow's in Elmira are both in that zone and as I said before, I will be making a statement here tonight and a summary of this statement will also be provided in Elmira.

In addition, Fortuna would very much like to recognize the DEC department staff, both in Albany and the Region 8 office in Avon, for their tireless work on behalf of
the citizens of New York. They have the important task of guarding the public interest with respect to the greater ultimate recovery of oil and gas, as well as the protection of our treasured natural resource.

The proper balance between these two important goals is something all of us strive for every day and since 2002 it has been our privilege to work with these dedicated professionals during Fortuna's exploration and development of the Trenton-Black River formation. And we look forward to doing the same in the Marcellus Shale formation at the soonest possible time.

Some of the areas that I would like to talk about tonight could easily be summarized by the socio-economic impacts, the water and fluid handling and the overall community impacts. But beginning with the economic benefits, as New York State's most successful natural gas exploration and development company,
Fortuna Energy annually accounts for about 70 percent of New York's total natural gas production.

In 2007, Fortuna commissioned an economic impact study to analyze its economic impact in the Southern Tier of New York State. That study was carried out by Penn State professor of Natural Resource Economics, Tim Considine.

Dr. Considine's study focused on Fortuna's annual impact in the eight county area of New York's Southern Tier region. That study revealed that Fortuna's operations have $90.4 million in total annual economic impact, including a direct spending stimulus of more than $64 million resulting in the equivalent economic impact of more than 730 new full-time jobs.

With the prospect of annual spending in pursuit of the Marcellus Shale in NY being many, many multiples of this level of expenditure, it is fair to estimate that Fortuna Energy's Marcellus Shale activity could generate an economic impact
sufficient to create many thousands of new jobs in Upstate New York.

Unfortunately, in the face of a much longer delay before drilling permits can be issued following the completion of the SGEIS, Fortuna Energy has been forced to reevaluate its pending projects in New York that contemplate exploration and development in the Marcellus Shale.

Although we applaud DEC Commissioner Pete Grannis' commitment to conclude the SGEIS process at the soonest possible time, there remains significant uncertainty concerning where New York State will be in a position to issue Marcellus Shale drilling permits.

In the meantime, the commercial and business demands facing our company simply cannot wait. Assurances made for an expeditious conclusion of the SGEIS without solid commitments to do so by a specific date, are insufficient to allow Fortuna Energy to commit large amounts of investment risk capital necessary for the
development of the Marcellus Shale in New York at this time.

Thus, until a final SGEIS is completed and reliable drilling permits are able to be issued based on that final SGEIS, Fortuna has redirected all of its Marcellus Shale efforts to Pennsylvania and halted all leasing activity associated with that formation in New York.

During this delay, New York is facing the loss of tens of millions of dollars of direct economic impact stimulus and is forfeiting the opportunity to create thousands of new jobs at a time in our state's history when they have never been needed more.

Moreover, this risk also extends to the long-term viability of New York as a desired location for Marcellus Shale development as operators face the expiration of contiguous land positions into fragmented holdings that will be commercially unattractive for many years to come.
During combined testimony recently presented to the New York State Assembly Committee on Environmental Conservation by the American Exploration & Production Council, American Petroleum Institute, IOGA-NY, Independent Petroleum Association of America, International Association of Drilling Contractors, Petroleum Equipment Suppliers Association and the US Oil & Gas Association, it was stated that New York has an existing structure for the regulation of oil and gas development that has served the citizens of New York for many years.

The testimony went on to state that through its regulations, the DEC has imposed a number of requirements on well operators that are designed to protect all groundwater aquifers that might be used for drinking water and to minimize any other environmental impacts that might be associated with the exploration, development and production of natural gas.

These requirements include the need
to obtain a permit from the DEC prior to engaging in any drilling activities and related requirements with respect to well design and construction using techniques such as casing and cementing to protect groundwater aquifers as well as handling materials related to well drilling and production.

Fortuna Energy agrees full-heatedly with these statements and repeats them here today for the benefit of this proceeding.

In addition to these requirements, the bill recently enacted by the NYS Assembly and signed into law by Governor Paterson, extends well spacing and setback requirements to horizontal wells that may be drilled in the Marcellus Shale. These well spacing and setback requirements will minimize surface disturbances associated with well drilling consistent with efficient and effective recovery of the natural gas resources in the Marcellus Shale.

In short, the DEC already has one of
the most robust and rigorous programs in the nation for the regulation of natural gas drilling and production activities designed to protect drinking water supplies and other natural resources. This regulatory program has been successful and in our view, is quite capable in its current state to effectively address drilling activities in the Marcellus Shale.

With respect to water withdrawals; recent studies that have examined the potential impacts of hydraulic fracturing operations of drinking water wells have concluded that there is simply no persuasive evidence that any of the thousands of hydraulic fracturing operations that have been conducted throughout the county have contaminated drinking water supplies. Separate studies conducted by the US Environmental Protection Agency and the Ground Water Protection Council have each confirmed that contamination of drinking water supplies is simply not a credible risk.
The draft scoping document recently published by the DEC also states that there is no documented instance of any groundwater contamination caused by hydraulic fracturing for gas well development in New York, despite the use of this technology in thousands of wells across the state during the past 50 or more years.

Thus, it is Fortuna Energy's position that there is no material risk to groundwater or drinking water supplies related to the exploration and development of the Marcellus Shale and any delay in the responsible and balanced development of the Marcellus Shale on this basis is unfounded.

Another serious item of debate is the safe handling of the fluid which flows back after a drilling operation. Fortuna considers the containment of this fluid to be a closed system from the point the fluid is injected into the well to the point it is disposed of at regulated waste water disposal facilities.
The volume of fluid that returns within approximately two to four weeks of the hydraulic fracturing amounts to approximately 50 percent of the injected fluid.

This fluid is contained in either steel tanks or, in some areas, a pit that has been lined with a heavy rubber membrane. Through repeated use, these options have proven sound with little or no material surface spillage or leakage.

The contained fluid must then be disposed of and there are three options which can be considered. One is disposal into deep subsurface zones thousands of feet below any existing fresh water aquifers. The second is water desalination with methods that are well known within the natural gas industry. The third option is transporting the fluid to commercial state and federally-regulated disposal sites, which is the predominant method of disposal utilized by the industry in NY and PA.

Further explanation of the waste
disposal option is as follows: The fluid is transferred by truck or rail to the disposal sites. Sampling is done ahead of time and checked with the operator of the facility to ensure the fluid can be accepted and will allow the operator to stay within the EPA permitted operating range. The flowback fluid is largely comprised of salt water but has very trace amounts of other items such as calcium, magnesium, manganese and barium that are all well below regulated safe exposure limits.

The method of treatment by the disposal facility is through the settling out of any sand or shale solids which may be in the fluid and the dilution of the remaining saline water which is then able to be returned to the watershed at acceptable dilution rates, usually in the order of 0.02 percent or two gallons of waste water per 10,000 gallons of water flow.

In New York State this type of
discharge is referred to as a point source discharge and requires a permit through the state program known as the State Pollutant Discharge Elimination System or SPDES and is much less impactful than non-point surface pollution such as urban runoff, leaking underground tanks, agricultural runoff, landfill leaching and road spread from highway salts and other topical treatments.

With respect to other environmental impacts including road use, it is important to note that being a responsible and welcome member of the communities in which we operate has been a primary goal of Fortuna since our arrival in New York in 2002. Our reputation for honest dealings and integrity is important to us and through Fortuna's continual communications with landowners and other stakeholders, we have developed a strong working relationship with many in our community. Whenever possible, we schedule road use around important activities such as school
programs, bus schedules and community events, paying particular attention to the mitigation of traffic and road congestion.

Additionally, we work well ahead of scheduled road use to implement agreements with local authorities covering the reclamation of any negative impacts.

In addition, Fortuna meets or exceeds state and federal environmental protection standards and takes great care in maintaining safe, clean and secure job sites.

Our detailed well site reclamation process ensures that all property is ultimately restored to equivalent or better condition than when our operations began. We also restore private roads when required and provide resources to municipalities for the restoration of roads used by Fortuna.

In 2008, in anticipation of a long-term Marcellus Shale exploration and development, Fortuna established a dedicated unit made up of Fortuna employees whose full-time job is to work well ahead
of the drilling and development stage for each well. Their activities are devoted exclusively to working with communities and stakeholder groups to anticipate and plan for temporary impacts from Marcellus Shale operations and are carried out in furtherance of Fortuna Energy's Good Neighbor Program, the details of which can be reviewed on our website at fortunaenergy.com.

To conclude, in light of the existing regulatory structure in New York with respect to oil and gas drilling, as well as the nature of hydraulic fracturing and the conditions under which it occurs, Fortuna Energy believes that adequate regulatory protections are already in place with respect to oil and gas operations in New York.

Development of Marcellus Shale gas resources can and will be undertaken in a way that allows development of this important energy resource in a manner that will not result in any contamination of
drinking water or other adverse effects on the environment.

Further, our commitment to working with communities and other stakeholders to limit the temporary effects from Marcellus Shale operations should be a model that industry associations and individual operators adopt and implement right now in New York State.

We commend the DEC for their limitation of the scope of the SGEIS process currently underway and urge those who would seek to expand or attack this approach to be mindful of the great price New York will pay in the form of lost economic opportunity if further delays occur. Thank you very much.

ALJ: Thank you. Our next speaker will be Carol Robinson.

PUBLIC SPEAKER: I'm Carol Robinson. I work for Precision Pipeline. My concern, and I only found out about this meeting this morning, so I would like to apologize for not having a prepared statement like
the people that have preceded me.

We work for both Chesapeake Energy and Fortuna Energy, my concern here tonight is that we're taking jobs out of New York State to Pennsylvania, I would encourage the DEC to expedite, not slow down, what the employment opportunities are for New York State, as well as the revenues that will be lost as the gentleman from Fortuna addressed earlier.

Precision Pipeline is a leading, hopes to be one of the best and biggest pipeline contractors in the United States. We have employed in New York State this year over 1,000 people, either working on the Millennium Pipeline or working for Chesapeake and Fortuna.

Our people have been able to maintain a better lifestyle than they ever dreamed because we're not working four to six months a year, our people will be able to work year-round. When we come into a town or an area, we don't just employ people, we have to rent equipment, we have
to have services, all of this is a social impact and for the State of New York to slow down the process for the revenues to go to Pennsylvania is a great injustice to the Southern Tier area.

For the first time we sit on the edge of changing every person's life in the Southern Tier. I don't know about you, but I feel like we've been left behind for New York City, Long Island, this is our chance now, I think as the gentlemen have said, the DEC has done a wonderful job laying out in their first presentation, but to slow down what the potential is here, it's unfair to everyone.

As leaseholders, you do not have to be afraid of the well drilling. It is in fact an impact that will -- I mean, you have to go out and talk to the other people that have had these large fracturing wells done, it isn't as bad as some people think. And as the gentleman from Fortuna said, I just experienced one in Pennsylvania, it had over 100 fracking, 20 gallons each,
people were employed to bring the water in, we have people working around there, it's almost like a 24/7 thing for two or three weeks. Where else are you going to find these types of employment opportunities for people in this area? It's just not going to happen.

So I would really like to suggest to the DEC that you do move it forward and a lot of the things that you're addressing as the gentleman from Fortuna and also from Chesapeake, these people are on top of their game, this is not new. The Marcellus formation exploration opportunities was first started 25 years ago with a grant from the National Science Foundation. Chesapeake is doing work in Texas very similar to what they do here.

Fortuna has been working since 2002. We've been able to increase 100 percent the number of people that have been employed from January to now. The sad part of it is that when we go to Pennsylvania, which we're going there with them, we will reduce
the number of people employed by -- living
and working in New York State by 50
percent. And that is significant, not to
say anything about the revenues that will
be lost when they are not drilling wells
here. I can't imagine how much -- well, as
the gentleman told you from Fortuna, the
amount of money, the economic impact is
incredible, it can double and triple in the
future, but it's not going to happen in New
York State, it will happen in Pennsylvania.

Permits down there are $1,500, they
are $6,500 is what I've been told, I think
New York State gets greedier and greedier
and greedier. Why not put the local
economy in a better position, put the money
back in the pockets of the people that need
it. Golf courses use more water than these
gas drilling rigs overall over a year's
time, so I think that it's important to
recommend, and our people, I'm very proud
of the people that work for Precision
Pipeline, we have one of the best
relationships with the agencies, the Public
Service Commission, the DEC, we work closely with landowners and for all those things are important to keep the economy going forward. The DEC, we support what they're doing here today as well as what Chesapeake and Fortuna have said as well. Thank you.

ALJ: The next speaker will be Wayne Wells.

PUBLIC SPEAKER: Good evening. My name is Wayne Wells, I live in the Town of Cameron. I am not specifically knowledgeable in this particular issue as I would like to be to address a meeting, therefore my comments will be general in nature. I do feel it is very important to bring out two things.

As been the consistent theme of speakers, the economic issues are important and they affect everybody, and while the focus is on the money, I think that the environmental aspects need to be considered in this particular way.

When I moved here back in '72 we
lived very nicely in a little valley until a sludge operator came in, and we didn't do anything to become knowledgeable about the impacts of this.

What happened was we trusted the DEC, and I will tell you right now that there are many good and intelligent people working in the industry and working for the DEC that promulgated regulations that were sensible and intelligible. The problem was when the reality came, these regulations were not being adhered to and being ignored by the DEC. Will this happen with the gas industry? Are there real potential problems? My limited understanding of the Marcellus drilling is that there is new technology in which the drilling will go down and go out horizontally and that this is fairly new. What I urge everybody to please be aware of, that once your environment is destroyed, you won't get it back and your environment is the bedrock and foundation of society and your civilization and your enjoyment of living
here.

The money is real, yes, and I stand
to gain by it because I still own my
mineral rights, but I will tell you right
now, had I known what the impacts and the
lack of making the corporation that
polluted our valley and is continuing to
pollute our valley, the ignoring of the
regulations by the DEC, I urge you all to
form a citizens group among you. And I
would say to the DEC and particularly to
the DEC, should problems arise, what kind
of leverage do we have as citizens and
people living here to address those
problems? Because once an industry starts,
as we have seen with the sludge
entrepreneurs in my area, then you're up
against a real brick wall. The time to
solve these problems are before.

Water is going to be more precious
than oil and gas in the future. And make
no mistake about it, once it is polluted.
Then you're not going to get it back. And
as the fellow who belongs to Trout
Unlimited, and I'm not a fisherman, I think he has a very good point. We need to know how much volume of water is going to be out. Are there other drilling using the current technology which is going to be used in our area? Are there models by which we can make better assessments as to what the real impacts are? Because I will guarantee you that when things look really good on paper, they don't always work out that way when the operation is in hand. And I think that a lot of the threats, don't forget when the economy is going down now, what's happening to the price of oil, it's going down. And this may well be a bigger factor in the stalling of drilling for gas now than what you might have heard, I don't know.

But please pay attention to your environment because we know from our experience and it is continuing since 1987 that the DEC, as a matter of fact I renamed the DEC the Department of Environmental Conspiracy because of their lack of making
the industry do what it should be done by
the DEC regulations that were put in place
to supposedly safeguard our environment.
Who is going to be in charge of watching
over what the discharge of that water is?
You can have a regulation, and if it
doesn't meet the reality of what the rights
say, then what good is it? It's a piece of
time that's about it.

We witnessed many instances where
regulations involving the sewage coming
from the bass sewage treatment plant where
they had supposedly monitors and the
monitors would break down in the middle of
the night and industrial waste would get
magically passed through and it went into
the waste that was dumped into our streams
and illegally spread onto lands around our
property.

The DEC largely ignored this until a
small group, including myself, went to
testify in Albany against them, and we had
to do videotape of illegal activity and
threaten to go to the Attorney General's Office in New York State to prevent the abuses. We got some success, but not complete, but think about it. Thank you.

ALJ: Thank you. The next speaker will be Dan Henning.

PUBLIC SPEAKER: I hope that the DEC regulates these people so that we don't have what the last gentleman just talked about.

I hope that what's going to happen with these new regulations goes about in a very timely and expedient manner. There is a lot, I'm a landowner in Prattsburgh, I have seen two horizontal wells drilled, one about a mile from my property and the other about a half mile, and I've got to say, the people came in, set up, did a very good job and when they left, they cleaned up. And there's a gravel pad, there's some tanks there and the rest of the ground was all seeded down. I haven't seen in my own, and as I say, one well is about a half a mile from my property, the other is about a mile
from my property, I haven't seen things
dumped or things left unattended.

I think the DEC and the contractors
that were there were, did a very good job.
There's going to be a lot of money for
people that have property in the Southern
Tier, so there will be jobs for people. So
we have to hope the DEC keeps track of all
the people and makes sure they do what's
according to the regulations are, but in an
expedient manner so that people can go to
work and there can be tax money coming into
Steuben County, Allegany, the whole
Southern Tier to help defray cost that the
taxpayers are paying right now.

So basically from my own view of
watching two wells, horizontal wells that
were in Trenton-Black River, and I've been
told do not use as much water as the
drillings in the Marcellus, I have no
problem at all with what I saw and how they
were cleaned up and with the well heads in
operation. Thank you for your time.

ALJ: Thank you. The next speaker, I
believe it's Gene Stolfi.

PUBLIC SPEAKER: Hi. My name is Gene Stolfi, I'm a member of the Finger Lakes Chapter of Sierra Club. An article in today's Leader I believe.

Basically what I want to say is 20 percent of the fresh water in the world is located in the northeast quadrant of North America. And the river valley between these mountain ranges charge the aquifers to provide drinking water to the entire east coast of the USA.

The interest in this Marcellus Shale formation and fracking process, river water and chemicals injected under high pressure into this formation to separate the layers of shale is a potential threat to these aquifers. Now, it's natural for landowners to want to receive gas money, I have profited myself that's on the lease. And our society needs fuel to continue a lifestyle. The gas companies are really good at what they're doing getting gas. And the only hope that we have to ensure
that our most precious resource, our water supply is safe, is state and federal government agencies.

These agencies must focus on preserving the supply by recording baseline studies documenting contaminants in the aquifers. Many small towns and cities do this already, so the database is already started, Elmira, Bath, Binghamton, whoever has wells has to publish the contaminants in their wells, all the data is out there already. This data must be monitored and added to, so any changes in the contamination can be detected early and hopefully corrected. The groundwater moves very slow but continually in these aquifers, these underground rivers. And in the absence of government protection, the last resort may be the legal system, homeowners near areas that are being developed and rely on well water to drink, may want to have their water tested by a reliable lab similar to the tests the towns do to document their water contaminants.
And early test results compared to later test results, after your well is contaminated, will help your chances in handling an attorney to compensate you if there's a problem.

Now, one of the previous speakers, that was my written statement, one of the previous speakers mentioned that we live in a chemical society, this is true. The United States is probably the most aggressive chemical society in the world. We have the highest cancer rate, I wonder if there's a tie-in.

And the second thing is, if the DEC or some agency can put together some kind of a plan where landowners maybe pool their resources and landowners could have a place to go to have their water tested baseline, just to have that in your back pocket just in case. That's all I have to say.

ALJ: Thank you. The next speaker will be Rachel Treichler.

PUBLIC SPEAKER: My name is Rachel Treichler, I'm an attorney from
Hammondsport. I've been looking into the health and environmental impacts of the gas drilling in our area for a couple of years now, and I would like to make several comments about the proposed draft scoping document.

    First I would like to urge the DEC to actually open up the GEIS, the original 1992 environmental impact review process because something very significant has changed -- well, several very significant things have changed since that review was done. One of which is the federal government has now exempted oil and gas drilling from the federal environmental laws. So the federal Clean Air Act, the federal Clean Water Act, the federal Drinking Water Act, the Storm Water Act, there's a number of other federal laws now exempt, oil and gas drilling. So we are really relying on the DEC and our state regulators, also on our local governments. And as landowners you are relying on the terms of your leases to provide protection
from the contamination that can occur from oil and gas drilling.

We've been told about the economic benefits of oil and gas drilling, and of course there are a number of benefits, but there are also costs and the question that we really need to ask ourselves, do these costs outweigh the benefits? And that is why I think that we are lucky that the DEC is taking the time to look at and weigh these issues and we have the opportunity to look at the experience of other states, states such as Pennsylvania where they are really going forward on a faster track and there is already some examples of the experiences that landowners have had in Pennsylvania, I don't know if people have been looking on U-Tube, but there are videos that show the consequences and we also have the opportunity to look at what's happened out west because drilling the -- hydraulic fracturing has been used in a number of states out west. It's not always in a shale formation, they are using
similar techniques for coal and other types of mining, not gas production, but there are states, Texas and Louisiana where they are using this technique in shale and there's a lot to learn from their experiences.

I would really recommend a film, a documentary film that's been produced by a group of landowners in, on the western slope in Colorado, about their experiences. The film is called Rural Impact and you can see it on U-Tube in different sections and it gives, one of the things that's addressed in that film is the economic impact. There are the benefits, there are increased jobs, there are increased tax revenues, but there is a lot of infrastructure costs. Road maintenance for all the trucking that's being done on the roads. A lot of new -- paying for new schools, new hospitals. So they actually say that the increased infrastructure outweighs the economic benefits.

Another reason to reopen the GEIS is
because there was not a very in-depth consideration given in the original document to some of the issues that arise with the use of the aquifers and with the study of chemicals that are used in the drilling operations.

More recent studies of the chemicals have shown that there are a number of impacts from the different chemicals used in oil and gas drilling. Somebody mentioned previously an EPA report that's been done on fracking fluids, I would encourage people to read this study of the EPA, this is an analysis of the EPA study done by the oil and gas accountability project. It's called what EPA and the Oil and Gas Industry Don't Want Us to Know about Hydrofracturing. Our Drinking Water is at Risk.

In this document, I assume that the DEC is studying this document, but one of the findings here is that the fracturing fluid can move out of the target formations. So that's another area that
needs to be studied, reopened and studied further as the use of the surface disposal pits, again there's a lot of information from out west about soil and water contamination from these pits. And in New Mexico and Colorado, I know the DEC said they don't have any examples of groundwater contamination in New York, but there are a lot of examples from other states. And I don't know if that's -- you know why it would be that there is less in New York, it may be that we have not here had the intensity of hydrofracturing which uses so much more water than the previous techniques that have been used here.

As the draft scoping document says, hydraulic fracturing has been used in New York for a long time, but not the high volume. They made the comparison between 80,000 gallons in the well and the two million gallons per well. So this I think gets to the point that Gene Stolfi was making about the impact on the fresh water resources that we have in our area. We are
very blessed to have, you know, huge fresh water resources. Right now water resources are not regulated in the same way that oil and gas resources are regulated.

For example, the state environmental law gives landowners rights to their oil and gas that's under their land; there is no comparable laws that gives you right to water, to the water in the area. So right now people are, different industries are being able to take millions and millions of gallons of water and pay no compensation to anyone for taking these resources. So what really needs to be added to this supplemental GEIS is an in-depth consideration of what the impact of this amount of water withdrawal will have on our area. And we can see in the estimates of the number of wells that might be drilled, you know, it's several thousand wells per county. The Susquehanna River Basin Commission has estimated for every 1,500 wells, it would take about 28 million gallons of water. And I think that is
really a low estimate, but they say that 28 million gallons of water is about the amount of water that's used by a nuclear power plant. But the impact of taking the water from many small streams and lakes and rivers is very different from the impact of taking it from a large lake. And we are talking many counties here, so we're talking a great deal of water use.

And I will be making written comments to provide more detailed information about the chemicals and their health effects.

I just want to read one quote from Theo Colborn, who is a researcher, she is the author of Our Stolen Future, which talks about endocrine disruption and the effect that endocrine disruption have on our bodies. And she lives in Colorado where there is gas drilling going on and in the last few years has been researching the health impacts of the chemicals used in oil and gas drilling. And she's found that in Colorado the different products that are used to drill wells, fracture the wells and
process the gas contain about 278 chemicals. Of these chemicals, 93 percent, she researched those chemicals in the literature and 93 percent of those chemicals have adverse health effects. The other seven percent, she couldn't find anything, just means she couldn't find information. 42 percent of those chemicals were endocrine disruptors. These are chemicals that, endocrine disruptors affect how we're provided -- how our bodies grow, how our thyroid works, how babies grow into adults and sexual differentiation.

Even at very low concentration, these chemicals have a pronounced effect on human health. Sometimes in parts per trillion in water. So when we're talking about millions of gallons of water, even though as the DEC says, 99 percent of the fracturing fluid is just water, we're talking about millions of gallons, that is a lot of other chemicals, there's a lot of room there for a lot of these other chemicals that have impacts in variable
quantities. And she said of the 124 soluble chemicals used in gas, 88 percent cause damage to the skin and sensory organs such as the eyes. 75 percent leads to respiratory damage and 45 percent cause neurological damage, others cause immune disorders and are linked to diseases such as lupus. And one of the troubling things that she said is that we do not have -- there not yet have been developed methods for taking these chemicals out of the water. So it is good to have these closed systems where, you know, they are not taking always fresh water, but if there is no way to take these chemicals out of the water, then we are building up higher concentrations.

I think it’s also of concern to hear that only 50 percent of the water that is used is actually able to come back out because that means that 50 percent with these chemicals is still in, is still underground able to contaminate groundwater. Thank you.
ALJ: Thank you. The next speaker will be James Trondsen.

PUBLIC SPEAKER: My name is Jim Trondsen, I'm a long-time resident of Painted Post, lived in Pennsylvania some. But came back to this area with my family a number of years ago because of quality of life here. And that's the main thing that I want to address, you can't put a dollar value on what your quality of life is.

There's an organization called the Finger Lakes Institute, it's located up in Geneva at the college, they did an estimate of what the value of having our beautiful Finger Lakes in this area, the economic value, this is all verified by New York State and everybody agrees on this figure and it may even be low by now because it's an old figure, $2 billion a year, that's how much it's worth to us to have these lakes and beautiful rivers, trout streams, clean water. And the Cohocton is one of the highest water quality rivers in the whole state. Despite the fact that we've
got pretty good sized population and a lot of agriculture and communities along the way. And the systems in place that keep that clean are the people that live long, take care of what they do to it, what they may put into it, they think before they do something.

Also nature has a way of healing itself and filtering out the bad stuff that can do us harm. The aquifers that we get our drinking water from largely are that way too. So we really have to protect that. And when I think about hydrofracturing, the name itself is provocative. Fracturing, what fracturing means is you are breaking something up. You're practically exploding it. You are taking it and busting it into millions and billions of pieces.

Now, the example that was brought up earlier of Pennsylvania, I lived in the state, it's a terrific state, but they've made some mistakes along -- in the past. They've done a lot of mining in the way of
coal mining and it provided jobs and it
gave them a start, but now they're paying
the price. They are paying a real heavy
price. This is the number one
environmental problem in the State of
Pennsylvania is acid mine leakage and what
we've done is we've gone down and we've
messed with this subsurface in a way that
screws up the systems that are there in
place to make sure that we have clean
water, clean air, and all of that. And in
Pennsylvania there is some areas that will
just never be the same, the impact of the
pollution that has been caused by that is
enormous, it could never be taken care of.
You couldn't even place a dollar value on
it.

So I think, I live right over an
aquifer, I looked at the maps out there, I
was interested in what the DEC's maps
looked like, I never realized it was over
one of the premier aquifers in this part of
the state. But I would hate to see that
contaminated forever by some ill-conceived
hastily put together, get-rich-quick scheme
that's going to put us at risk and have an
extremely high price to us and for
thousands of generations to come.

We have to think about this. And I
think that's the sum of my comments, but as
I hastily read over some of the DEC
documents and written commentary on the
EPA, it looks to me as though a lot of the
comments in those reports are put in there
by lobbyists and what we've got to do is
make sure that this stuff -- that what's
going on is right for us, for here, for our
quality of life, for what we've got in this
area. So thanks for your attention.

ALJ: The last person that has signed
up to speak is Nicole Gwardyak.

PUBLIC SPEAKER: My name is Nicole
Gwardyak. I'm the leasing negotiator
working with Steuben County's Coalition.
We represent roughly 135,000 acres and 900
individuals.

We have held a series of 12 public
meetings addressing the leasing aspects as
well as the impact aspects of natural gas development.

Our position is, we would like to be able to work as a partnership with oil and gas industries and promote responsible gas drilling. There's a lot of things that we can take care of within a lease and there's a lot of things that we cannot and this is where we look at the New York State DEC to encompass what we cannot take care of within a lease. And although you do hear horror stories of what things are like in Colorado and Oklahoma and out west where drilling has been more predominant, you have to make sure you are comparing apples to apples. Are their regulations the same regulations that New York has in place? And in fact they are not. There are states that have drilling -- that have virtually no regulations for the liners and/or the pits. But that is something we, as a group, for the landowners' coalition would request the DEC to look into. It is how those materials are handled and stored on
the surface.

I think some of the misconception, because I keep hearing over and over, there has been no hydrofracking water contamination and we as a coalition, through our experience of meetings, in this area have somewhat diminished that as being a primary concern. The larger concern is actually ground contamination and ground contamination that can happen during the reclamation and the clean-up process as well as when the hydrofracking fluid are being stored on the surface.

We would also like the DEC to try to address within the GEIS scope is a partnership within the agencies themselves. I've been to many of the DEC's meetings and the continual answer is, that's handled by the solid waste, that permit is done by another department, and if there is going to be a network between or within the agencies so that this is a smooth flowing, the left hand knows what the right hand is doing operation. And is there a
partnership established with the SRBC?

In trying to promote responsible drilling in New York State, one of the issues is not only the GEIS report, but then how often does the SRBC meet? Which the DEC, I understand, does not have any regulation over that, but is there going to be some type of a system set up when those meetings happen so that permitting and all the subcontracting that has to be done to line up drilling sites, how much of a partnership is there going to be between the two agencies to make sure that when this is up and going that it's not hurdle after hurdle after hurdle. Because we are not like the Barnett Shale, we are not in a tiny, cute little concentrated area where they are going to fight over our acreage. It's in western -- or Eastern Ohio, Pennsylvania, New York, West Virginia, we're not the only game in town. And although we have a lot of resources that we need to protect such as our water, we also have people, just in our coalition, that
they are not too worried about the water they are going to drink, because they don't have a job and they don't have any money and they are willing to pretty much sign their life away for a lease that they feel is fair and equitable. But we would ask the DEC to do this in a timely, kind of correct fashion, because this is the only time in essence to do this right.

We, as a coalition, have also sent letters to Governor Paterson urging that he provide, and I know he's going to say there's probably not a dime available anywhere, maybe he can borrow some from AIG now, that the DEC needs to have staffing and they need to have the resources and they need to have the qualified individuals continue with this evaluation and we, as New York State, need to make sure that those resources are available.

There's a lot that we do have question and concern with. And the SRBC and the amount of water, I hadn't intended to say anything in regards to that until it
was mentioned earlier, I had gone to a conference in Binghamton, the conference of mayors in which the SRBC spoke and information at www.srbc.net has a graph that shows how much the calculated gas drilling water is expected to take.

He explained at that meeting, the way they came up with that calculation is took the Barnett Shale, multiplied by two and that would be the general estimated water consumption use. The difference on the Barnett Shale, is the Barnett Shale is a much deeper formation which actually even requires more water than the Marcellus Shale is going to take. And one of the things that's not ever publicly, you know, mentioned or made issue of is recreation has more consumptive water use than gas drilling operations are expected to take. But I don't hear anybody complaining about their 18 hole round golf and how much water it takes to keep those greens in condition.

So, yes, there are concerns, but you do need to do your own research, and see
what is hype and what is real. Because a lot of what is hype right now in the media is the hydrofracking and the amount of water. When you look at that in the big picture of everything that is going on, and the other thing that the media does not cover is what is going on and what is going right. And I'm sure DEC can correct me if I'm wrong, but there's over 13,000 wells in New York State, and how many do you read about? Was there an article in today's paper about any one operating well in New York State? And if you ask me, that's a good indication that our DEC is doing their part at this time to make sure they are protecting our environmental life and our quality of life here in New York. Thank you.

ALJ: Thank you. There are three more people that would like to make a statement. First person is Michelle Fawning.

PUBLIC SPEAKER: Hello, my name is Michelle Fawning and I'm a postal worker in
Hammondsport and I work at a health store in Bath. I'm sorry I don't have a prepared statement to read, but I'm still familiarizing myself with what the issues are with the Marcellus Shale. And I just wanted to take the time to raise a few concerns of mine.

But first I did want to address something that was said earlier by one of the gas representatives about how it's unfortunate that they can't bring income into New York at this time and they have to concentrate on Pennsylvania. The Marcellus Shale is not going anywhere, it's been here for a long time, we've always known about it, no one just discovered it. And they want to get into it, so I really encourage the DEC to move as slowly as they feel is appropriate, to consider all of our environmental concerns, because once you pollute and contaminate your groundwater, that's it, I mean just like natural gas, that's not renewable, at least not in our lifetime.
One of the concerns I wanted to raise is I understand that the drilling sites are staggered, so it's not going to be necessarily as concentrated as the estimates might say. But one of the problems with staggered drilling is that that construction time period of those trucks coming in, hauling over the equipment, over our local roads, they are not paved, imagine this heavy equipment going through. The water, the trucks coming through, I understand 24/7 they go through, the noise and air pollution from the compressors running. I mean that is going to be accumulated in every way if you're in a concentrated area.

One of the gentlemen that spoke earlier, he is considering because he does retain his mineral and gas rights, I was looking at property that I was considering buying earlier this year, and the gentleman that was selling it said he would be retaining the gas rights. Now, if you were someone who had purchased property and did
not retain the gas rights and someone does sign a lease, I mean I'm just concerned on how the DEC will address how that lease is negotiated and whether your interest as a property owner, as the one who resides on that property, how they will protect it? And what if your well is contaminated? Or your neighbor's well? Where would you go for legal recourse? The gentleman said earlier about baseline testing, I think that's imperative, we have to have baseline testing of our water. I know from looking at what happened out west, people do say their water has been contaminated. I saw images of the woman who drew water from her well and she could set it on fire.

Now, if you don't have any kind of testing where it goes to the legal system saying, this is what our water was composed of before they came and this is what it's composed of now. I mean, one of the statements that was made earlier today in this meeting was that the chemicals that they use are used in all kinds of industry.
It would be very, very easy to make an argument about chemicals could have come from anywhere. And I think that DEC should require this baseline testing of any area where there will be drilling and that that testing should continue throughout the drilling process to safeguard our interest. And residents here who do drink that water and who have children here. And I mean, like somebody else said, the endocrine disruptors, that impacts how the fetus develops in the womb. We have hopefully a growing population here, we want people to come here, reside, to work, it's a beautiful area, it's a beautiful place to live with a young family. We don't want that to change.

Another thing that I would like to raise as a concern, in a documentary that I viewed, the Drilling Colorado, one of the things they stated was that even if you asked those on the drilling sites, they never saw a well inspector, they never saw anyone coming to check the regulations that
were in place in that state. So I would like to ask the DEC to ensure that we have an appropriate ratio of well inspectors available per drilling site and that they are present and enforcing regulations that are so diligently researching and putting into place.

Another thing that I would like to raise is that I understand that among those other things that oil and gas companies are not subject to is the Right to Know Act, the Public's Right to Know Act concerning the proprietary chemicals that they use in their fracking fluids. I know the DEC made a statement of some sort that they require the knowledge of that equipment in order to issue a well permit. I don't know about you, but I also want to know what that chemical is. If you are trying to make a case of some chemical that is present in your water, it's very hard to make your case if you don't know what chemicals they are using. And if they don't know the chemicals when you bring these to a water
treatment facility, how can we be certain that they can appropriately treat that water? How can they be certain that the dilution the gentleman was speaking of earlier, that that dilution is appropriate. If we don't know what the chemical is and what the impact is on human bodies or on our ecosystem and our wildlife.

Another concern that I have is the water, once it's been removed from the ground, and I've heard the term mud ponds, basically they dig a hole in the ground and put a rubber membrane in, or some form of membrane, I put a membrane in my trash can, it's a plastic liner and I don't feel confident using it for anything else even though the liner is, I strongly encourage the DEC to require appropriate tanks to retain that water once it's been removed from the ground, closed system. The other issue with the mud pond is evaporation and we have water that has been -- chemicals have been added to it to make it an appropriate fracking fluid. And as that
evaporates and enters our atmosphere and
turns to our ground, like precipitation
then it's out there. It's in our
groundwater, it's in our water and streams,
it's impacting our wildlife. We have
fishermen who are concerned, we have
hunters who are going to be concerned about
noise and air quality and impacting, a lot
of people coming in here into Steuben
County and that can well be changing if
this becomes a hot zone for drilling.

Just a few other concerns, I
understand that right now we have these
wonderful forms available to us to share
our comments in front of our community
members and I hope that once, I believe
it's the supplemental GEIS, once that draft
is once again made public in that 30-day
period, that it's announced that there will
be public forums once again because I think
that people are only now beginning to
inform themselves and becoming aware of the
potential impacts of this development. And
I think that people are going to want to
say things and they are going to want to say them in a community forum because that's how we know what our community is thinking, what our neighbors are thinking and how we can stay strong, united as a community, and you know, maintain good relations as landowners. And I'm sure that there are plenty of other things to say, but that's all I can think of at this time. I would also like to say that I do have a website, www.forgottenwell.com. I think that everyone is paying a lot of attention to the money that could come in from the Marcellus Shale, but we have to think of our well water. And if you're interested in visiting that site, I think it would be potentially a good doorway to interact as fellow members of the community and share our concerns and to submit additional written comments for the scoping session. Thank you very much.

ALJ: Thank you. The next speaker will be Mark Cook.

PUBLIC SPEAKER: Hi everyone, I'm
Mark Cook and I will be very brief. After listening to the points of concern, I would like to reiterate because there does seem to be an us and them process. Gas and oil and our people who are interested in our environment.

So I would like to encourage the DEC to make all the information that is being discovered available in a readable, understandable form for just everyday folks because I can get really confused by whatever they say about facts and figures. So to actually give information about the actual accidents that have happened, if there have been any; and particulars around road and bridge maintenance that will be paid for because of the tremendous amount of truck traffic. And this time frame for these wells. I read someplace they can be operating for three to five decades in some areas, is that really true? Will we have 50 years of a blanket of gas drilling in this area? And I do have some concerns about the regulations that were lightened
up for the gas and oil industries in 2005
and to see if the DEC actually has any way
of regulating things that the federal
government has chosen now to ignore around
clean air and clean water. Can the DEC
actually enforce anything? And I would
encourage the DEC to examine the spacing of
wells. I've heard, there's been some
speculation about the distance of the
wells. I've heard they can be around a
mile apart, I don't know if that's the
actual legal limit. And the notice of
impact of those spacings, whether the
 spacings can actually be increased. Some
of these things I did see.

And I'll close just on a personal
note, I worked around chemicals for several
years and I'm still recovering from a
long-term low level exposure and it took me
months to find out what my body was
responding to. It's a chemical that's
readily available, Wal-Mart paint and I
used it for three years with relatively
little protection and still suffer
headaches, all sorts of symptoms I won't go into. So once the ground water, if it is possible to make sure it's not polluted so that other people don't have to get sick and spend months or years trying to figure out why, because it took me some time to recover still. So I would like the DEC to make sure there are checkpoints, a way of making sure that the water is clean when we start and clean when we finish. Thank you.

ALJ: Thank you. The next speaker will be Mary Hood.

PUBLIC SPEAKER: Thank you. My name is Dr. Mary Hood, I'm a retired professor of biology, microbiology and I'm a resident of Steuben County and I live in Bath. I usually don't make formal statements, but I felt like I needed to do that tonight.

I am very concerned with the safety of hydrofracking fluid and the contamination of these fluids to our aquifers in our drinking waters. The chemicals that are used in these fluids, they are called additives, are compounds
such as benzene, toluene, xylene, naphthalene, and some methylated naphthalene compounds. And it is well documented by EPA studies that these are very tolerable toxins.

EPA studies also show that the concentrations that these compounds are found in hydrofracking fluids are four to -- over 10,000 times the acceptable levels for drinking water. One of the things that I found very disturbing when I read through the impact statement is that the compounds that would be found in these fluids are not listed nor are their concentrations. And the gas companies claim that this information is propriety, it's protected and they don't give this information.

My question and concern is, how does DEC grant permits if they do not know what these compounds are nor their concentrations? And how can they regulate and ensure our safety, the safety of our drinking water?

I'm going to make this quick because
I'm the last one I think of the evening, but there is a study by the EPA that is entitled Evaluation of Impacts to Groundwater Sources of Drinking Water by Hydraulic Fluid-Methane Reservoirs. The study was done in 2002 and it suggests that perhaps technologies that do not use these chemicals for hydrofracking fluids might be used and I would like to strongly suggest that this might be something that DEC would look into and recommend. Thank you.

ALJ: Dr. Hood was the last person who signed up to speak. Is there anyone else who was interested in making a statement, because we have been going for about two hours and the stenographer hasn't had a break. I would like to take a five-minute break and then continue with the statements.

(RECESS TAKEN.)

ALJ: The next speaker will be Glen Hill. Is Glen Hill here? Then I will call the other person I have a card for, the name is Colby Miller.
PUBLIC SPEAKER: Thank you. My name is Colby Miller, I'm a landowner in Wheeler and I'm just speaking to educate myself about these issues.

I attended a meeting last week, I saw a video that Rachel Treichler mentioned about Colorado, and up until that point I heard a little bit about the fracturing process, you know, how they use just salt water. It seemed pretty innocent and then I started hearing, you know, I saw this video of the community or different people in the community speak about their experience with the drilling process, the impact on the community and, you know, it seemed like some people there made a lot of money and there was also a devastating impact on the local environment and the phrase that came to mind at that point seeing this was that these people had sold their souls to the devil. It doesn't exactly fit, but there's spoiled drinking water, people's land value where there was this pollution, the land value, you can't
sell it and you can't really live there. So as far as I'm concerned, you know, we should not rush this process. There is no need to rush, people can wait to get their money, but we need to make sure the environment's protected.

We can't put a price on the value of clean water, clean air. Our bodies are 70 percent water, Mary Hood the microbiologist, she mentioned benzene, toluene, these are carcinogenic, I'm a trained chemist, I've worked with these chemicals in a lab at Corning and other places.

In Corning you have to have special permission to get benzene, it's strongly discouraged that you use it, use any small amount. You have to use it with a hood, a fume hood where you don't breathe any of the fumes. Any of the benzene you use has to go into a bottle and it's labeled and it goes to a special landfill so it's not released into the environment. If you have benzene in a glass jar in your hood and you
empty that out, if you wash out that glass jar, if you wipe it out with a towel after you've washed it, you have to take that towel and put it in a special waste compartment that can't just go in the garbage. In some industries these chemicals are highly regulated and my experience is that any time something is released into the environment these wells, I don't think are closed systems, these chemicals are going into the earth, some of them are staying in the earth and they are going to move, they are not going to stay some place far away from us. I believe they will end up in our groundwater, that is very likely.

So this is something that I think we need to take our time with. It needs to be investigated fully, we do need not be pressured into pushing the process along. And some points that have already been brought up, I believe where there is drilling, if drilling is allowed, local wells, the wells of the adjoining property
need to be tested before, during and after. We should charge all the money we need on permits if these wells are going to be allowed to be used, we should charge them a lot of money and this money should be used for inspectors to make sure its done properly and that wells are tested and if wells are contaminated that, you know, proper compensation can be made if that's possible. So, you know, folks who are going to be making money here, some local money, but a lot of people that don't live here and won't be living here, and don't have to live with the consequences that we will have to live with here. You know, and again, if the groundwater in our property was contaminated, then it would ruin our livelihood. So I think those are the main points that I wanted to make. Thank you very much.

ALJ: The next speaker will be Wendy Woods.

PUBLIC SPEAKER: Hi, good evening. My name is Wendy Woods and thank you for
your time. I just moved to Bath, New York from New Jersey this past summer. It's been my dream to move up here and I'm very glad that it's finally realized. One of the reasons that I came up here was the quality of life, the scenery, the fresh air and I can tell you, please don't take these things for granted. You may have been raised here, you may think, oh, this is a depressed economy, we need to do something about it. Don't let a couple of years of not enough dough make you ruin your natural resources for generations to come. We all have a responsibility. Envision the people of this area, the Iroquois Nations, where their elders got together and they were to make decisions, they looked ahead for 13 generations on how it would affect the folks to come. I don't know what they could possibly have been doing that they would have thought would affect 13 generations to come. But the things we do, the things that have been done, you know, we are halfway to plutonium going on
here. And please don't turn New York State into another New Jersey because the water there doesn't taste good. The air is acrid and it hurts your nose, and things are blowing by all the time. There's tons of industry and agriculture.

Now, there's a lot of wide open spaces here, there's plenty of room for a well, what does two million gallons of water look like after it's contaminated? I don't want to see these ponds festering on the side of the highway.

And, again, we need to be informed as citizens, you need to do some researching. When I first heard the folks from the industry talking, oh, there'll be a little bit of salt water left over, that doesn't sound so bad, but after I heard Colby, benzene, toluene and then the woman, the lawyer from Hammondsport, thank you for your information, the endocrine disruptors, this is something that really needs to be looked at. The endocrine system is largely overlooked, we know about heart,
circulatory, whatever, but the endocrine system is what can really mess you up, even as an elder it can mess up your kids. And there's no way we can apologize to the future. So please take your time and find out all the answers, all the information that you can before you make these decisions, because the water belongs to everyone.

We have a huge aquifer here and as the gentleman from the Sierra Club stated, there's millions of people downstream who are depending on us. So thank you very much.

ALJ: I have a card from one other person that signed up to speak that wasn't here a moment ago, is Glen Hill here? I guess not, that's the last of the cards that I have and the last of the people that signed up to speak.

I will remind you that statements can be made in writing by close of business by December 15th and they can also be made by e-mail and also if you have a short comment
that you would like to make, there are these blue cards out on the table, you can write that down and submit that tonight. And if you need any of the addresses or so forth, please see me after the meeting. That concludes the meeting. Thank you very much and thank you to the school for the use of their space too.

CERTIFICATION

I hereby certify that the proceedings and evidence are contained fully and accurately in the notes taken by me on the above cause and that this is a correct transcript of the same to the best of my ability.

______________________________
DANIELLE R. GEORGE