

1 SUPPLEMENTAL GENERIC ENVIRONMENTAL IMPACT
2 STATEMENT DRAFT SCOPING MEETING ON DECS OIL AND
3 GAS REGULATORY PROGRAM FOR THE MARCELLUS SHALE
4

5
6 HELD ON: December 2, 2008
7 HELD AT: SUNY Oneonta
8 108 Parkway
9 Oneonta, New York

10
11 BEFORE: RICHARD WISSLER
12 Administrative Law Judge
13 NICOLE M. ROCKWELL
14 Hearing Reporter

15 DEC APPEARANCES:
16 BRADLEY FIELD
17 KATHLEEN SANFORD
18 GENE KELLY
19 JOHN HARMON
20 JACK DAHL
21 CARRIE FRIELLO
22 TED LOUKIDES
23 JENNIFER HAIRIE, ESQ.
24

1 ALJ: Good evening, I note the
2 time is now 5:15. My name is Richard
3 Wissler, I am the administrative law
4 judge for the New York State
5 Department of Environmental
6 Conservation and I will be presiding
7 at this evening's legislative hearing
8 which, for the record, is being held
9 on Tuesday, December 2, 2008 in the
10 Hunt Union Ballroom of the Campus of
11 SUNY Oneonta, 108 Parkway, Oneonta,
12 New York.

13 The purpose of this hearing is
14 to solicit public comment on a draft
15 scope released by the Department of
16 Environmental Conservation on October
17 6, 2008. This scoping document will
18 assist the Department in identifying
19 potential impacts and mitigation
20 issues which must be evaluated in its
21 preparation of a Supplemental Generic
22 Environmental Impact Statement on the
23 Oil, Gas and Solution Mining
24 Regulatory Program. The Department

1 has determined that a Supplemental
2 Generic Impact Statement is necessary
3 in order to evaluate any potential
4 environmental impacts of anticipated
5 horizontal drilling and high-volume
6 hydraulic fracturing to develop in
7 natural gas reserves in the Marcellus
8 shale and other low permeability gas
9 reserves. After the close of the
10 comment period on the draft scope,
11 the Department will release a final
12 scope for the Supplemental Generic
13 Environmental Impact Statement.
14 Thereafter the Department will
15 prepare a supplemental -- a Draft
16 Supplemental Generic Environmental
17 Impact Statement which will also be
18 released for additional public review
19 and comments before it is finalized.

20 That's kind of important
21 because your comments this evening
22 are very important to develop that
23 scope document which guides the
24 Department in the preparation of that

1 supplemental Generic Environmental
2 Impact Statement. This will not be
3 your only opportunity to be heard and
4 to comment on this process, but it is
5 the first step. My assignment this
6 evening is to ensure that your
7 comments on the draft scope are
8 received in an orderly fashion. It's
9 not necessary for you to have filed
10 in advance to participate in this
11 hearing, if you wish to speak you
12 need to fill out one of the speaker
13 cards that are at the table out
14 front. Those cards will then be
15 brought up to me and I will call your
16 name when it is your turn to speak
17 and at that time come on forward here
18 to the microphone and provide us with
19 your comments.

20 Please begin with your name
21 and if you're speaking on behalf of
22 someone or some group, please
23 indicate who they are. Your
24 statements are not being made under

1 oath and nobody's going to be subject
2 to any kind of cross-examination
3 tonight.

4 When you make a statement,
5 please speak loudly, slowly and
6 clearly since all your comments today
7 are being recorded by our court
8 stenographer right here and if we
9 can't hear you, there is a risk that
10 your statement won't be recorded
11 accurately. In addition I would ask
12 for everybody to show courtesy while
13 somebody else is speaking.

14 I believe that we have the
15 hall here tonight until about 10:00.
16 There are more than 30 speakers
17 cards, I understand, that were
18 brought up to me. I want to give
19 everybody the opportunity to make
20 their full comments. I don't want to
21 have to put time limits on anyone,
22 but I would ask that you be courteous
23 to your fellow speakers so that we
24 can hear everybody tonight. So if

1 you have a written statement or
2 something like that and you just want
3 to hand that in, come up and make a
4 few brief introductory comments,
5 that's fine. If you do have a
6 written comment and you want to read
7 it into the record, that's okay too,
8 but I would just ask you if -- if
9 it's 30 pages long, maybe you could
10 summarize it for us or something like
11 that. I want to make sure everybody
12 gets heard tonight.

13 I would note for the record
14 that notice for this hearing was
15 published on October 15, 2008 in the
16 Environmental Notice Bulletin which
17 is found on the Department's website
18 www.dec.ny.gov. If you don't want to
19 make a public statement tonight and
20 you want to make a written statement
21 you may do so. Either tonight write
22 your comments on the back of the card
23 which again is at a table, you may
24 have seen the sign, make a written

1 statement and put it on that card,
2 you can do that, but if you'd rather
3 prepare a written statement and mail
4 it to the Department, you can do so
5 anytime prior to the close of
6 business which will be 5:00 p.m. on
7 Monday, December 15, 2008. Please be
8 aware that the Department staff gives
9 equal weight to written comments and
10 oral comments in its review. Anyone
11 wishing to send a written statement
12 to the Department should send it to
13 the attention of Scope Comments,
14 Bureau of Oil and Gas Exploration,
15 New York State Department of
16 Environmental Conservation, Division
17 of Mineral Resources, 625 Broadway,
18 third floor, Albany, New York
19 12233-6500. That's available from
20 the Department staff up front, it's
21 also in the notice that you can find
22 on the DEC website or you can e-mail
23 your comments to the Department at
24 dmnog@gw.dec.state.ny.us. Again

1 you'll find that e-mail address on
2 the Department's website.

3 At this point, I'm going to
4 turn the program over to Brad Field
5 who is the Director of the Division
6 of Mineral Resources for the
7 Department of Environmental
8 Conservation for a presentation by
9 Department staff and thereafter we
10 will take comments from the public.
11 I'll be taking comments first from
12 your elected officials and state and
13 federal government-appointed
14 officials and then we'll take
15 everyone's comments. You can address
16 any aspect of the scope -- draft
17 scope that you would like to, this is
18 not a question and answer session,
19 however, it is the opportunity to
20 hear your comments. Mr. Field?

21 MR. FIELD: Thank you, Judge
22 Wissler, and welcome everyone and
23 good evening. Before we get started
24 we have a brief presentation here we

1 would like to present to everyone,
2 but before we do that I'd like to
3 recognize and identify for you some
4 of the people that have come out here
5 from the Department and the Division
6 to be with you tonight. A lot of
7 them you've talked with out in the
8 lobby, before hand and with that I'll
9 start with Regional Director Gene
10 Kelly from Schenectady, his region
11 covers this part of New York State.
12 I'd also like to recognize John
13 Harmon who is the Assistant Director
14 of the Division, Jack Dahl who's our
15 Director of the Bureau of Oil and Gas
16 Regulation, Ted Loukides and Carrie
17 Friello, who are mineral resource
18 specialists with us and our program
19 counselor is here, Jennifer Hairie.
20 Thank you.

21 With that I'll turn it over
22 now to Kathy Sanford, who is chief of
23 our permit section in the division
24 and she's going to walk through a

1 brief presentation with you and then
2 after that we'll turn it back over to
3 the judge for comments. Thank you.

4 MS. SANFORD: Good evening and
5 thank you for being here tonight to
6 share your input with us on how the
7 department should regulate shale gas
8 Development in New York. As has been
9 said, most of our time tonight will
10 be spent on hearing your comments,
11 but before we do that I'm going to go
12 over again and in a little bit more
13 detail the process that we're
14 following and why we're here tonight
15 and some of the key points. This is
16 a public scoping meeting and the
17 topic is a draft scope for a
18 Supplemental Generic Environmental
19 Impact Statement on the Department's
20 Oil and Gas Regulatory Program. So I
21 will explain what a Generic
22 Environmental Impact Statement is and
23 I will tell you a little bit about an
24 existing generic statement that

1 covers oil and gas drilling in New
2 York. Then I will go over why the
3 Department is preparing a supplement.
4 We'll review the objectives of the
5 scoping process and then I'll briefly
6 go over some of the key points in the
7 draft scope. We do have copies of
8 the draft scope available out here
9 tonight and I'm sure many of you have
10 already read it, it's been released
11 since October 6th and I think I'll
12 get going.

13 A Generic Environmental Impact
14 Statement is a way to evaluate the
15 potential impacts of separate actions
16 that have common environmental
17 impacts. Most of the potential
18 impacts associated with drilling an
19 oil and gas well are the same
20 regardless of where the well is
21 drilled, how deeply it is drilled or
22 whether it is drilled vertically or
23 horizontally. So site specific
24 individual impact statement is not

1 necessary, unless the proposed
2 project has unique or non-generic
3 characteristics. The Department
4 completed a Generic Environmental
5 Impact Statement that covers oil and
6 gas drilling in New York in 1992 and
7 that statement is available on our
8 website at
9 www.dec.ny.gov/energy/45912.html.
10 Now even with this generic statement
11 in place, the Department does review
12 applications to drill wells
13 individually. We look at the
14 proposed location and the proposed
15 methods and we determine on a
16 site-specific basis what permit
17 requirements and conditions are
18 necessary to protect the environment.
19 If everything is consistent with the
20 generic statement, then there will be
21 no significant environmental impact.
22 We may find that other DEC permits
23 are needed, such as for stream and
24 wetlands disturbance. In that case

1 we have to consider those
2 implications before we determine the
3 environmental significance. Further
4 review, beyond the generic statement,
5 is required for a proposed well
6 location in a state parkland or if a
7 proposed well site will disturb more
8 than two and a half acres in an
9 agricultural district. Further
10 review is also required for any
11 proposed drilling within 2,000 feet
12 of a municipal water supply well.

13 Now those are the findings
14 that were made in 1992. Other
15 circumstances may arise which require
16 further review. For example, the
17 1992 generic statement does not
18 address drilling in the vicinity of
19 underground water supply tunnels. It
20 does, however, address drilling in
21 watersheds and aquifers. Many
22 aspects of the proposed shale gas
23 development are covered by the
24 generic statement, but not all of

1 them are. Many of the potential
2 impacts will be the same regardless
3 of where the well is drilled. So,
4 therefore, the Department is
5 preparing a Supplemental Generic
6 Environmental Impact Statement to
7 address the new potential common
8 impacts. I will refer to that
9 tonight as the Supplement and in this
10 case most of the new potential
11 impacts are associated with the large
12 volumes of fluids that will be used
13 for hydraulic fracturing of the
14 shale.

15 So now that we've reviewed
16 briefly what a generic environmental
17 impact statement is and why we are
18 preparing a supplement, we'll talk a
19 little more specifically about why
20 you're here tonight. This is a
21 scoping meeting and scoping is the
22 process that we use to determine what
23 topics will be covered in the
24 Supplement. This is the fifth of six

1 meetings that the Department has
2 scheduled to collect comments, we
3 scheduled meetings in the Southern
4 Tier and the Catskills. As Judge
5 Wissler already said, we're accepting
6 verbal comments tonight, we'll take
7 written comments tonight and we can
8 take written comments until December
9 15th and your comments will be
10 considered before we finalize the
11 table of contents for the
12 Supplement.

13 There are several objectives
14 to the scoping process. The first is
15 to identify the potential impacts of
16 an activity. The activity that we
17 are reviewing is high-volume
18 hydraulic fracturing and in the scope
19 the Department has identified some
20 potential impacts. Examples include
21 the visual impact of potentially
22 larger well sites or the noise
23 associated with fluid pumping, water
24 withdrawals from water bodies for

1 hydraulic fracturing can have several
2 potential effects. There are more
3 listed in the draft scope and these
4 will be reviewed in the Supplement.
5 Another objective of scoping is to
6 identify any concerns that might be
7 insignificant or irrelevant because
8 these would not need to be addressed
9 in the Supplement. A third objective
10 of the scoping process is to help the
11 Department identify what additional
12 information we need in order to
13 complete the Supplement. One example
14 that is mentioned in the draft scope
15 is the result of radioactivity
16 testing of the Marcellus shale that's
17 currently underway. Another example
18 is the information that we are
19 collecting regarding chemical
20 composition of hydraulic fracturing
21 additives. A fourth objective of the
22 scoping process is to identify ways
23 to minimize impacts, to avoid impacts
24 and this would include a review of

1 any alternatives to the proposed
2 activity and finally, again scoping
3 is how we get your input on these
4 topics.

5 Now the draft scope itself is
6 like an outline or a table of
7 contents for what will be in the
8 Supplement. We prepared a draft
9 scope at the Department and made it
10 available for your review so that you
11 could give us your feedback on our
12 ideas and what other ideas you have
13 or what should be in the supplement.
14 We did also include some background
15 information in there so that you can
16 learn a little bit about gas and oil
17 drilling in New York and how the
18 department regulates it. As I
19 mentioned we have copies of the scope
20 here tonight, if we run out, just
21 give one of us your mailing address
22 and we'll have one mailed to you or
23 you can get it off our website at
24 www.dec.ny.gov/energy/47554.html.

1 So, just summarize again,
2 we're here tonight to get your
3 comments on the draft scope. We'll
4 finalize the scope after we've
5 reviewed your comments and the scope
6 will serve as a table of contents or
7 outline for the Supplemental Generic
8 Environmental Impact Statement. Now
9 I'll go over some of the key points
10 in the draft scope. High-volume
11 hydraulic fracturing is not
12 adequately addressed by the 1992
13 Generic Supplement -- sorry, the 1992
14 Generic Statement. We will use the
15 supplement to look at unique issues
16 related to shale gas development that
17 are not addressed by the 1992
18 statement. Even when the supplement
19 is finalized and in place though, the
20 Department will still review
21 applications to drill wells
22 individually. One well at a time we
23 will look at whether the proposal is
24 consistent with the Generic Statement

1 and the Supplement. One well at a
2 time we will determine whether a
3 proposed project has unique
4 characteristics that require other
5 permits or whether changes to the
6 activity, as proposed, are necessary
7 in order to protect the environment
8 and we will continue to assure that
9 each permit to drill includes the
10 conditions and requirements that are
11 necessary to protect the environment.

12 One of the specific activities
13 that is not discussed in the 1992
14 Generic Statement is the withdrawal
15 of large volumes of water from water
16 bodies for hydraulic fracturing.
17 This could affect stream flow and
18 taking too much water out at the
19 wrong time could affect availability
20 of water for other uses, such as
21 public water supply or recreation.
22 The Department must consider the
23 water needs of fish and wildlife.
24 These will all be -- these are all

1 mentioned in the scope and will be
2 reviewed in the Supplement. The
3 draft scope also talks about how
4 hydraulic fracturing has been managed
5 under the existing Generic Statement.
6 So we'll use the Supplement to look
7 at the new unique aspects of
8 hydraulic fracturing that are related
9 to shale gas development. Examples
10 of these include the storage of large
11 volumes of water at the well site,
12 transportation of that water to and
13 from the well site and available
14 options for fluid reuse, treatment
15 and disposal.

16 These activities that we've
17 talked about have the potential to
18 affect the environment in several
19 ways. Without adequate controls,
20 water resources could be impacted.
21 There may be noise and visual
22 impacts. There may be potential air
23 quality impacts, trucks will haul
24 water on local roads. The Supplement

1 will also review community impacts,
2 cumulative impacts and any
3 environmental justice concerns. We
4 expect that we'll hear many comments
5 from you tonight on potential impacts
6 and we will consider all those
7 comments before we finalize the
8 scope.

9 Ultimately, the Supplement
10 will answer these questions about
11 high-volume hydraulic fracturing:
12 What are the potential impacts and
13 how can they be avoided or minimized.
14 When will the Generic Statement and
15 the Supplement together be adequate
16 to support issuance of a permit to
17 drill? When will the need be
18 triggered for an additional
19 individual site specific Supplemental
20 Environmental Impact Statement to go
21 along with a Generic Statement and
22 Supplemental Environment Statement?
23 This information was posted outside,
24 I think Judge Wissler mentioned some

1 of it. We plan to have the final
2 scope ready next month and then in
3 the spring we hope to have ready for
4 your review, a Draft Supplemental
5 Generic Environmental Impact
6 Statement. There will be a notice
7 published when that is ready. There
8 will be a comment period on that and
9 after that comment period we will
10 publish a Final Supplemental Generic
11 Environmental Impact Statement.
12 We're hoping to do that in the summer
13 of 2009. At least 10 days after that
14 final supplement is published, the
15 Department will make findings and
16 those findings are what will define
17 our future environmental review of
18 individual well permits.

19 So again, this is the fifth of
20 six meetings like this. We want to
21 hear your comments, we can take
22 written comments tonight like I said,
23 we can take your comments until
24 December 15th and as Judge Wissler

1 mentioned, that's not your only
2 opportunity, there will be a public
3 comment opportunity on the Draft
4 Supplement once it's been released.
5 If you don't have your written
6 comments ready to submit tonight, you
7 can send it to us by mail or e-mail.
8 Please include your name and return
9 address, so that we can let you know
10 when the final scope is ready and
11 when the draft supplement is
12 available for your review. If you'd
13 like to e-mail your comments, we need
14 to receive the e-mail by the close of
15 business on December 15th. Here's
16 the e-mail address again,
17 dmnog@gw.dec.state.ny.us. We'd
18 appreciate it if you would put Scope
19 Comments in the subject line. If
20 you'd like to mail them, again to the
21 attention of Scope Comments, Bureau
22 of Oil and Gas Regulations, DEC
23 Division of Mineral Resources, 625
24 Broadway, third floor, Albany

1 12233-6500 and we need to receive
2 them by the close of business on
3 December 15th. These addresses are
4 on the front page of the scope and as
5 Judge Wissler mentioned in the notice
6 and with that I'll turn it back over
7 to Judge Wissler so we can begin to
8 take your comments.

9 ALJ: Thank you, Kathleen.

10 Can everybody hear?

11 PUBLIC: Yes.

12 ALJ: We'll begin with Senator
13 James Seward and after Senator Seward
14 we will hear from Assemblyman Peter
15 D. Lopez. Senator Seward.

16 PUBLIC: Thank you, Judge. As
17 it's been said, I'm Senator James
18 Steward and I'm representing the
19 people of the 51st senatorial
20 district. The Marcellus shale is one
21 of the largest natural gas fields in
22 North America and could provide a
23 multibillion dollar economic boost
24 for the areas in and surrounding the

1 Marcellus shale formation. That's an
2 economic boost that we definitely
3 need in our upstate area.

4 Skyrocketing fuel prices earlier this
5 year have clearly demonstrated our
6 need to reduce our dependence on
7 foreign oil. Reducing consumption,
8 increasing our use of renewable
9 energy and alternative fuels and
10 increasing exploration of additional
11 sources of energy will all help to
12 further this goal. Utilizing the
13 tremendous energy resources of the
14 Marcellus shale formation could play
15 a significant role in helping us to
16 reduce our dependence on foreign oil.
17 It's a domestic source and it will be
18 keeping our energy dollars here at
19 home.

20 That being said, I also
21 believe, however, that it is
22 absolutely imperative that
23 environmental protections are in
24 place to ensure that our beautiful

1 area does not suffer environmental
2 harm as a result of natural gas
3 exploration or drilling. I commend
4 DEC for instituting this process,
5 it's a process that I advocated right
6 from day one because I believe that
7 it's absolutely important that we
8 develop a Supplemental Generic
9 Environmental Impact Statement to
10 address all of the new issues and
11 potential environmental impacts which
12 may arise as a result of natural gas
13 exploration and drilling in the
14 Marcellus shale formation.

15 Now, I have reviewed the draft
16 scoping document and have generally
17 found it to be quite comprehensive.
18 Some issues which I find to be
19 particularly important and which I
20 believe must be addressed in the
21 Supplemental Generic Environmental
22 Impact Statement include the
23 following: It is imperative the
24 composition of fracturing fluids be

1 known and that any additives to such
2 fluids are reviewed and determined to
3 be safe. Independent on-site testing
4 and verification of fracturing fluid
5 contents must be conducted. Fluid
6 handling, both at the site and during
7 transport to and from the site, must
8 be accomplished in such a manner so
9 as to ensure that there is no
10 environmental harm. Safe fracturing
11 of fluid disposal options and methods
12 must be identified and proved and if
13 the fluids are recycled or reused for
14 any purpose, this must be done in an
15 environmentally sound manner. Water
16 withdrawals must be addressed and
17 regulated to ensure that such
18 withdrawals do not negatively impact
19 other current or future uses of a
20 water supply. Adequate protections
21 must be in place to protect
22 groundwater and wells. On-site well
23 inspections are needed to ensure
24 compliance with all regulations and

1 rules. Local governments must be
2 notified and have the opportunity to
3 comment should they -- they should be
4 provided for at the earliest stages.
5 Local governments should be given
6 notice of the filing of a drilling
7 permit application within their
8 jurisdiction when the applications
9 are filed, not after they are
10 granted. Local impacts are best
11 judged by local officials and local
12 citizens. Also, DEC must initiate
13 more coordination with the Public
14 Service Commission to regulate all
15 gas gathering lines leading to
16 transmission lines to ensure sound
17 environmental practices. Since PSC
18 regulates the gathering lines and the
19 transmission lines, we need more
20 coordination with the DEC and the
21 Public Service Commission to ensure
22 those practices are done in an
23 environmentally sound and adequate
24 way. These are some of the major

1 issues which my constituents have
2 identified and shared with me
3 related to natural gas drilling in
4 the Marcellus shale formation. In
5 summary, the financial benefits
6 associated with natural gas drilling
7 in the Marcellus shale could be
8 enormous. In addition the benefits
9 from an energy supply perspective are
10 also important. We must assure,
11 however, that the utmost
12 consideration is given to protecting
13 our environment as we move forward in
14 capturing the benefits of this
15 resource. The draft scoping document
16 with the additions that I mentioned
17 here tonight and there will be many
18 other additions that others will
19 raise, these form a good foundation
20 for the consideration of the many
21 issues related to the drilling in the
22 Marcellus shale and will help ensure
23 that our environment is protected
24 while we move forward to enjoying the

1 benefits associated with this
2 valuable natural resource.

3 Finally, I would urge DEC to
4 carefully consider all of the
5 additional issues and comments that
6 others will bring forward here at
7 this session this evening, vitally
8 important that you listen to the
9 concerns of the people directly
10 affected. Thank you very much for
11 your time.

12 ALJ: We'll next hear from
13 Peter Lopez, Senator Lopez. After
14 Senator Lopez, we will hear from
15 Kevin Young.

16 PUBLIC: Thank you, Judge
17 Wissler. I want to commend the
18 Department for convening this series
19 of sessions. I've had an
20 opportunity, myself and my staff, to
21 attend a number of these forums and
22 they've been held by three groups, by
23 land owners, by farmers, by business
24 people. The Attorney General's

1 office, DEC and others and clearly
2 this issue is a sensitive issue.
3 It's an issue that has concerns
4 ranging from economic development, to
5 private property rights, to
6 environmental issues and
7 sustainability. The clear issue
8 here, and certainly Senator Seward
9 touched on what we actually feel is
10 that -- we're trying to look for
11 balance and relying on the Department
12 and others working with the
13 Department, to define an equitable
14 balance between environmental
15 protection, economic opportunity and
16 property rights. It's a very tenuous
17 relationship, it's certainly very
18 personal and a very sensitive issue.

19 In terms of issues that we
20 heard and these are issues I would
21 encourage the Department to look at
22 very closely. At a farm in Norwich
23 we heard a discussion of waste water
24 that had been coming from the pumping

1 operation that had no final
2 destination and it was a very urgent
3 concern voiced by the municipality
4 and others as the well driller had
5 tried to rid themselves of the waste.
6 They actually worked or attempted to
7 have the water treated at the
8 municipal system. The system
9 operator had rebuffed the drillers,
10 is my understanding, and the
11 whereabouts of that waste fluid still
12 remains unknown. Those sorts of
13 situations are dangerous for the
14 community and clearly the challenge
15 will be to ensure that, just as we do
16 in any sensitive material, that there
17 is an understanding of where its
18 final destination is and how it will
19 be handled and how it will be brought
20 back into a reasonable stage or
21 disposed of properly. Senator
22 touched briefly on the use of the
23 additives in the hydro-fracturing
24 process. Clearly, and this was part

1 of the reflections of that night in
2 Norwich, we can't take an attitude
3 that, not to be flippant, but this is
4 not Colonel Sanders and the seven
5 secret herbs and spices in Kentucky
6 Fried Chicken, this is a very
7 sensitive issue and does require full
8 disclosure. And again, the intent is
9 not to deny, but to understand and
10 make a decision with eyes open so
11 that there's a full understanding of
12 impacts.

13 The last item I would like to
14 emphasize, were looking at broad
15 impacts in providing an operative
16 framework for which the drilling
17 initiatives we may be undertaking.
18 The main reason for the GEIS is it's
19 a blanket authorization, it gives
20 broad parameters, but clearly the
21 issue of site-specific analysis is
22 something that should be looked at
23 very carefully by the Department and
24 the triggers that go with a

1 site-specific analysis and whether
2 the cumulative impact or whether it
3 be aquifer sensitivity. Those issues
4 should be clearly identified.

5 Just in closing, certainly
6 we're here as partners and as
7 legislators we rely heavily on the
8 department and its expertise to
9 provide the detail and to be the
10 partners in making sure that this
11 process moves forward in a balanced
12 and sustainable way. Thank you for
13 the opportunity.

14 ALJ: Thank you. Kevin Young,
15 after Mr. Young we'll hear from Glen
16 Note. I want to apologize if I
17 butcher anybody's name, I'm sure I
18 will.

19 PUBLIC: I would like to thank
20 the DEC for this opportunity. I'm
21 here on behalf of Delaware County
22 Board of Supervisors. The Delaware
23 County Board of Supervisors
24 represents the 19 towns in Delaware

1 County. Each supervisor's from a
2 town and that's how they govern the
3 county. The Board of Supervisors
4 objective in making comments tonight
5 is really to say what their objective
6 is on natural gas. Their main
7 objective is to do whatever it takes
8 to sustain their communities and to
9 improve the quality of life of the
10 residents in their communities. We'd
11 like DEC to consider the same in
12 Delaware County in the Generic
13 Environmental Impact Statement and
14 what impacts natural gas poses as
15 both positive. And a negative on
16 that community study and to get an
17 idea what that study is I thought I
18 would just kind of describe some of
19 it. Delaware County is large
20 geographically, 1,464 square miles.
21 That's larger than Albany,
22 Schenectady and Rensselaer County
23 combined, it doesn't have a growing
24 population. In 1860 Delaware County

1 had 46,000 people, in 2007 census we
2 had 46,340 people. So in 150 years
3 we've got 340 more people.

4 Population trends go up and down.
5 Right now all the models say we're
6 going to lose about 1,000 residents
7 by 2010. Our per capita income is
8 one of the lowest in the state, but
9 we have good employment.

10 Manufacturing is still very strong in
11 Delaware County, they count for about
12 80 percent of the jobs and 40 percent
13 of the income revenue. Government
14 services count for the second largest
15 employer and then there's
16 agricultural and then just plain old
17 services. Services themselves are
18 about 2 percent of the jobs, but only
19 16 percent of the total revenues.
20 The service sector gets lower wage
21 and typically doesn't have benefits.

22 What Delaware County needs and
23 what Delaware County has been losing
24 is full-time residents. We need

1 full-time residents in order to have
2 full-time residents. In other words
3 we need enough residents that can
4 sustain basic community services and
5 that's what Delaware County's facing
6 and I think that's what a lot of
7 these rural communities are facing.
8 It's very hard for us now to demand
9 healthcare because a healthcare
10 facility requires in today's world,
11 in today's regulations, a lot of
12 sophistication and to get that
13 sophistication we need volume to pay
14 for the cost and so if you go and you
15 check out Margaretville Hospital and
16 you'll find that they're always
17 struggling. If you check with the
18 telephone company, you'll find that
19 the local telephone company in
20 Delaware County has less customers
21 today than it did 10 years ago. Why,
22 because we have less full-time
23 residents and because of cell phones,
24 but if you go and also check on cell

1 phones, you'll find that most of the
2 county does not have cell service.
3 Why, because it's just not
4 economically efficient for the cell
5 carriers to provide areas with cell
6 service that don't have populations
7 and you go down through that you'll
8 find that it's getting harder and
9 harder for us to man our volunteer
10 fire departments because there's less
11 and less young people to serve and
12 it's harder on our residents who
13 typically have to travel a longer
14 distance for work. Even if somebody
15 travels to Binghamton, somebody
16 travels to Kingston, somebody travels
17 to Albany, but when the gas prices go
18 up we tend to lose residents because
19 if you're making \$30,000 in Kingston
20 you can't afford the gas to get
21 there. So we have that problem.

22 We have the added problem of
23 manufacturing -- the longer higher
24 gas prices go up the more

1 manufacturing has to pay to get to
2 the thruway and so the extra hour and
3 a half it takes them to get to the
4 thruway, those extra miles are
5 placing a burden on manufacturing
6 jobs.

7 So the challenge to Delaware
8 County is really to do what it can to
9 ensure that these basic services and
10 that there's enough full-time
11 residents to support these basic
12 services and from that perspective
13 Delaware County Board of Supervisors
14 looked at natural gas as one
15 potential, hopeful mechanism. That
16 if -- that with natural gas in the
17 county, it would generate some real
18 property tax revenues, we understand
19 we could get real property tax
20 revenues on natural gas. It would
21 provide money for farmers and people
22 that own large parcels of land, to
23 maintain those parcels of land and
24 open space and it would potentially

1 provide some short-term jobs and
2 we're hoping it could provide some
3 long-term jobs. Otherwise we're --
4 the county's trying to find a way
5 that the funds could stay within the
6 county long term to help sustain the
7 community. Whether that is
8 generating our own electricity so
9 that we can generate revenue, whether
10 it is generating -- providing low
11 cost gas to the industries that are
12 there, but looking for ways in which
13 the funds can stay and we can use the
14 natural gas monies as a way of
15 keeping us going through the long
16 run.

17 With that we -- what we ask
18 for the scoping document is that the
19 DEC look at the cumulative impact,
20 look at what impact -- what the needs
21 are for these communities and give
22 those needs consideration in
23 evaluating the environmental impact
24 because community character is

1 critical environmental impact and
2 that the DEC make the permitting
3 process doable. That's part of our
4 concerns that if somebody's going to
5 drill for natural gas in Delaware
6 County, that everyone has to invest
7 the money, everyone has to take a
8 certain risk and we would like you to
9 take a risk based upon real issues
10 and not on permitting issues. In
11 other words, we'd like the permitting
12 process to be clear and objective,
13 such that when somebody complies with
14 the protocol for storm water or
15 complies with the protocol for
16 collecting surface water or complies
17 with the protocol for ecological
18 impacts, that they know what they
19 have to do and they go through the
20 process to do it and at the end
21 there's a permit there that they can
22 comply with. So we are asking the
23 DEC to be consistent, I think, with
24 the way in which DEC has regulated

1 natural gas mining throughout the
2 generic process that's there and
3 that's protective of the environment.
4 We'd also like DEC to make sure that
5 there is funding reserved for the
6 closing of these wells because we
7 have seen that in some communities
8 unplugged wells have caused problems
9 and we would like to make sure that
10 there is protection of the local
11 roads. So in other words, if there's
12 heavy equipment that's going to come
13 in and damage the local roads, that
14 there's a cost effective means for
15 the communities to recoup that cost
16 to repair the roads. Thank you very
17 much.

18 ALJ: Mr. Note, after Mr. Note
19 we'll hear from Kate Marsiglio.

20 PUBLIC: Hello my name is Glen
21 Note, I'm a Counselor and I represent
22 the Town of New Lisbon. I appreciate
23 the opportunity to express our wishes
24 and concerns here tonight. The Town

1 Board of New Lisbon believes that
2 natural gas drilling is forbidden in
3 New Lisbon and every effort should be
4 made to provide for the health,
5 safety and property rights of the
6 residents and property owners and to
7 ensure that the natural and cultural
8 environment and ecological system is
9 not endangered. The Board recognizes
10 that the draft scope is very broad
11 and addresses many areas of concern.
12 However, there are still several
13 situations that concern us. When we
14 have to look back to the laws of
15 2006, if gas drilling and its
16 intended use of open pit storage --
17 a producer of contaminated water that
18 had been going on we could have
19 experienced a major disaster.

20 With this in mind, the Town
21 Board strongly urges the following:
22 Regulations are only as effective if
23 they are enforced. The Town Board
24 requests that a plan be in place

1 before any drilling begins to ensure
2 that an adequate number of training
3 inspectors are on hand to monitor all
4 wells and storage sites.

5 The cost for the training and
6 the added personnel should be assumed
7 by the gas companies. The Town Board
8 also requests that gas companies be
9 required to meet with local emergency
10 responders prior to drilling for
11 information and training or for
12 possible need of specialized
13 equipment. The equipment and
14 training costs should be offset by
15 the gas companies and sufficient time
16 should be allowed for these measures.
17 The Town Board calls for a full
18 disclosure of all chemicals used in
19 any part of the gas drilling process.
20 This is necessary for baseline
21 testing of water supplies. To
22 protect against potential flooding,
23 the Town Board strongly recommends
24 that steel tanks completely covered

1 be required, open pit storage of
2 produced or contaminated water should
3 be prohibited. The Town Board
4 requests a minimum of two weeks
5 notice of any proposed activity
6 involving town roads. This would
7 enable the town highway supervisor to
8 update a baseline infrastructure
9 survey and to review local road
10 conditions and safety issues with gas
11 companies. The Town Board requests
12 that well site plans, driveways,
13 temporary housing and other auxiliary
14 activities conform to our site plan
15 review requirements and our recently
16 enacted comprehensive plan. The Town
17 Board also request that every effort
18 be made to protect our citizens, our
19 flora and fauna and in accordance
20 with the expressed concerns of our
21 community. The Town Board also
22 strongly urges the DEC to give utmost
23 consideration to local government
24 input about any aspect of this gas

1 extraction process. Our final
2 concern is that in light of the
3 proposed across-the-board budget
4 cuts, that the DEC will be able to
5 field adequate enforcement and
6 monitoring personnel.

7 Again on behalf of the Town
8 Board of New Lisbon, I would like to
9 express our appreciation to express
10 our wishes and concerns. Thank you.

11 ALJ: Thank you, Mr. Note.
12 We'll hear now from Kate Marsiglio.
13 Although this is a really beautiful
14 podium and you're certainly welcome
15 to come up here and use it, there is
16 a microphone right here in front, if
17 it's more convenient for you to use
18 that.

19 PUBLIC: I'm here now. Thank
20 you, the gentleman spoke a lot of my
21 concerns, I'm not going to double
22 them. I come to you today, maybe
23 with a little more emotional concern
24 and it's not something we address all

1 the time in our government and I
2 think from time to time that those
3 concerns are also addressed. I come
4 to you as a mother, a young farmer in
5 Delaware County, I grow animals out
6 on pasture, I grow grass, I grow
7 these guys. But I come to you today
8 with the concerns as a young mother.
9 After reading the scope document it
10 was clear to me that we are still
11 examining things as we quantify or
12 measure. While I understand our
13 limitations, I believe that it is
14 time to begin to look at things in a
15 new light, before it is too late.
16 Not before we run out of gas and oil,
17 but before we run out of clean air,
18 soil and water.

19 PUBLIC: Already one sixth of
20 the human population lacks access --
21 just plain access to clean drinking
22 water and I do not want New York
23 citizens to be added to this list.
24 What I'm asking you to consider when

1 you do a new GEIS, because we need a
2 new one. Don't just make a
3 supplement, the old one is completely
4 inaccurate and totally out of date
5 and irrelevant to the new drilling
6 methods that are intended for use in
7 our area. Also consider the activity
8 of the Marcellus shale, there are
9 totally different conditions here.
10 I'm asking you to consider when you
11 do the new writing, consider these
12 things, how much water are we -- how
13 much money are we going to ask the
14 gas companies for so that we can buy
15 my children clean water because
16 that's what happened out west, where
17 they are actually drilling, entire
18 state governments are leaving behind
19 huge blocks of money because, yes it
20 brings a lot of money into the area
21 and then it disappears, goes away.
22 So how much money are we going to
23 need for a future generation, seven
24 generations, thats how many the

1 earthquake people considered and
2 that's how many we need to consider
3 as well.

4 How long will we continue to
5 allow a big industry to take away
6 things that we and the Native
7 Americans have a right to, while they
8 waited for money on our faith. The
9 money will be gone, my children will
10 still be here. How many people will
11 remain in this area. The gentleman
12 from the Board of Supervisors said
13 that he hopes that it will bring some
14 jobs for the long term. Well, not
15 the case. What happens is they come,
16 they drill the wells, there's a huge
17 boom, there's a lot of money, they
18 drill the wells and they run
19 themselves and everything disappears.
20 It's short-term money, it's
21 short-term jobs and short-term
22 residents.

23 Before the new GEIS gets under
24 way we should first do a new draft

1 scope with this new methodology they
2 intend to use. I thank the DEC for
3 also going through this process, it's
4 very important and they're going
5 through it very well.

6 The current draft scope it
7 never mentions how we are going to
8 study many of the topics, how? It is
9 important for people to learn, share
10 and report any impacts in other
11 states where there has been
12 horizontal drilling and hydraulic
13 fracturing in shale for many years.
14 Even though this will not give you an
15 exact idea of what environmental
16 impact might occur here, since this
17 area is very different.

18 A new GEIS would be important
19 to provide raw data, new methodology
20 and not only -- not just conclusions,
21 but the raw data and methodology.
22 There must be a new GEIS since the
23 old one is totally out of date and
24 irrelevant to the new drilling method

1 intended for use in our area. That's
2 all, I could go on, but I'm not going
3 to, thank you.

4 ALJ: We'll hear next from
5 Florence Loomis. After Ms. Loomis
6 we'll hear from Robert E. Elklund.

7 PUBLIC: Thank you for this
8 opportunity to speak, I thought I was
9 going to be number 35, I'm lucky my
10 ticket got stuck up front. My name
11 is Florence Loomis, I live in the
12 town of New Lisbon. I have lived on
13 my land, 87 acres of it, since 1969.
14 I have been a good and careful
15 steward of the land. I have not
16 signed a gas lease, but I am
17 surrounded by land which has been
18 leased. The prospect is numerous or
19 even one horizontal gas drilling
20 project is of great concern. I am
21 very concerned about the huge volume
22 of water that will be required for
23 the drilling process, 80,000 to over
24 1,000,000 gallons per well. This is

1 water that once removed from its
2 source will never re-enter the
3 aquifer. Even if treated it will be
4 unfit for its original purposes, to
5 sustain human, animal and plant life.
6 My visual observations over the years
7 tell me this quantity of water is not
8 available from our streams and lakes
9 in this area and surely it cannot be
10 drawn from local wells. I often see
11 drillers re-drilling local wells,
12 putting them down deeper as more
13 people tap into the shared aquifers.
14 We must absolutely secure our sources
15 of drinking water. Water for farm
16 and home, water for the animals and
17 plants and their specific habitats
18 and the water we use, currently, for
19 recreation.

20 The protection of groundwater
21 is crucial. It is not possible to be
22 overly cautious in this regard. We
23 may not be aware of any contamination
24 of our groundwater until some time

1 has passed and the drillers are gone
2 and the sites restored, when health
3 problems arise and clusters -- health
4 clusters start to form and it is
5 often difficult then to attribute it
6 to the proper source. Any special
7 considerations given to the watershed
8 of New York City must also extend to
9 the communities outside the water
10 source.

11 PUBLIC: Safe and proper
12 maintenance, control and removal of
13 spent fractured fluids is very
14 important. One accident is too many
15 and could result in contamination
16 impossible to remedy. All sites must
17 be held to the highest existing
18 standards. The drilling operations
19 will be noisy, most likely heard well
20 beyond the 1,000 foot mark the DEC
21 projects. While the lease granter
22 may have been compensated to endure
23 this noise, the rest of us in the
24 community have not. No doubt noise

1 24/7 will impact farm, forest and
2 household animals. How do we
3 compensate them?

4 My concern is also about the
5 impact of all the heavy truck traffic
6 will have on our roads. Our town
7 roads were not built to the state's
8 specifications that state highways
9 are. They were built for certain
10 loads and volumes. Certainly much
11 less than they will receive if
12 numerous drilling operations take
13 place in our town. Our town should
14 be given help to assess the
15 capacities and conditions of this
16 roadway and associated
17 infrastructure. We need to know
18 exactly what they can endure. We
19 need to be certain that they will be
20 restored, at least, to the original
21 condition if they are damaged.
22 Restoration of our roadways must not
23 be a town expense or require the
24 labor and equipment of the town

1 highway departments. These expenses
2 must be borne by the drilling
3 operators.

4 At no time can the roadways be
5 allowed to become dangerous for our
6 emergency providers. They cannot be
7 restricted in any way either. These
8 drilling operations may bring
9 monetary benefit to some individuals
10 in our town, but all members of our
11 community will have to endure the
12 noise, the traffic, the potential
13 danger, visual disturbances of the
14 process. Compensation should be
15 given to the community, the town as
16 well. Hopefully our community will
17 remain as the bucolic healthy habitat
18 it is now. Thank you.

19 ALJ: Robert Elklund. After
20 Mr. Elklund we'll hear from Caroline
21 Martin.

22 PUBLIC: Good evening, my name
23 is Robert Elklund and I'm here on
24 behalf of the Butternut Valley

1 Alliance. The Butternut Valley
2 Alliance is a non-partisan advocacy
3 group of local residents in the
4 Butternut Valley, Otsego County, New
5 York. BVA encourages the
6 preservation and protection of
7 environmental qualities, farming and
8 homestead heritage, economic
9 viability, open space and village
10 charm within the entire valley and
11 this watershed. The Butternut Valley
12 is scarred by the Butternut Creek for
13 the distance of approximately three
14 miles from the St. Lawrence,
15 northeast from Burlington, New York,
16 through the towns Burlington, New
17 Lisbon, Morris and Butternut, it ends
18 where it joins the Unadilla River.
19 The valley is situated within the
20 upper Susquehanna River basin which
21 streams and rivers eventually flow to
22 the Chesapeake Bay.

23 This ancient valley was an
24 important destination for native

1 peoples. It is renowned for its
2 uniquely beautiful sights and superb
3 essence. A drive along the highway
4 reveals continuously unfolding
5 panorama of rich cultivated
6 bottomland fields that slope toward
7 the Butternut Creek. This proximity
8 to the creek are extensive wetland
9 habitats has sustained a diverse
10 population to aquatic and terrestrial
11 flora and fauna. The endured
12 families that extend along the creek
13 are dispersed of occasional clusters
14 and scatterings of residents and
15 small businesses. Clean and abundant
16 water plays a vital role in the
17 valleys existence for residential and
18 agricultural uses, as well as to
19 sustain a diverse natural
20 environment.

21 The relatively long river
22 valley reaches to the south southwest
23 with most tributary brooks joining
24 the creek in the north and northwest.

1 These tributary brooks become vast
2 torrents through an episode of
3 intense precipitation are being
4 impacted by increasingly and frequent
5 flooding. Disturbances in the slopes
6 from land grading, excavation and
7 paving contribute to the slurry of
8 run-off of surface waters, loss of
9 valuable topsoil and sedimentation
10 damage to habitats in the Butternut
11 Creek. There also is a serious
12 danger of potential contamination of
13 these water portions by the release
14 of toxic fluid chemicals that could
15 be transported by major surface and
16 ground water for long distances.

17 With these conditions in mind,
18 the BVA encourages participatory
19 community planning and responsible
20 development of our valley. We
21 recognize that the potential for
22 natural gas under our valley may help
23 meet domestic energy needs and to
24 provide economic stimulus to our

1 region. However, we also recognize
2 that gas drilling has a potential to
3 irreparably harm our environment and
4 disrupt our community, including by
5 contaminating our water, polluting
6 our air, creating disturbance in
7 health and light and noise, damaging
8 our roads and otherwise overburdening
9 our entire infrastructure. It can
10 also scar our landscape, destroy the
11 habitat of sensitive species of
12 plants and animals and disrupt our
13 communitys way of life.

14 Therefore, the BVA taskforce
15 in the Butternut Valley would be
16 assured that such drilling will not
17 threaten our environment or quality
18 of life. To date, we have not
19 received such assurances and due to
20 many questions that remain
21 unanswered, we are dubious that could
22 be provided. While we commend the
23 DEC for updating the Generic
24 Environmental Impact Statement, we do

1 not believe that updating the GEIS is
2 enough. Instead we request that
3 permits for new drilling operations
4 should be suspended for a length of
5 time sufficient to ensure that, one,
6 all risks and major impacts on soil,
7 water and air are completely
8 understood by the DEC, prospective
9 leases and larger community. Two,
10 regulations are in place to minimize
11 the risk of harm to the environment
12 and otherwise quality of life.
13 Three, that the DEC is adequately
14 staffed to police compliance with
15 those regulations. Four, actual
16 experiences of existing wells in this
17 and surrounding communities are taken
18 into account. We would like to make
19 sure that all communities have the
20 time they need to consider what, if
21 any, infrastructure development and
22 means needed to their land ordinances
23 or regulations are appropriate to
24 protect the residents.

1 We further request that upon
2 termination of such suspension,
3 further review of the granting of
4 drilling permits be deliberately
5 paced over a period of time in order
6 to ensure that DEC has the staffing
7 necessary to monitor on-site
8 compliance with regulations and act
9 gradually until we were knowledgeable about
10 gas drilling in this region. We also
11 request, as part of the permitting
12 process, DEC consult with the
13 effective participants to ensure that
14 drilling operations are consistent
15 with local land-use plans, policies
16 and regulations. We'd like to ask
17 the expertise directing technical
18 regulations, such as closed route
19 systems for handling fracturing
20 fluids, we would rely on experts who
21 have bigger technical expertise.
22 However, we do believe that the
23 component in safeguarding our
24 environment is a good responder

1 system. We, therefore, put in a
2 request to the DEC to require in its
3 regulations that gas drilling
4 enterprises pay for the cost of
5 monitoring the wells, aquifers and
6 surface waters, as well as a soil and
7 air quality before, during and after
8 drilling. We further recommend that
9 a portion of profits derived through
10 gas drilling be allocated to DEC,
11 specifically, for the purpose of
12 monitoring the safety and regulatory
13 compliance of gas drilling
14 operations.

15 The draft scope indicates that
16 significant habitats and endangered
17 rare or threatened species are
18 addressed through the GEIS. The
19 clear implication is that this topic
20 will not be addressed in the DSGEIS.
21 We believe that this subject should
22 be addressed and that it should be
23 specifically addressed with respect
24 to the unique needs of various parts

1 of Central New York, including
2 specifically the Butternut Valley.
3 The draft scope refers to water
4 withdrawals and states that the
5 effect of water withdrawals,
6 including a cumulative impact will
7 addressed in the DSGEIS. We believe
8 that the impact of water withdrawal
9 in the Butternut Valley should be
10 part of a specific discussion of the
11 impact permit issuance for drilling
12 in the valley. It is not clear from
13 the draft scope the effect of surface
14 water withdrawal and ground water
15 will be addressed. In addition it
16 appears that the effect of
17 groundwater withdrawal in cases in
18 which groundwater is used for
19 hydro-fracing is outside the scope in
20 the GEIS. We assume this means that
21 a specific EIS would be required to
22 permit groundwater withdrawal. We
23 believe that the draft scope must
24 address the environmental impact of

1 water withdrawals independently of
2 the aquifers done by the SRBC,
3 Susquehanna River Basin Commission,
4 and the Delaware River Basin
5 Commission. We understand that the
6 DEC wants to avoid duplication of
7 effort. However, duplication of
8 effort could be minimized without
9 aggravating the DEC's statutory
10 responsibility to conserve, improve
11 and protect New York State's natural
12 resources and environment. We note
13 that the draft scope largely excludes
14 discussion of the environmental
15 impact of installation and
16 maintenance of pipelines. We believe
17 that whether or not pipeline
18 regulations fit into the DEC's
19 jurisdiction to prevent potential
20 environmental impacts of pipelines
21 must be addressed in the DSGEIS.

22 Finally, the Butternut Valley
23 is inhabited by Native Americans long
24 before the area was settled by

1 Europeans. Ancient Indian artifacts
2 and sites have been found up and down
3 the valley. Yet the draft scope
4 makes no mention of potential impacts
5 on such items and locations. We
6 believe the impact on archeological
7 treasures in the Butternut Valley
8 should be addressed in the draft
9 scope. We thank the DEC for taking
10 these comments into consideration and
11 we stand ready to answer any
12 questions or to assist the DEC in any
13 way possible in making sure that gas
14 drilling will not harm the
15 environment or quality of life in the
16 Butternut Valley. Thank you.

17 ALJ: Caroline Martin. After
18 Ms. Martin we'll hear from Richard
19 Everett.

20 PUBLIC: My name is Caroline
21 Martin and I'm here representing
22 Catskill Citizens for Safe Energy. We
23 are a grassroots organization with
24 over 500 members. We are submitting

1 written comments on the draft scope.
2 Running about 37 pages, these
3 comments are technical and detailed,
4 they will soon be available on our
5 website.

6 Today I am trying to cover a
7 few points that need to be addressed.
8 These are horizontal drilling,
9 produced water and its disposal and
10 DEC staffing.

11 The 1992 GEIS contains four
12 volumes and is about three inches
13 thick, it covers many things. The
14 one thing it does not address in any
15 of the illustrations or text is
16 horizontal drilling. There is one
17 mention of this drilling technique in
18 Section 18, on page 17 and it says:
19 "Research by the US Department of
20 Energy has shown that shale gas
21 production can be increased sevenfold
22 by drilling the wellbore
23 horizontally, instead of vertically
24 through the shale pay zone. This

1 in New York State." I hope it
2 continued to be unexplored since the
3 current DEC website says of sewage
4 and wastewater treatment facilities
5 in New York State, "one quarter of
6 the 610 facilities in New York are
7 operating beyond their useful life
8 expectancy and many others are using
9 outmoded, inadequate technology,
10 increasing their likelihood of
11 tainting our waters."

12 On injection wells, the 1992
13 GEIS says, "most formations in New
14 York State are relatively tight and
15 do not readily accept injections
16 fluids." This seems to suggest that
17 millions of gallons of produced water
18 have nowhere to go.

19 On DEC staffing the 1992 GEIS
20 has the following to say,
21 "Pre-drilling site inspections have
22 been conducted for every well permit
23 application since 1982 when money
24 from the higher permit fees

1 authorized by the amended Oil Gas and
2 Solution Mining Law made it possible
3 to support additional inspection
4 staff." For example, "in 1982 brine
5 from a gas well destroyed 13 acres
6 when an operator deliberately
7 discharged brine down a ditch
8 directly into a wetland.
9 Fortunately, no discharges like this
10 have occurred since the Department
11 acquired more staff and has increased
12 the frequency of drilling
13 inspections."

14 As the Division of Mineral
15 Resources met initial staffing
16 requirements in 1982. According to
17 the table, 18.1, there were 2,969
18 operating gas wells in 1982 when
19 staffing requirements were met. By
20 1986, the last year included in the
21 table, there were 5,038. Today
22 according to the scope there is
23 6,683. There seems to be five
24 occasions when the DEC requires to

1 visit a well. Pre-permitting, case
2 cementing, drilling, plugging, site
3 restoration, more visits are
4 certainly desirable.

5 In July of 2004 Environmental
6 Advocates of New York reported that
7 the DEC was operating with 700 fewer
8 employees than it had when Governor
9 Pataki took office in 1995. In a
10 memorandum Commissioner Crotty stated
11 that the DEC's fill level, which is
12 the number of full-time employees,
13 was 3,218, 112 full-time employees
14 below the recommended level of 3,330
15 contained in the state budget for
16 fiscal year 2004/5. More than 800
17 below the 1994 fill level.

18 In a 2002 report issued by
19 State Comptroller Arnold Hevesi
20 stated that 38 percent of the DEC's
21 workforce, over 1,400 employees, are
22 eligible for retirement in 2007. It
23 would seem the DEC is woefully
24 understaffed for the proposed

1 proliferation of gas wells. Today I
2 have traveled 40 miles from
3 Downsville to appear here. We had
4 requested additional hearings in New
5 York City watershed and New York
6 City, but have been told that there
7 are insufficient DEC staff to make
8 that possible. To quote our most
9 recent letter to Commissioner
10 Grannis, "if there are insufficient
11 DEC staff to hold hearings, we
12 despair of there being enough staff
13 to properly monitor the proposed gas
14 drilling." Thank you.

15 ALJ: Richard Everett.

16 PUBIC: He isn't here.

17 ALJ: Annemarie Garti. After
18 Ms. Garti, we'll hear from Dr. Ronald
19 E. Bishop.

20 PUBIC: Hi, my name is
21 Annemarie Garti, I was born in Delhi,
22 New York and I have a house in East
23 Meredith, about 20 miles from here.
24 This is the eighth time in my life

1 that I have spoken at a scope meeting
2 hearing. I think they are wonderful
3 events, they're a true art of
4 democracy and they only exist because
5 there's a Federal law that requires
6 them and there's been a State law
7 called SEQRA which requires them and
8 the State Law is administered by the
9 DEC. So most of my comments tonight
10 are actually addressed to the DEC
11 about what they have and haven't done
12 and how they have done it in their
13 draft scope report. I have seven
14 pages, so I'm not going to read it,
15 I'm just going to try to summarize
16 this.

17 First, I want to state to the
18 DEC that I am asking you to play
19 fairly. I don't believe that -- I
20 believe that there are many
21 indications that you're not intending
22 to do so, that you're the fox
23 guarding the hen house and that's
24 already been shown in the scope FERC

1 because according to the rules and
2 laws that the DEC is supposed to
3 enforce in Section 617.8 of the
4 SEQRA, when anybody does a scope
5 report they're not only supposed to
6 give a table of contents, they're
7 also supposed to list the information
8 that they currently have and any
9 required new information, including
10 the required methodologies for
11 obtaining new information. No place
12 in all 45 pages of this scope of work
13 is there any indication of how the
14 DEC is going to require any new
15 information or their methodologies
16 for requiring that new information.
17 I believe that -- in Section
18 617.8(f)(4) -- that was from Section
19 6178(f)(3). In 4 it says they're
20 supposed to initially identify any
21 measures which also are not mentioned
22 in the EIS -- in the scope work.

23 So my request -- my first
24 request is that the DEC accept

1 everybody's comments, do a new scope
2 of work which has the methodologies
3 included in it. How you're going to
4 get this information, how you're
5 going to study this, so that we can
6 comment on the most critical aspect
7 of this which is how the fact find is
8 going to take place. Then everybody
9 be allowed to read comments on that
10 new scope of work.

11 The other thing that I found
12 is that the -- there are many
13 assumptions that pervade the writing
14 in the scope of work and those
15 assumptions have no justification,
16 they're just assumptions, they're just
17 opinions. I have seven of them and
18 I'll try to quickly go through maybe
19 three or four of them. The first one
20 which other people have touched on is
21 that the most pervasive one is a
22 supplement to a 20 year old draft and
23 final GEIS will be sufficient to
24 protect the environment of half of

1 the State of New York from an
2 entirely new form of gas drilling.
3 The fact is a new GEIS is needed to
4 study the full impact of the new
5 drilling techniques. I think that
6 that's kind of been covered. I did a
7 download of a document and read the
8 1988 and 1992 draft and final GEIS, I
9 did word searches. The word
10 horizontal does not appear once, I
11 guess horizontal leap appears once in
12 some table. The word horizontal does
13 not appear once in the multi-volume
14 document that was done 20 years ago.
15 The words hydro-frac -- the word
16 fracturing appears twice in all of
17 these volumes and hydraulic
18 fracturing appears six times. In all
19 these cases, fracturing is in
20 reference to vertical wells, not
21 horizontal wells and there is a
22 tremendous difference in that. So --
23 also in the old GEIS anticipated
24 fracturing pressure for vertical

1 wells was 2,000 to 3,500 pounds per
2 square inch. The new technique is
3 8,000 pounds per square inch, so I
4 think they should start calling it
5 high volume, high pressure hydraulic
6 fracturing. You have to start
7 imagining what this stuff is really
8 going to do. A square inch is like
9 the size of two of my thumbs and
10 8,000 pounds is about five of my
11 cars. So you would have to be
12 putting the pressure of five of my
13 cars on two of my thumbs and that's
14 what they're going to be pushing into
15 the earth against the cement that
16 they assure us is going to hold in
17 all instances, not only once, but
18 many times when the fracture. That's
19 the kind of things that you have to
20 start envisioning to understand.
21 When they do horizontal wells, drill
22 holes, they don't case them, they're
23 fracturing through open holes.

24 So I want to -- I'm going to

1 switch here to another one,
2 assumption of report. The DEC
3 assumes that toxic materials cannot
4 migrate from horizontal drill holes,
5 through layers of shale into water
6 supplies, soil or air. The fact is
7 that geologists acknowledge that the
8 layers of shale are filled with
9 vertical cracks and fissures. In
10 some places these layers have been
11 displaced so that the angle of
12 sedimentation is no longer
13 horizontal, but folded in angles 45
14 degrees or more towards the surface.
15 So all this stuff that we're talking
16 about is just debris, it's just
17 debris, it's just all compost down
18 there and it's not solid rock. It's
19 filled with holes, cracks, fissures
20 and that's -- in fact that's what the
21 gas companies want to take advantage
22 of, they want to take advantage of
23 these cracks. So the DEC actually
24 says -- said in their 1988 DGEIS,

1 chapter 10, pages four and five;
2 "once gas escapes from the wellbore
3 it can travel considerable distance,
4 either laterally or vertically and
5 through natural fractures, reach
6 surface or infiltrate a water zone.
7 Gas in an aquifer can enter the water
8 wells which tap it. The presence of
9 gas in a water well presents a safety
10 hazard. The gas can accidentally be
11 ignited at the water tap or can build
12 up inside the house in explosive
13 quantities."

14 Now the DEC reassures us in
15 section 2.1.2, they say in the scope
16 of work, "The Department has no
17 record of any documented instance of
18 groundwater contamination caused by
19 hydraulic fracturing for gas well
20 development in New York, despite the
21 use of this technology in thousands
22 of wells across the State during the
23 past 50 or more years. Division of
24 Mineral Resources staff responsible

1 for permitting and oversight of gas
2 well drilling since 1980 also do not
3 recall any such instance." By making
4 this claim the DEC is assuming that
5 staff recall and Department
6 documentation of groundwater
7 contamination are complete and
8 fulfill the requirements of SEQRA.
9 Well they don't, in fact, those tests
10 have never been performed to find out
11 whether or not groundwater
12 contamination has ever occurred.
13 That's the kind of study that the DEC
14 has to undertake. In addition, as
15 stated in assumption number one, New
16 York State has no experience,
17 whatsoever, with hydraulic -- with
18 horizontal drilling and high volume,
19 high-pressure fracturing. So the
20 claim of having used this technology
21 for over 50 years is erroneous and
22 misleading.

23 So I talk a little about that,
24 I think I made the point here.

1 Assumption number three, the DEC
2 assumes that because all well casings
3 may protect groundwater supplies in
4 vertical wells, they will also do so
5 in horizontal wells that will be
6 fracked and refracked at much higher
7 pressure, with greater amounts of
8 water and sand and other chemicals.
9 The fact is, as we all know, concrete
10 breaks down particularly under stress
11 as anyone can observe in foundations
12 and sidewalks. When you go down
13 quickly maybe they've had a perfect
14 record and maybe they haven't, but
15 nobody knows what's going to happen
16 now and the only place we can find
17 out is in other states, so we ask you
18 to study what's been going on in
19 other states and to bring that
20 knowledge and experience back to New
21 York.

22 For my fifth assumption, I'll
23 stop at this one. In section 4.1 of
24 the scope on noise, visual and air

1 quality impact, the DEC refers to the
2 old GEIS. Where these impacts are
3 described "in terms of both the short
4 duration in well drilling phase, when
5 well site is, in effect, a small
6 construction site and a long-term
7 production phase when such impacts
8 are drastically reduced because the
9 equipment used during drilling
10 operation is removed and the areas
11 not needed for production operations
12 are reclaimed." Okay, so basically
13 they're saying, we don't have to
14 worry about the long term because
15 they come in and they drill, it
16 doesn't take very long and then they
17 take it out, away and then everything
18 is peaceful and quiet again, so don't
19 worry. The fact is that the
20 construction phase of drilling and
21 fracking deep horizontal wells is
22 likely to be long term and
23 continuous, so these old construction
24 and production phases no longer

1 apply. A number of things make the
2 assumption in the GEIS totally out of
3 date. The new spacing rule allows 16
4 well heads per square mile which has
5 been there since before. So everybody
6 think about where they live and the
7 mile around them -- around your house
8 and who might be leasing their land
9 within that mile and how you might be
10 forced into it even if you don't want
11 to. That's how many wells can be
12 drilled, every place in Delaware,
13 Otsego Counties and half the State of
14 New York.

15 Second, the amount of
16 materials needed to frac each well
17 has increased exponentially, so the
18 assumptions from before don't hold.
19 The amount of pressure needed to frac
20 low permeable shale is three to four
21 times what was needed for vertical
22 wells. The amount of time needed to
23 drill and frac each well has
24 quadrupled from one or two weeks to

1 four, five, or six weeks per well, 16
2 wells per square mile, a thousand
3 square miles in Delaware County.
4 Horizontal wells in shale have low
5 pressure and frequently need to be
6 refracked, so they don't just come in
7 once. They come in, they do it, the
8 gas produces for a while, they come
9 in and they do it again and they do
10 this over and over again.

11 Horizontal wells often need
12 compressors during the production
13 phase and these noisy machines run 24
14 hours a day, seven days a week. It's
15 likely that a property owner, think
16 about the mile around you, will be
17 suffering the impacts of the well
18 drilling in one spacing unit for over
19 a year. They don't have 16 drills to
20 bring in, they have one drill. So
21 lets say they're doing 16 wells right
22 around you, they come in, they dig
23 one, it takes one and a half or two
24 months, to do 16 you're talking about

1 a year's worth of hydro-fracking just
2 in your unit. When they take the
3 drilling rig away, then they bring
4 the compressors in. If you thought
5 the rigs were bad, listen to the
6 compressors, oh, 24 hours a day,
7 seven days a week, no holidays.

8 So since the environmental impact for
9 high volume, hydro-fracturing
10 drilling are repeated and long
11 lasting they require a totally new
12 environmental review. In New York
13 State the details on what should be
14 studied in terms of noise, air
15 quality and other issues so that's
16 included in the document that I have
17 submitted. Thank you very much.

18 ALJ: Ronald Bishop. After
19 Mr. Bishop we'll hear from Kathleen
20 Klopehim.

21 SPEAKER: Hi, I'm Ron Bishop,
22 I live in the town of Middlefield,
23 not far from Cooperstown. I applaud
24 Governor Paterson's and your decision

1 to re-examine New York State's
2 Generic Environmental Impact
3 Statement on the Oil, Gas Solution
4 Mining Regulatory Program in
5 anticipation of producers' herculean
6 efforts to extract natural gas from
7 low permeability sources, like the
8 Marcellus and Utica shales that
9 underlie my home and probably yours
10 as well. My purpose in writing to
11 you and speaking here today is to
12 strengthen the Supplemental Generic
13 Environmental Impact Statement in two
14 ways. First discussing potential
15 impacts of new activities or
16 technologies, much which have gone on
17 before us and pointing out
18 assumptions that were made in the
19 1992 Environmental Impact Statement
20 that I suggest should either be
21 verified, modified or abandoned as
22 available evidence will direct you.

23 I appreciate the opportunity
24 to contribute to this public

1 discourse. My major point of view is
2 that as a chemist and a biochemist
3 with over 27 years of government,
4 industrial and academic experience,
5 as a scientist, I would like to
6 mention you this, I was doing a
7 conference with some of the friends I
8 met through the group called
9 Unsustainable Otsego. I introduced
10 myself, hi, I'm Ron Bishop, I'm a
11 chemist and a woman in the room
12 blurted out, oh, what oil company do
13 you work for? I bring that up for --
14 I'm used to that because I'm a
15 chemist and we get this sort of thing
16 all the time. Those of you in the
17 DEC who serve us have to understand
18 there is a higher level of suspicion
19 whether you personally have earned it
20 or not and if you don't want that
21 suspicion you will need to earn
22 people's trust and respect, just like
23 I have.

24 Now my comments are condensed, as

1 many have already been addressed and
2 some of them are a little more
3 technical to go into here and I'll
4 make summaries of those. Section
5 2.1.2, hydraulic fracturing. The
6 draft scope document alludes to the
7 recent slick water fracturing
8 technology that's favored by
9 horizontal well producers in other
10 states, but no assurance is offered
11 that this technology will actually be
12 favored here. So it wouldn't be
13 unreasonable to suppose that the old
14 additives would be used in this
15 state, no matter what we saw in the
16 scoping document. Now, additives
17 like water gum or even borax that's
18 used as a cross linker, may not be so
19 bad, but I strongly recommend an
20 absolute prohibition of any diesel
21 fuel use for drilling or stimulation.
22 In this context I'd also like to
23 point out that other additives, like
24 dimethylformamide or propargyl

1 alcohol and thiourea which is
2 corrosive materials, ammonium
3 bisulfate which is an oxygen
4 scavenger also helps to deal with
5 corrosion and citric acid which is an
6 iron stabilizer will still be needed
7 even with slick water applications.
8 However, the amounts that would be
9 used would be vastly, vastly greater,
10 like she mentioned, than for vertical
11 wells, simply because of the fluid
12 volumes involved is so much greater.
13 So you combine this consideration
14 with the increased amounts of
15 material that are left unrecovered
16 from horizontal wells.

17 Another problem with the GEIS,
18 an assumption that only 30 percent is
19 left in the ground. Actual testing
20 proves it to be closer to half, 50
21 percent. So combine this idea that
22 we have such majorly increased
23 amounts of material that are left in
24 the ground following these fracturing

1 operations and the implied assumption
2 that additional fracturing additives
3 will contribute no significant
4 additional impacts to those in
5 Delaware in Chapter 9 of the 1992
6 GEIS is difficult to justify.

7 Now concerning the slick water
8 technology. A lot of people are
9 saying, we don't know what's in
10 there. Well, I'm a chemist and I
11 have ways. My review of the industry
12 trade journals and patents points me
13 to one dominant class of compounds,
14 quaternary ammonium salts, they will
15 be probably favored for multifunction
16 additives for slick water fracturing.
17 One set of options would be tragic
18 and they would be a group of
19 compounds you might call acrylates.
20 Acrylates are violently toxic,
21 especially to the central nervous
22 system. The extra hydrochloric acid
23 that's required to make them
24 polymerize in the ground would be

1 even more than is used in
2 conventional acid pre-treatments of
3 these wells that you all have read
4 about. Which, in my view, is a major
5 step backwards in respect to
6 environmental conservation.

7 So I realize government
8 agencies need to avoid regulating
9 state of the art, but I cannot
10 imagine conditions under which
11 accolades can safely be used in
12 hydro-fracturing operations. Even
13 though they have been used in other
14 states up till now, probably because
15 they're cheaper than some of the more
16 -- the less toxic alternatives. A
17 different quaternary compound is
18 probably a better alternative as --
19 known sometimes as EHMAL or as
20 Schlumberger/Halliburton said, clear
21 frac. Used as 50 percent solution in
22 2-propanol appears to be only mildly
23 toxic. However, you also have to use
24 sodium salicylate in the temperature

1 of fracturing operations must have
2 been done with coalbed methane not
3 with shale like we have. From what
4 I'm beginning to find out two to
5 eight percent of slick water fluid
6 that would be used around here is
7 composed of organic chemical
8 additives. Another four to six
9 percent is inorganic salts, like
10 calcium chloride, potassium chloride.
11 And proppant which is usually sand,
12 comprises from one to over 30
13 percent. The truth is in practically
14 no instance I could find is
15 fracturing fluid anywhere near 99
16 percent fresh water. It has never
17 been hailed as anything but a toxic
18 fluid.

19 2.1.2.1, fluid handling at the
20 well site. Whether tanks or lined
21 pits are used to manage flowback
22 fluids. The high pressure associated
23 with deep wells and the incredible
24 abrasiveness of these salt and

1 sand-laden fluids are always going to
2 propose major challenges to their
3 control. I certainly favor the use
4 of tanks for all these fluids, but
5 how are we going to corral the sand
6 and salt made in fluid coming out of
7 the well at high pressures is a
8 problem no one has yet adequately
9 described how they are really going
10 to solve all the time. Certainly, of
11 course, dikes should continue to be
12 required around storage tanks. In
13 addition you might consider trying to
14 foster the use of proppants which are
15 less abrasive than sand, such as
16 low-density ceramic or plastic beads
17 which are also easy to suspend.

18 2.1.2.2, fluid removal from
19 the well site and alternate
20 disposition of returned fluids. The
21 idea of reusing or recycling drilling
22 and fracturing flowback fluids makes
23 lots of sense in the context that
24 these fluids should always be handled

1 as hazardous waste anyway. However,
2 this kind of recycling is found to be
3 technically feasible, would only be
4 granted and adopted by producers as a
5 major cost saving advantage to them.
6 Therefore, I recommend permitting the
7 practice rather than requiring it. I
8 think that requiring producers to
9 develop and report specific disposal
10 plans before drilling is a great
11 idea. Particularly if those plans
12 include anything like the municipal
13 waste treatment plants. In addition
14 I think that keeping the DEC and
15 local officials apprised of waste
16 treatment options is an important
17 corollary to this kind of regulation.
18 We want to know beforehand what
19 they're putting in the ground, what
20 they expect to get out of the ground,
21 how they plan to treat it and be
22 up-front with us about the
23 concentrations and amounts.

24 Natural gas production, 2.1.4.

1 I'd like to stridently caution that
2 diffusers should never be used to
3 concentrate the contents of pits
4 prior to their reclamation, as has
5 been done in other states. The
6 aerosols produced have been
7 convincingly implicated in inhalation
8 injuries to livestock and
9 bystanders.

10 PUBLIC: Bravo.

11 PUBLIC: Well plugging, 2.1.5.

12 In these times of financial
13 insecurity and wild market
14 fluctuations, I strongly recommend
15 requiring that all operators be
16 bonded. In addition, I recommend
17 treating pipes and equipment that are
18 removed from wellborers as hazardous
19 materials unless and until they are
20 proven otherwise.

21 2.1.6, well density. I know
22 it's the law of the land, but I am
23 not one bit happy with compulsory
24 inclusion, especially with the

1 standard for minerals rights leasing,
2 as well as 60 percent of the
3 extracted subterranean again. I'm
4 not sure what you can do about that,
5 but I'm not happy.

6 Now for anyone who lives or
7 works nearby, the prospect of
8 adjusting to multiple horizontal
9 wells being drilled from a single pad
10 is grim indeed. That's already been
11 addressed by others. My greatest
12 concern is with management of access
13 or spills that can occur at such a
14 site. The sustained, intensive wear
15 on infrastructure in the vicinity
16 poses grave risk for compromised
17 culverts, weakened bridges, degraded
18 road surfaces and other impediments
19 to emergency service vehicles that
20 may need access. These conditions
21 themselves may precipitate accidents,
22 possibly involving trucks hauling
23 hazardous materials. The eventual
24 benefit or fewer overall well pads

1 may come at a higher price.

2 Three, Geology. I am not a
3 geologist, we have someone, who I
4 believe, here in attendance, who will
5 speak in a few minutes. However,
6 I've been able to look into some of
7 these issues and I am encouraged that
8 you plan to evaluate Marcellus shale
9 for naturally occurring radioactive
10 materials. Since the 1990 study that
11 was referred to in the 1992 GEIS, and
12 its followup 1999 study, all 86 pages
13 of it, did not include a single
14 sample from the Marcellus formation.
15 From evidence reported in 2004,
16 Marcellus shale is known to be
17 significantly radioactive. Further,
18 testing of homes in and near
19 Marcellus, New York, that's the
20 outcropping near there that gave this
21 formation its name, a testing of
22 homes there reveal radon levels from
23 three and a half to seven times the
24 national average -- the state

1 average, levels well above the EPA
2 action limit. Therefore, some
3 elevated levels of naturally
4 occurring radioactive materials
5 should be expected for horizontal
6 drilling operations in these shale
7 formations. I urge you to evaluate
8 the results of your current studies
9 by Nuclear Regulatory Commission
10 standards that call for exposure
11 levels as low as reasonably
12 achievable. Not by comparison to the
13 extraordinary radiation levels
14 associated with the North Sea oil and
15 gas extracted as alluded to in that
16 1999 study that you cited on page 17
17 of the scoping document, we're not
18 the North Sea. Similar studies have
19 not been carried out on Utica shale
20 at all and they should be. Further,
21 effluents from all Marcellus and
22 Utica shale wellbores should be
23 monitored for radiation and the
24 result should be documented as

1 routine procedures.

2 Now, I am really alarmed at
3 the large number of potential well
4 site leases that have already been
5 signed in northern Otsego County. As
6 mentioned above, Marcellus shale
7 surfaces in Marcellus, close to
8 Otsego County, and along a line
9 roughly traced by U.S. Route 20
10 eastward through Cherry Valley and
11 appears close to here and in some
12 studies moves on to Schenectady, in
13 some contrast survey maps out there.
14 Recent geological reports, partly
15 written by NYSERDA, that is from
16 2007, indicate that the formation
17 dips only 2,000 feet beneath Otsego
18 and Canadarago Lakes and thence
19 approximately 3,000 feet under
20 Oneonta. This is a little shallower
21 than the early estimates. Utica
22 shale lies an average of 600 feet
23 below the Marcellus. With cracks
24 stimulated by hydraulic fracturing

1 extending sometimes over 2,000 feet,
2 the margin of safety that was assumed
3 because of the great depth and
4 multiple impermeable rock layers
5 lying between the Marcellus and Utica
6 shales and the surface, breaks down
7 in the middle to northern region of
8 our county and our neighbors as well.
9 Their nearness to subsurface aquifers
10 makes any kind of high pressure
11 stimulation unsafe in view of the
12 hydro-fracturings unpredictability
13 that was again put out by a Hydro
14 Group in 2007. This siting issue was
15 not at all addressed in Chapter 8 of
16 the 1992 GEIS and I strongly urge you
17 to address it in the supplement.

18 4.1, noise, visual and air
19 quality impacts. In contrast with
20 the scoping document's focus on well
21 pad activities and appearances, I
22 predict that the greatest visual
23 impacts from horizontal drilling and
24 high-pressure fracturing operations

1 will arise from degraded roads,
2 culverts and bridges in the areas of
3 operation. Oil and gas producers
4 typically repair roads after
5 extraction operations are completed,
6 if at all, and this from a Bartlett
7 Shale Energy Education Council, a
8 pro-drilling counsel from the Fort
9 Worth area of Texas. In view of the
10 paucity of local legal frameworks for
11 interacting with heavy industry,
12 transportation problems will probably
13 persist for years or decades, not
14 weeks. Air quality impacts from the
15 same sources should also be expected
16 to persist, barring some miracle of
17 state intervention to rebuild our
18 local infrastructure. These specific
19 concerns are essentially not
20 addressed in Chapter 15 or 16 of the
21 1992 GEIS or in this section of the
22 supplemental scoping document.

23 4.2.1, water withdrawals. A
24 lot of people talked about decreasing

1 of surface water, I am somewhat less
2 concerned about that, but again I'm
3 not a hydrologist. I'm hoping my
4 friend over here who is one will get
5 a chance to address this.

6 Alternatives to fresh water use, such
7 as water treatment plant effluents
8 and cooling water might be welcomed
9 by producers, but you would have to
10 be careful that unused water from
11 these sources would not be disposed
12 of in our fresh water bodies. I urge
13 stringent measures to prevent any
14 transmission of chemicals or
15 organisms from one water body to
16 another. My greatest concern with
17 water drawdowns actually has to do
18 with the cumulative effect on
19 groundwater -- on water tables. As
20 groundwater subsides and is then
21 recharged, the likelihood of
22 circulating drilling fluids that were
23 not behind down there and other toxic
24 wastes produced from wells can be

1 trapped, in some cases, the not so
2 distant rock layers of the drinking
3 water sources, is multiplied because
4 of the mixing effect on the
5 groundwater -- the water table going
6 up and down. I found this issue
7 addressed really unconvincingly in
8 the 1992 GEIS in the form of
9 theoretical models for groundwater
10 movement in Appendix 3. In the
11 absence of empirical data, I think
12 that no conclusions such as poses no
13 risk, should ever be drawn with
14 respect to such a momentous
15 consideration. Yet they have to get
16 their conclusions.

17 4.2.3, surface water quality.
18 Chapters 9 and 10 of the 1992 GEIS
19 deal with the control of erosion in
20 the vicinity of well pads, but they
21 do not discuss more widely scattered
22 problems with byway culverts and
23 bridges. As mentioned above, I view
24 these as likely trouble spots with

1 respect to visual and air quality and
2 certainly anticipate erosion-related
3 surface water quality issues as well.
4 Unfortunately, baseline values for
5 aquatic chemistry or organisms,
6 birds, fish, amphibians, reeds or
7 benthic macroinvertebrates are not to
8 my knowledge available for most of
9 our sub-watersheds. I don't know
10 that they can be generated in a
11 timeframe of months. Even so I urge
12 you to broaden the scope of your
13 review to a wide range of problems of
14 overtaxed infrastructure and the
15 burdens they will impose on our
16 surface water.

17 4.8, community character. Not
18 to negate the potential benefits of
19 natural gas extraction in our region,
20 I believe you may have underestimated
21 the large deleterious influences of a
22 large number of non-local workers.
23 You see we don't have major human
24 resources here in extraction

1 industries, increased illicit drug
2 use and availability and the
3 concomitant increased demands on the
4 law enforcement and medical
5 professionals. These are widely
6 reported in locales where the scale
7 of extractions proposed here has
8 already taken place. These
9 influences should by no means be
10 expected to result in a timeframe of
11 weeks or months. Now one mechanism
12 the DEC might employ to prevent this
13 looming descent into mayhem would be
14 to coordinate the pace of well
15 permits with police, judiciary and
16 medical services to limit their extra
17 workloads to manageable levels.

18 5.1, public and local
19 government participation. With
20 participation of local government
21 limited to regulating use of roadways
22 and municipal water services because
23 the DEC takes the agency status in
24 essentially everything else, many of

1 our town and village authorities
2 appear to be poorly equipped for
3 balancing the needs and interests of
4 natural gas producers and local
5 citizens. No comprehensive
6 development plans are in place or
7 nearly none. Many of our byways have
8 been evaluated for weight and other
9 traffic limitations, few local
10 ordinances exist to regulate bonding
11 or cooperative agreements between
12 townships and corporations and our
13 county representatives appear to be
14 locked in the paralysis of analysis.
15 Regionally we are not ready for the
16 heavy industry of natural gas
17 extraction in the Marcellus and Utica
18 formations.

19 I sojourned for several years
20 in the great State of West Virginia.
21 Long enough that I really and truly
22 appreciated the unique culture there.
23 One instance of that culture,
24 practically every local person I met

1 possessed detailed knowledge of coal
2 mining and many of those individuals
3 were employed by that industry.
4 However, the benefits of their
5 personal knowledge and private income
6 failed to compensate utterly for the
7 regional destruction of communities,
8 ecosystems and infrastructure. They
9 learned too late how to manage an
10 aggressive extraction industry
11 without ruining some of their most
12 precious assets and they're still
13 paying for their early mistakes
14 today.

15 Amid the eager participation
16 of bold new developments in our
17 region that may have the potential to
18 rejuvenate our economy, increase our
19 energy self-sufficiency and raise
20 national profile in Central New York,
21 I am compelled to plead for a
22 measured, deliberate plan of action
23 that begins with a temporary, at
24 least one year moratorium, on the

1 Marcellus and Utica shale.

2 I know there's a lot of
3 pressure to move faster rather than
4 move slower. This time should not be
5 viewed as a time of reaction, but
6 rather as an opportunity for
7 citizens, state and local officials
8 to collaborate on a course towards
9 hosting the natural gas extraction
10 industry more safely and more
11 effectively than has ever been done
12 before. If we choose such a course,
13 no bells will ring and no reporters
14 will notice, no offense to you guys,
15 because they're much more attracted
16 to calamity than to sanity. However,
17 if we rush unduly into this scale of
18 industry, we'll have plenty of
19 excitement here, international
20 exposure and a name for ourselves,
21 but not a name we would choose.
22 They'll call us the New Appalachia.

23 Thank you for your attention.

24 ALJ: Kathleen Klopehim, then

1 we'll hear from Dan Arthur. I would
2 just -- I just want to point out, Dr.
3 Bishop's comments were really
4 excellent, I thought and really
5 focused to specific sections of the
6 scoping document, but I would just
7 ask that I've got 30 or 40 cards, I
8 really would like to give everybody
9 the opportunity to speak. So if you
10 have a lengthy statement, I would ask
11 you please summarize it. I don't
12 want to put a time limit on this,
13 folks, I really don't, but I want to
14 make sure that everybody has the
15 opportunity to be heard, so thank
16 you. Kathleen, it's all yours.

17 PUBLIC: My name is Kathleen
18 Klopehim and I'm a member of the
19 Chenango, Delaware, Otsego Gas Group.
20 I'm exhibiting three items as scoping
21 comments for the Supplemental Generic
22 Environmental Impact Study. Those
23 are our initial response to what are
24 well complaints and water well

1 construction, preservation of Native
2 American cultural sites and the
3 landscape around them and something
4 -- I'm just going to keep this to
5 first for the public comments
6 session, the initial response to our
7 well complaints and our water well
8 construction.

9 In the 1992 GEIS the DEC
10 stated, "the initial response to
11 water supply complaints is best
12 handled by the appropriate local
13 health office which has expertise in
14 dealing with water supply problems."
15 Included in this section regarding
16 complaints about individual household
17 water supply problems, page 15-5, it
18 states, "the lack of mandated
19 approval for individual water supply
20 system construction also complicates
21 complaint investigations. The
22 Department of Health and most county
23 health departments will not sample
24 well supply systems with substandard

1 construction because poor
2 construction can facilitate the
3 movement of contaminants into water
4 supplies and water quality in these
5 systems dramatically change in
6 response to conditions such as recent
7 precipitation." With respect to the
8 final scope, first the scope must
9 evaluate if the County Department of
10 Health has the staff and the
11 education to respond to initial water
12 well complaints related to natural
13 gas drilling. The DEC has made it
14 clear that the local government
15 jurisdiction is over local roads or
16 the right to collect real property
17 taxes only. Yet the County
18 Department of Health will be
19 responding, initially, to water well
20 complaints. So, as an alternative
21 perhaps water well complaints within
22 some immediate distance of a gas well
23 should probably be studied by the
24 DEC, should be handled initially at

1 the state level instead of county
2 level. In either case further study
3 needs to be done to assess the
4 handling of water well complaints
5 related to gas drilling.

6 Second, what must be
7 readdressed is this section from the
8 1992 GEIS which states, "to better
9 protect the integrity of individual
10 water supplies, the DEC Upstate Grand
11 Water Management Program recommends
12 the enactment of a state water well
13 construction code and legislation for
14 the licensing of water well
15 drillers." Water wells driller,
16 since January 1, 2003 are required to
17 have passed a certification exam.
18 The majority of water wells in New
19 York State, however, have been
20 drilled with no certified well
21 driller on site and no state water
22 well construction code enforced.
23 Water wells within a certain distance
24 around a gas well site, needs to be

1 studied by the DEC or inspected prior
2 to commencement of gas drilling to
3 ensure the water well construction is
4 sufficient to protect the water well
5 supply from contamination problems
6 from either spills, run-off, drilling
7 or hydro-fracturing. If not, what
8 protections do private water well
9 owners who are not leased with the
10 gas company have to ensure that their
11 well water will be protected
12 regardless of the construction of
13 their well.

14 Finally, I would like to
15 submit that an unacceptable response
16 to these questions would be such that
17 natural gas well casing is sufficient
18 to protect all groundwater supplies.
19 The DEC raised these arguments in the
20 1992 GEIS, there is no change in gas
21 well drilling or gas well case
22 requirements to repudiate the matter
23 of water well construction. This
24 issue is still outstanding and must

1 be studied and addressed especially
2 for those water well owners prior to
3 January 1, 2003 who are not required
4 to have a certified well driller on
5 site during construction. Thank
6 you.

7 ALJ: Dan Arthur. After Mr.
8 Arthur we'll hear from Antoinette
9 Kuzminski.

10 PUBLIC: Good evening, my name
11 is Dan Arthur, I am from ALL
12 Consulting. I am here tonight as
13 part of the technology transfer
14 effort in relation to the information
15 that we've been gathering through
16 U.S. Department of Energy Research
17 Project on modern shale gas
18 development in the United States,
19 including the Marcellus shale.
20 Involved in this project has been the
21 northeast, I've provided some
22 information on the research work that
23 we've done.

24 We're here really on two

1 purposes. One, to share information,
2 two, to listen, so a lot of the
3 comments we've heard tonight have
4 been very helpful and we're also
5 encouraged to come tonight and share
6 some of this information by
7 Chesapeake Energy. So, a lot of what
8 I'm going to talk about tonight is
9 real specific to hydro-fracturing and
10 really to present some findings we've
11 had from some of our research. I
12 have provided a number of papers and
13 some information to the DEC for
14 further examination.

15 So first, in looking at
16 hydraulic fracturing in New York,
17 it's important, I think to understand
18 that hydraulic fracturing has a long
19 history here. Initial hydraulic
20 fracturing was used in oil and gas
21 and salt solution mining industry in
22 the 1950s. Currently, about 90
23 percent of gas wells in the State of
24 New York, occurring naturally, are

1 conventional natural gas production
2 in the Appalachia region, volumes of
3 produced water and hydraulic
4 fracturing has been particularly less
5 than what may be needed for shale gas
6 development and hydraulic fracturing
7 of low permeable shale, but through
8 the research what we've found is that
9 in the Appalachia region there's been
10 certainly documented cases of high
11 volume hydraulic fracturing done or
12 produced water in additives or
13 freshwater in additives have been
14 used to hydraulically fracture
15 conventional gas wells using volumes
16 in excess of 1,000,000 gallons and
17 that was done as early, as we could
18 find, in the 1970s.

19 From the science perspective
20 and really a design perspective it's
21 important to know there is really
22 what we found and have seen through
23 our research in multiple gas drilling
24 states is that there is really a lot

1 of science and training that goes
2 into hydraulic fracturing. In the
3 research documents that we're doing
4 for the DUE and the number of papers
5 we're studying modern hydraulic
6 fracturing. So, as opposed to what
7 may have been done in the 1950s where
8 a simple fracture mechanism was the
9 intent to essentially make a larger
10 wellbore that could allow
11 hydrocarbons to come to the wellbore
12 and be produced. Current fracturing
13 in shale, the goal is to create a
14 complex fracture network. We've got
15 a shale down there that is not very
16 permeable and we're trying to create
17 unartificial permeability with a
18 complex fracture network. So,
19 imagine essentially we're hitting a
20 rock against safety glass and kind of
21 trying to set fractures in that glass
22 and that's really the intent or
23 design of how fracturing is done
24 today, it's, I think, a little bit

1 more well thought out. And as
2 fracturing goes along we've had
3 professors look at things like
4 geology, methodology, detriment of
5 environment, jointing. Dr. Lash and
6 Dr. Engelder looked at those things.
7 Going out and looking at outcrops of
8 Marcellus shale could be very
9 interesting, you can see a lot of
10 variations and those variations stem
11 variations in the hydraulic
12 fracturing specific processes on
13 lower level basis. Those also look
14 at before fracturing I mentioned
15 geology, pathology restructuring, the
16 thickness, the formation, fracture
17 pressures of not only the Marcellus
18 on what would be produced, but the
19 underlying, low lying formations to
20 see how they would be impacted so
21 that the fracture system could be
22 maintained within the production
23 zone. Furthermore, in what
24 we've seen and we havent found a case

1 where this has been done, where
2 modeling and simulation is done and
3 there's a lot of fracture simulation
4 models out there that engineers,
5 geologists, designers can use to
6 simulate a model fracture before they
7 ever do it, so that they can
8 specifically design a pretty
9 specifically designed result in
10 multiple state fracture treatments.

11 Some of the other things that
12 we did as part of the research is --
13 I'm a former U.S. Environmental
14 Protection Agency enforcement officer
15 and in that job, in the mid 80s, when
16 we were looking at underground
17 protection program, we looked at
18 risks that are not all that different
19 than some of the concerns expressed
20 now. So we looked at them then and
21 now and what potential pathways for
22 contamination could be to
23 groundwater, downward from spills and
24 so forth and vertically upward

1 through the formation, through the
2 casing that was involved.
3 Fortunately, New York, the DEC
4 requires casing cement to be done on
5 every well, so you have multiple
6 barriers of protection from anything
7 within the wellbore to a groundwater
8 aquifer. So through that
9 construction process, concrete isn't
10 used, it's cement geared towards,
11 used in oil and gas wells. The
12 other thing that I think is
13 interesting is if you look at
14 hydraulic fracturing, generally these
15 are a short-term thing. A single
16 hydraulic fracturing event or a stage
17 hydraulic fracture, single stage may
18 be concluded over a period of about
19 anywhere from 90 minutes to eight or
20 ten hours, for a single fracture job
21 to be done. Through that time, as
22 soon as that's done, the wells come
23 in, it's disassembled to allow
24 fractured flowback water back to the

1 tanks, the well is allowed to flow
2 back those tanks and within the
3 formation you create pressure sink.
4 That pressure sink, what that does is
5 that essentially allows fluids within
6 the formation to try to take really
7 the easiest path that it has, from
8 high pressure to low pressure and
9 that -- and by doing so any fluids in
10 the formation go towards the wellbore
11 and are produced. That's the basis
12 of water well production, of oil and
13 gas production and really any well
14 production process.

15 In looking at other concerns
16 expressed earlier about casing
17 cementing programs and water wells, I
18 think that's certainly an issue that
19 needs to be considered for all oil
20 and gas operations, for underground
21 fish control operations, for salt
22 solution mining, for nearly
23 everything. But also consider that
24 for any Marcellus play, a minimum of

1 five barriers of protection between
2 fluids within the wellbore to a
3 groundwater aquifer and that's
4 required through surface casing,
5 cement, production casing, cement and
6 tubing.

7 One of the other things that
8 we looked at in trying to just find
9 numbers on what potential risks there
10 may be, and this was done by a number
11 of programs, is to look at risk
12 probability of a failure or
13 contamination occurring through
14 casing and cemented well and in doing
15 that you look at -- for that to occur
16 you have to have multiple
17 simultaneously -- simultaneous
18 failures of both your casings and
19 cement. Through a study that was
20 done by the U.S. Department of Energy
21 and Air Control Institute in the 80s
22 in which the U.S. Department of
23 Environmental Protection Agency
24 assisted with, what they found for

1 that to occur, and this is on a
2 nationwide basis for injection wells
3 that are injecting 24 hours a day,
4 seven days a week, is that the
5 probability of a injecting reaching
6 an underground source of drinking
7 water would be a risk probability of
8 about one in 200,000 to one in
9 200,000,000 as far as the chance of
10 that occurring. So looking at the
11 probability of contamination to
12 drinking groundwater through an
13 injection well being that and if you
14 look at comparing injection, it's not
15 a direct correlation, but if you look
16 at experience injection to hydraulic
17 fracturing there are certainly
18 different offsets and subjection
19 occurred over long periods of time,
20 many years, hydraulic fracturing
21 occurs over a shorter amount of time,
22 but I think that the correlations are
23 certainly something to consider
24 through the scoping process.

1 One of the other things that
2 we did is we looked at two
3 alternatives of fluid -- fracked
4 fluid or produced water naturally
5 occurring in formations reaching an
6 underground source of drinking water
7 or usable quality groundwater
8 aquifer. What we did is we really
9 used two different things, we said,
10 if you maintain high pressure in the
11 production zone of the Marcellus
12 shale, how long would it take for
13 fluid to migrate through the rock
14 formations to get into usable quality
15 groundwater aquifer, assuming that
16 you had enough pressure for that to
17 occur. By going through the
18 strategic geology of New York the
19 relevant calculations, it would take
20 about 363,000,000 years. The other
21 thing that we did is that we looked
22 at, if on the Marcellus shale
23 formation if you were able to
24 maintain the fracture pressure at

1 8,000 PSI, if you were to do that
2 constantly, how long would that take
3 for those same fluids to reach usable
4 quality groundwater aquifer, that
5 calculation would come out to be
6 about 2.3 million years. So of
7 course, you certainly could do that,
8 but it's something for a frame of
9 reference. And also in that same
10 frame of reference keep in mind that
11 the U.S. Environmental Protection
12 Agencies, under the protect and
13 control program, they permit
14 throughout parts of the country
15 hazardous waste protection and
16 through that hazardous waste
17 protection program we have a lengthy
18 petition process that is ongoing,
19 again the operator has a lot they
20 have to go through and they would
21 have to demonstrate the ways that
22 they are disposing of waste in the
23 injection zone for 10,000 years. So
24 a little difference in order of

1 magnitudes.

2 Some of the information beyond
3 our basic comments that we did is
4 we're also providing some technical
5 papers, I don't know if those will be
6 available for public review, I hope
7 they will be, but let me tell you
8 what those are. The first is an
9 overview of Mine Shale Gas
10 Development in the United States and
11 really what this does is this is an
12 informational paper that talks about
13 basics of natural gas, unconventional
14 gas development, shale gas
15 development, regulatory frameworks by
16 which shale gas development in the
17 United States is regulated both on
18 the federal, state, regional, local,
19 as well as environmental
20 considerations. The second paper is
21 Hydraulic Fracturing Considerations
22 for Natural Gas Wells in the
23 Marcellus shale, the groundwater
24 protection councils meeting earlier

1 this year. One of the things that
2 does it goes through the fracturing
3 process, talks about fracturing
4 fluids and provides, I think, a lot
5 of good information that I hope will
6 be useful. The third paper is
7 Hydraulic Fracturing Considerations
8 for Natural Gas Wells of the
9 Fayetteville Shale. So one of the
10 things we hope to do, as part of
11 this, is provide information on other
12 shale ways and how things are being
13 done there, how hydraulic fracturing,
14 water management and so forth are
15 being used in other areas for
16 reference to the DEC and that paper
17 was presented at the International
18 Petroleum and Environmental
19 conference earlier this year.

20 The fourth paper, Evaluating
21 Environmental Implications of
22 Hydraulic Fracturing in Shale Gas
23 Reservoirs looks really at a number
24 of different environmental

1 considerations throughout the entire
2 fracturing process, surface handling
3 to the fracturing process and water
4 management thereafter. That was
5 given at the International Petroleum
6 and Environmental Conference.

7 The fifth one that I also hope
8 --

9 PUBLIC: How many papers do
10 you have?

11 PUBLIC: Last one.

12 PUBLIC: Thank you.

13 PUBLIC: The last one that I
14 hope is also considered within this
15 -- that I think was probably alluded
16 to in some earlier comments, was the
17 IGS, a paper called the Green
18 Development Practices for Shale
19 Control. Essentially what we do in
20 that is look at different types of
21 best natural practices, green
22 developing techniques that can help
23 to minimize the mitigating impacts of
24 natural gas development from shale.

1 Thank you.

2 ALJ: We have Antoinette and
3 Adrian, do you want to --

4 PUBLIC: We have different
5 statements. I am an internist, I
6 have been in practice in Cooperstown
7 for over 30 years and I think I'm the
8 only physician to have spoken so far.
9 I think I do have experience in
10 recognition of health hazards and the
11 degree of difficulty that the medical
12 profession has in recognizing these
13 health hazards. What I would like to
14 address today is the topic of the
15 safety of the water supply. In the
16 past five days I began to circulate
17 the following petition among 30
18 health officers of the villages,
19 towns and cities in Otsego County and
20 this is how it reads: To the County
21 Board of Representatives, We the
22 undersigned health officers of Otsego
23 County are gravely concerned in the
24 absence of adequate research and

1 testing about the public health
2 threat to the local aquifers and
3 surface reservoirs caused by
4 hydraulic fracturing method and
5 natural gas drilling. We urge you to
6 call a moratorium on this practice
7 until such time as robust methods are
8 in place to ensure that no
9 contamination of the water supply
10 will occur.

11 Now for me, as an individual,
12 and the over 30 health care
13 professionals that I approached were
14 eager to sign this. These health
15 care professionals are well aware of
16 the potential nightmare of dealing
17 with a contaminated aquifer. And I'd
18 like to point out, as a response to
19 the previous speaker's information
20 about the public health, they are
21 utterly unprepared to deal with this.
22 Our public health officer in the Town
23 of Bethfield, is way overworked just
24 dealing with the threat of rabies

1 control. There's no way he could
2 handle this.

3 In 2004 when the EPA released
4 its studies on hydraulic fracturing,
5 their conclusion was that there was
6 "no unequivocal evidence that this
7 process posed a health hazard to the
8 community." One year later, largely
9 based on this document, Congress
10 exempted this methodology from
11 federal oversight. I'd like to
12 discuss with you the difficulty the
13 scientific community has in
14 establishing unequivocal evidence of
15 harm. Every year the Food and Drug
16 Administration, an agency very
17 similar to your agency and I'm sure
18 is well intentioned, withdraws a few
19 medications from the market due to
20 health hazards which have been
21 detected after the drug was released
22 for use. These are drugs which have
23 been scrupulously tested under
24 controlled conditions before approval

1 and considered safe, but evidence
2 accumulates with prolonged use in
3 previously untested populations of
4 serious adverse effects and this
5 evidence is often murky and difficult
6 to sort out. Consider the fact that
7 it took 75 years to prove that
8 cigarettes caused lung cancer.
9 Absolute proof of cause and effect in
10 rural communities is difficult to
11 come by. When dealing with a
12 potential very damaging process, such
13 as hydro-fracturing, it's unequivocal
14 evidence is required for sanctions or
15 prohibition, it should be unequivocal
16 evidence of no mind.

17 Looking forward to underpaid,
18 understaffed agency reassuring us
19 about the health hazards here is
20 hopelessly naive to think that they
21 can do so. Let's just take a moment
22 to look at what is known about the
23 chemicals used in hydro-fracturing.
24 Because of the proprietary nature of

1 this process, we are not given any
2 access to assess the manner and
3 review of these compounds. What data
4 we do have is fragmented and largely
5 derived from the review of the
6 applications required for interstate
7 trucking from drill to drill site, in
8 the form of materials safety and data
9 worksheet, it's a notoriously
10 inadequate source, but that's all
11 that's available to us. A simple
12 catalog of these compounds shows that
13 many of them are already known
14 carcinogens and teratogens, that
15 means they are known to cause cancer
16 and birth defects. The potential
17 effect on long-term, even minimal
18 exposure to these substances in our
19 drinking water or in our air supply
20 could be devastating. Even though
21 the gas and oil industry wishes to
22 reassure us of the impossibility of
23 these chemicals entering our water
24 supply, we know that human technology

1 isn't perfect. Especially if it's
2 carried out while underground under
3 high pressures. Already there are
4 dozens of examples of contaminated
5 wells and even whole towns that have
6 food and water contaminated in
7 Wyoming and Colorado. To contend an
8 invasive method like hydro-fracturing
9 will never touch groundwater is
10 simply not credible.

11 Your agency is the sole body
12 and power to protect us, yourselves,
13 our children and grandchildren from
14 irreversible harm to our most
15 precious natural resource. I
16 encourage you as you review and
17 revise the rules for gas drilling to
18 place the burden of proof on the gas
19 drilling process and first require
20 unequivocal evidence of no harm to
21 our water supply. Such a policy
22 would need at least a moratorium on
23 gas drilling and given the limitation
24 of this technology, the more time for

1 scrutiny it is likely that your
2 agency will elect to prohibit this
3 process altogether.

4 ALJ: After Mr. Kuzminski
5 we'll hear from Jilda Rush.

6 SPEAKER: My name is Adrian
7 Kuzminski and I'm the moderator of
8 Sustainable Otsego. Sustainable
9 Otsego, an advocacy group for
10 sustainable practices in Otsego
11 County welcomes the opportunity to
12 comment on the draft -- DSGEIS for
13 the DEC. We note with interest that
14 the current DEC review of gas
15 drilling regulations in New York
16 State includes the possibility of an
17 outright ban on hydraulic fracturing,
18 a ban on hydraulic fracturing.
19 Section 7.0 of the DEC scoping
20 document, it's the very last page, if
21 you read to the very last page 47 or
22 48, whatever it is, states that,
23 "alternatives to be reviewed will
24 include the prohibition of

1 development of Marcellus shale under
2 the low permeability reservoirs by
3 horizontal drilling and high volume
4 hydraulic fracturing."

5 We strongly urge the DEC to
6 adopt this option, to prohibit any
7 further development of the Marcellus
8 shale by horizontal drilling and
9 fracturing until such time as the
10 following conditions are met.

11 One, local municipalities have
12 a decisive voice, not just a
13 participatory voice, but a decisive
14 voice, a veto in accepting or
15 rejecting natural gas development and
16 other large projects within their
17 boundaries. A first step would be
18 repeal of ECL 23-3032 which exempts
19 gas drilling from local oversight in
20 New York State.

21 Two, better standards,
22 holistic, integrated long term are
23 developed for calculating the full
24 impacts of large-scale development

1 projects, including externalities,
2 that is, the costs passed on to the
3 communities in terms of degraded
4 property values, loss of nature,
5 threats of health, inconvenience,
6 higher taxes, you name it. Current
7 evaluations do not meet these
8 standards and we've seen from Ann
9 Marie Garti, Ron Bishop and others
10 just how significant these
11 externalities and cost applications
12 can be. They need to be factored
13 into any consideration.

14 Three, fossil fuels are
15 classified as energy sources of last
16 resort, open to consideration only
17 after renewable resources are fully
18 developed. We urge the DEC to
19 consider the following rationale in
20 its conclusion. The presence of
21 large quantities of natural gas is a
22 gift of nature to our communities.
23 It should be tapped only, only if it
24 can be shown that the benefits to

1 these communities outweighs the cost.
2 It is unclear that that can be
3 established. The network of wells
4 and pipelines may be the largest
5 infrastructure project ever carried
6 out in the counties within the
7 Marcellus shale formation. It
8 deserves the highest, most
9 comprehensive review.

10 Natural gas is a nonrenewable
11 fossil fuel which although relatively
12 clean burning remains a significant
13 contributor to global warming.
14 Fossil fuels should be the energy
15 choice of the last, not the first
16 resort. Our major dependence is not
17 simply on foreign energy, it is on
18 polluting, unsustainable and
19 nonrenewable fossil fuels.

20 We also note that one of the
21 major drilling companies, Chesapeake,
22 is a subsidiary of the Norwegian
23 national energy company, so that
24 profits and perhaps even the gas

1 would leave not only our community,
2 but our country. This is not
3 advanced energy independence, quite
4 the contrary.

5 We expect New York's potential
6 harmful impacts from gas drilling
7 will be detailed by other
8 commentators and we merely listed
9 them here. Possible site pollution,
10 possible loss of irreplaceable
11 drinking water sources, possible loss
12 of protected trout streams and
13 wetlands, extremely large volumes of
14 water use, production of large
15 quantities of water polluted by
16 drilling, lack of transparency about
17 driller intentions, additives used,
18 health concerns, unprecedented stress
19 on local roads, disruption, erosion
20 and property damage from construction
21 of extensive pipeline networks, noise
22 and loss of property value, possible
23 legal liabilities for leaseholder and
24 landowners and so on. It's a long,

1 almost, endless list.

2 The collective force of these
3 impacts has yet to be determined. We
4 need to holistically, not piecemeal.
5 Any final determination should
6 include a full build out analysis of
7 all possible drilling and its impact.
8 Such an analysis may well show that
9 impacts to local communities
10 outweighs the benefits.

11 For these reasons, natural gas
12 should be developed, if at all, only
13 under local control to provide
14 essential local services for local
15 benefit, energy for hospital, local
16 transportation, etc. And only if
17 these services cannot be provided by
18 renewable resources, wind, biofuel,
19 solar, etc.

20 Such services which could be
21 central to our survival in times of
22 energy depletion, may not be
23 available if local resources like
24 natural gas are rapidly exploited and

1 explored for the benefit of others.
2 If natural gas is developed and
3 exported as proposed, this vital
4 resource will be lost to our
5 communities, leaving us more
6 vulnerable. We will have only dug
7 ourselves deeper into the energy
8 hole.

9 Local natural gas could, as a
10 last resort, last resort, be part of
11 a series of integrated,
12 decentralized, relocalilzed energy
13 systems. These would be more likely
14 to survive disruptions of global or
15 national supplies and networks, a
16 growing threat in these uncertain
17 times. Drilling as proposed is
18 particularly questionable given the
19 deregulation and federal oversight
20 over water quality in recent years,
21 including the Energy Policy Act of
22 2005 which exempts hydraulic
23 fracturing from requirements of the
24 Safe Drinking Water Act as well as

1 the state deregulations and also
2 given the limited ability of the DEC
3 and other agencies, in light of
4 budgetary constraints to adequately
5 regulate intensive gas drilling over
6 large parts of New York State.

7 The current rush to exploit
8 this resource is premature. There is
9 only benefit, not harm, in resisting
10 this impulse. The gas in the ground
11 will only become more, not less
12 valuable.

13 Again we urge the DEC to
14 prohibit, not just a moratorium, to
15 prohibit Marcellus shale gas
16 development and probably any kind of
17 gas development, except as a last
18 resort, under local control to
19 maintain local services and until
20 such time, if at all, when impacts
21 can be holistically determined and
22 managed with full accounting of all
23 costs. None of these conditions, in
24 our view, currently obtain. Thank

1 you.

2 ALJ: When we come back Jilda
3 Rush will be the next speaker. We're
4 going to take about five minutes and
5 we'll start it again at ten minutes
6 to eight.

7 (OFF RECORD.)

8 ALJ: I'd like to just remind
9 folks that we only have the room here
10 until 10:00, so we have a little over
11 two hours. I've got -- I must have
12 30 cards here, so please if you have
13 a written statement and you want to
14 summarize it quickly that's fine.
15 I'd really like to give everybody the
16 opportunity that has a statement
17 that's taken the time to come here
18 tonight. So if you can do whatever
19 you can to expedite your statement
20 you'd like to make tonight.

21 Again written comments will
22 receive the same weight, so if you
23 brought a written statement and its
24 of any kind of length, I'd appreciate

1 it if you would summarize it for us
2 so we can move right to the next
3 speaker. Jilda Rush, after Ms.
4 Rush we'll hear from Eric Miller.

5 SPEAKER: Please bear with me,
6 I'm not a professional speaker by a
7 long shot. I am a small landowner in
8 Windsor, whose property lies between
9 two large farms. One farm owner has
10 already leased his land to a gas
11 company and the other is a member of
12 the Windsor Coalition and plans on
13 leasing. I am concerned that gas
14 drilling on either farm will
15 contaminate my well water or to
16 delete the aquifer. I plan on
17 selling my home in the near future
18 and need the monetary base as part of
19 my retirement income. Damage to the
20 water supply would render my property
21 virtually worthless.

22 I have the following issues,
23 issue one, the need for
24 professionally and trained

1 inspectors. I've worked for New York
2 State Department of Transportation
3 for eight years in bridge design and
4 Oregon Department of Transportation
5 for 16 years as a construction
6 inspector and materials tester. I
7 will tell you from firsthand
8 experience that a project as simple
9 as a state highway asphalt paving
10 project requires on-site daily or DOT
11 trained field inspectors and an
12 on-site daily load operator asphalt
13 materials inspector, testing the
14 asphalt for such things as moisture
15 content, percentage of asphalt in the
16 mix, etc. Because I was this person.
17 I have an extremely detailed position
18 description for a Canadian Oil and
19 Gas drilling inspector position in
20 British Columbia, Canada. The job
21 description serves to illustrate the
22 importance the Canadian government
23 places on field inspections and the
24 degree of detail contained in the job

1 description shows that gas drilling
2 is not a simple process, nor should
3 it be treated as such.

4 I'm extremely grateful to
5 Governor Paterson and his close
6 advisors for realizing the critical
7 need for gas drilling inspectors and
8 imposing a moratorium on all gas
9 drilling until the state can provide
10 means of enforcing gas regulations,
11 but recognizing the need for
12 inspectors and finding the funding
13 for these positions are two different
14 things, especially with the current
15 economy, thus if DEC cannot currently
16 fund the inspector positions, the gas
17 drilling should only advance as fast
18 as the current DEC inspectors can
19 monitor them. That was brought up
20 before, I know. Issue two, the need
21 for contract plans and specifications
22 prepared by the gas drilling
23 companies themselves with submittal
24 to the DEC for review and approval.

1 I attended a meeting at the
2 Binghamton Public Library conducted
3 by the Independent Oil and Gas
4 Association. I expressed the need
5 for contract plans and specs and John
6 Holko insisted that the gas drillers
7 already provide such plans to the
8 DEC. The next day I called Linda
9 Collart of the DEC and relayed what
10 Mr. Holko had said, the only thing
11 she knew of would be a detailed
12 drawing of any such plans which
13 consisted of one sheet. I asked her
14 to send me a copy of this one sheet
15 for recent DEC approved gas well.
16 This sheet shows the geological
17 strata, the depths, the whole casing
18 design etc., but this one sheet is a
19 far, far cry from what I referred to
20 and am accustomed to seeing on a
21 Department of Transportation
22 project.

23 While working with New York
24 State DOT and Oregon DOT for 24

1 years, I was involved in preparing
2 preliminary bridge plans and specs
3 for interstate bridges on 110 miles
4 of I88, this was back in 1970 or
5 thereabouts, the very road you
6 probably drove on. I also prepared
7 preliminary plans for many road and
8 highway construction projects, the
9 projects as simple as asphalt
10 resurfacing projects, following up on
11 modernization projects. These plans
12 were extensive in nature, covering
13 every known aspect of the
14 construction and typically entailed
15 50 or more contract sheets with the
16 company specs of 100 or more sheets.
17 Thus, I don't see a gas drilling
18 project should be required to do
19 anything less since the impacts could
20 be every bit as far-reaching.

21 To further drive this point
22 home, I'll explain a project that I
23 have firsthand knowledge of that was
24 put in the hands of our very own New

1 York State DEC for review. These
2 were contract plans, 24 inches x 36
3 inches, drawn up by Keystone
4 Engineers for a large pond on my
5 neighbors land, located on the hill
6 directly above me. I became very
7 concerned that the location of this
8 proposed pond and the fact that no
9 one was going to be on site as an
10 inspector to ensure adherence to the
11 specs. Thus, I was successful in
12 having the DEC deny the permit for
13 this pond, but the main reason I
14 bring this up is to illustrate the
15 Division of DEC requires rather
16 extensive plans and specs for a pond
17 when it reaches a certain size and
18 volume and I might add that pond does
19 not pose any risk to underground
20 water tables, nor does it contain any
21 toxic chemicals to pollute water
22 supplies. Thus, why isn't this
23 requirement for plans and specs
24 carried over to gas drilling

1 operations?

2 PUBLIC: Bravo.

3 PUBLIC: The plans and specs
4 would succeed in one huge
5 accomplishment, that there would be
6 no mystery and no doubt about what
7 the gas companies might be up to,
8 their procedures would have to be
9 clearly explained with accompanying
10 detailed drawings and construction
11 notes showing every aspect of their
12 operation. You might be asking, what
13 is there about a gas drilling
14 operation that will require detailed
15 drawing plans with accompanying
16 specs? I will give you just one
17 example, environmentalist Bob
18 Williams gave a presentation at the
19 Coalition meeting in Harpursville
20 where he showed a picture of a gas
21 drilling pad. The pad was quite
22 large and required that the earth be
23 leveled and a berm be constructed
24 around the perimeter. This picture

1 caused me to immediately think of my
2 neighbors pond. The gas drilling
3 berm is very much like the pond berm.
4 The pond berm specs state that, "the
5 embankment is to be constructed at a
6 maximum of eight inch thick layers
7 running continuous for the entire
8 length of the fill, with each layer
9 being compacted prior to the next
10 layer and the fill is to have at
11 least 30 percent passing and over 200
12 sieve." Now do you actually think
13 the drill pad berm is constructed in
14 this manner? I would bet the drill
15 pad berm was constructed by a dozer
16 pushing up dirt into an unkempt pile
17 that is never even compacted. Now
18 what was the pond berm serving
19 contain, yep, pure water. Now what
20 is the drill pad berm supposed to
21 contain, you've got it, impure
22 hazardous materials. Thus, this
23 drill pad and waste pit needs the
24 same careful plannings and drawings

1 and specs as DEC requires for a
2 fairly innocuous pond berm. This is
3 just one example of drilling details
4 that need to be spelled out in a
5 drawing and construction notes.

6 On June 16, 2008 the
7 Pittsburgh Tribune Review ran an
8 article wherein it mentions how the
9 state stepped up its inspections of
10 drilling sites and found companies
11 were using poorly built and even
12 dangerous retaining pond dams. You
13 see, I'm not making this up, folks.

14 Issue three, the DEC needs to
15 research gas wells cement composition
16 and cementing procedures and consult
17 with on-site professionals, such as
18 Schlumberger, to review gas drilling
19 applications submitted to DEC for
20 approval. In the above mentioned
21 example of the current DEC approved
22 gas paper that Linda Collart sent me,
23 I noticed that Class A cement was
24 being used. I called her to ask if

1 this was regular Portland cement and
2 she said, yes. Since I used to be an
3 asphalt and concrete materials tester
4 for Oregon DOT, I became concerned
5 over the rigidity of Portland cement
6 and the extreme conditions gas
7 wellbore holes and drilling
8 operations would exert on this cement
9 after the casing was cemented.
10 Portland cement, by nature, is
11 brittle and low tensile strength.
12 Wellbore cement is subjected to many
13 stresses, both internal and external.
14 String lines and casing pipe
15 assemblies can produce vibrations as
16 they are moved inside the wellbore
17 and mechanical stresses may be
18 induced to force existing outside the
19 sheath surrounding the casing.
20 Examples of external pressures are
21 formation pressures, formation
22 temperatures, formation shifting,
23 formation compaction, etc. Which may
24 cause stress on the wellbore cement.

1 Conventional wellbore cement
2 typically reacts to excessive stress
3 by failing.

4 Thus, I've researched this
5 topic and present the following
6 findings. Proper cement is critical
7 for the protection of subsurface
8 aquifers and the prevention of gas
9 leaking into zones that would
10 otherwise not be gas bearing. Tubing
11 and casing leaks, poor drilling and
12 displacement practices, improper
13 cement selection and design, and
14 production cycling may all be factors
15 in the development of gas leaks.
16 Thus, the primary gas drilling
17 contractor frequently subcontracts
18 this aspect of gas drilling to a
19 company that exclusively performs
20 this cementing operation. DEC
21 personnel may have heard of
22 Schlumberger, which I'm sure they
23 have, since they are internationally
24 renowned experts in this field I

1 contacted them via e-mail and they
2 responded by saying, "if the DEC is
3 interested in soliciting our help, we
4 would be willing to participate."

5 Professionals in the oil and gas
6 industry are the first to admit that
7 they are still in the process of
8 perfecting the cement and cementing
9 techniques. Schlumberger says, "much
10 work remains to be done in simulating
11 downhold conditions and developing
12 new cement technology/compositions
13 from thermal applications and high
14 pressure conditions." Halliburton
15 offers the following, "wellbores
16 exist in extremely dynamic
17 environment, therefore a cement
18 sheath must be able to perform as
19 intended over time. When cementing a
20 well, the primary concern is to
21 prevent fluids from migrating into
22 the annulus. As the well ages, the
23 annular seal may be compromised as a
24 result of stresses brought on by

1 temperature and pressure cycling that
2 occurs as the well is operated. By
3 industry convention and tradition,
4 this is a quote from them -- "the
5 effect of stresses on the cement
6 sheaths mechanical properties are not
7 ordinarily assessed during the design
8 and construction phase of a well."

9 I have quoted two of the largest
10 segments in the gas drilling industry
11 here. Yet, IOGA, Independent Oil and
12 Gas Drilling Association of New York
13 is going around speaking at local and
14 regional gas drilling meetings
15 telling people there is nothing to
16 worry about. They are passing out a
17 nine page pamphlet wherein there is
18 only one small paragraph, on page
19 four, explaining the process of
20 cementing the well which ends with
21 the statement if the cementing
22 procedure will, quote, protect the
23 fresh water zones from any chance of
24 contamination. "The designs for this

1 pipe and the integrity of the well
2 exceeds all specifications by
3 regulatory authorities." This is an
4 all encompassing blanket statement
5 that is in direct opposition to what
6 the experts in the field, Halliburton
7 and Schlumberger have to say.

8 ALJ: Ms. Rush, could you
9 summarize? PUBLIC: This about --

10 ALJ: How much?

11 PUBLIC: About one more sheet
12 here.

13 ALJ: Could you summarize?

14 PUBLIC: Not really, it's
15 technical. The following are
16 excerpts from the paper titled, From
17 Mud to cement - Building Gas Wells,
18 dated August 2003. This study serves
19 to illustrate the complexity of the
20 cementing process, and extols this
21 phase in the drilling operation to be
22 one of the most unfailed safe
23 aspects. If the experts in this
24 field attest to the complexity of

1 this drilling, I think New York State
2 DEC should pay more attention to
3 cement designs and cementing
4 procedures. Quote from Halliburton,
5 "since the earliest gas wells,
6 uncontrolled migration of
7 hydrocarbons to the surface has
8 challenged the oil and gas industry.
9 Gas migration also called annular
10 flow, can lead to sustained casing
11 pressure, SCP.

12 By the time a well is 15 years
13 old, there's a 50 percent probability
14 that it will have measurable SCP in
15 one or more of its casing annuli.
16 However, SCP may be present in wells
17 of any age. Cement damage can occur
18 long after the well construction
19 process. Even a flawless primary
20 cement job could be damaged by rig
21 operations or well activities
22 occurring after the cement has set.
23 Changing stresses in the wellbores
24 may cause stress cracks that lead to

1 SCP. The mechanical properties of
2 the casing and the cement vary
3 significantly. Consequently they do
4 not behave in a uniform manner when
5 exposed to changes in temperature and
6 pressure. As the casing and cement
7 expand and contract, the bond between
8 the cement sheathe and the casing may
9 fail.

10 As the borehole reaches deeper
11 into the earth, previously isolated
12 layers of formation are exposed to
13 one another, with the bore hole as
14 the conductive path. Isolating these
15 layers, or establishing zonal
16 isolation, is the key to minimizing
17 the migration of formation fluids.
18 Crucial to this process are the
19 borehole condition, effective mud
20 removal and cement system design,
21 placement, durability and
22 adaptability to the well lifecycle.
23 Wellbore condition depends on many
24 factors including rock type,

1 formation pressures, local stresses,
2 the type of mud used and the drilling
3 operation parameters. The ultimate
4 condition of the borehole is often
5 determined early in the drilling
6 process as drilling mud interacts
7 with newly exposed formation. If
8 mismatched, the interaction of the
9 drilling mud with formation clays can
10 have serious detrimental effects.
11 Once in a well is drilled,
12 displacement, cementing and
13 ultimately zonal isolation efficiency
14 are dependent on a stable bore hole.
15 Drilling fluid engineers have applied
16 various techniques to investigate
17 rock response to drilling fluid
18 chemistry under simulated downhole
19 conditions. Mud companies have
20 created high performance water-base
21 muds that incorporate various
22 polymers, glycols, silicates and
23 amines, or combination thereof for
24 clay control. Like the fluids

1 themselves, drilling fluid hydraulics
2 play a fundamental role in
3 constructing a quality borehole.
4 Balance must be maintained between
5 fluid density, equivalent circulating
6 density and borehole cleaning. If
7 the static and dynamic fluid density
8 is too high, loss of circulation may
9 occur. Conversely if it's too low,
10 shales and formation fluids may flow
11 into the boreholes or in worst case,
12 well control may be lost all
13 together. Improper control of
14 density and borehole hydraulics can
15 lead to significant borehole
16 rugosity, poor displacement and
17 failure to achieve isolation.
18 Therefore, detailed engineering
19 analysis is required to obtain
20 acceptable outcomes.

21 Special materials are required
22 to give cement flexibility. Sealing
23 an annular spacing against gas
24 migration can be more difficult in

1 gas wells than oil wells. Wellbore
2 construction, particularly in the
3 presence of gas bearing formations,
4 required that borehole, drilling
5 fluid, spaces and cement designs and
6 displacement techniques be dealt with
7 as a series of interdependent
8 systems, each playing an equally
9 important role. Often relationships
10 among these systems is overlooked, or
11 at the very least poorly
12 appreciated.

13 Preventing gas migration and
14 SCP has been helped by recent
15 developments in cementing technology
16 that offer significant advantages in
17 durability and adaptation to changing
18 wellbore conditions and geological
19 strata. Cement properties have
20 traditionally been designed for
21 optimal placement and strength
22 development, rather than long-term
23 post setting performance. The rapid
24 development of high

1 cement-compressive strength after
2 placement was generally considered
3 adequate for most wellbore
4 conditions. Today operators and
5 service companies realize that the
6 emphasis on strength at the expense
7 of durability has often led to the
8 development of SCP, sustain casing
9 pressure and reduced well
10 productivity. FlexSTONE advanced
11 flexible cement technology is one of
12 several solutions that effectively
13 addresses in that flexibility of
14 durability. Conventional Portland
15 cements are known to shrink during
16 setting. In contrasts flexSTONE
17 slurries can be designed to expand,
18 further tightening the hydraulic seal
19 and helping to compensate for
20 variations in the borehole or casing
21 conditions. This capability helps
22 avoid microannuli development. By
23 adjusting specific additive
24 characteristics and by blending the

1 cement slurry with an engineered
2 particle size distribution, a
3 lowering of Youngs modulus of
4 elasticity in the cement can be
5 achieved. Annular cement can then
6 flex in unison with the casing rather
7 than failing from tensile stresses.

8 I'm almost done. Also one
9 encounters more difficulties in
10 cementing horizontal wells, as
11 opposed to vertical wells. One area
12 of concern is the "inability to
13 effectively cement" along horizontal
14 sections during a cementing operation
15 in horizontal wellbores and severely
16 inclined wellbores at an angle
17 deviation greater than 45 degrees.
18 Therefore, the efficiency of zone
19 isolation diminishes considerably in
20 these horizontal wells. Often a
21 failure in the cementing operation
22 occurs in horizontal wellbores
23 because the density of the cement
24 does not allow sufficient

1 displacement of drilling and other
2 residue from the tubing in wellbore
3 annulars. Thereby resulting in a
4 channeling of cement and improper
5 tubing for pipe formation and
6 bonding.

7 This study goes on to explain
8 complicated solutions to this problem
9 which I do not have time to go into.
10 In conclusion it's not so simple and
11 failproof as you folks may have been
12 led to believe.

13 ALJ: Erik Miller, then we'll
14 hear from Paul Mendelsohn. I am
15 going to ask though that -- I don't
16 want to put time limits on anybody,
17 but I want to reminding you folks
18 when five minutes is up. I really
19 would like to give everybody the
20 opportunity to speak. If you have a
21 written statement please trust me,
22 all right, trust me, the written
23 statement will receive the same
24 consideration as the oral statement.

1 So if you have a written statement,
2 don't feel that you have to put your
3 statement on the record, if you have
4 a statement and you want to summarize
5 it fine, but I'm going to need to --
6 I'm sorry, I'm going to remind you
7 when your five minutes is up.

8 Go ahead.

9 PUBLIC: I'm taking Erik
10 Miller's place because he had a city
11 council meeting. ALJ: I was
12 going to say you don't really look
13 like a Erik.

14 SPEAKER: I'm Martha Clarvoe,
15 I'm President of Otsego County
16 Conservation Association. I
17 appreciate this opportunity to
18 provide input for the New York State
19 Department of Environmental
20 Conservation of the draft scoping
21 document for the SGEIS. While most
22 of us understand the economic
23 benefits, New York State sees the
24 national resource extraction, no way

1 do we feel that environmental
2 safeguards should be leased to
3 expedite reviews when taken through
4 to the final SGEIS. In the draft
5 scoping document, we have come to the
6 realization that a great deal of
7 emphasis has been placed on the
8 original 16 year old GEIS related to
9 oil and natural gas extraction. This
10 raises a concern on its current
11 application and validity. In the 16
12 years since the adoption of the GEIS
13 many changes have taken place in our
14 state, demographic and societal and
15 important chemical procedural and
16 technological changes have occurred
17 within the oil industry itself.

18 We have compiled written
19 comments to be submitted, many of
20 which will be addressed this evening
21 and have been addressed, but tonight
22 I would like to emphasize our
23 specific concerns on a few scoping
24 sections in particular.

1 First and foremost regarding
2 public involvement. Public
3 involvement in the permitting process
4 must be clear and meaningful. There
5 is no better way for state
6 bureaucracies to understand local
7 impacts in providing local input into
8 the process at the earliest possible
9 opportunity, as well as including the
10 provision of various analyses to
11 solicit local input related to
12 traffic, infrastructure, potential
13 degradation, local air impacts, local
14 enforcement and emergency resources
15 related to this type of development,
16 social impacts, such as housing
17 shortage, alcohol and drug abuse,
18 wastewater treatment, involvement of
19 local bodies must be included.

20 In the section related to
21 services of water supplies, when it
22 comes to municipal water supply
23 protections the scoping document much
24 greater -- excuse me -- the scoping

1 document appears to give much greater
2 standing to residents of the New York
3 City Watershed. OCCA believes that
4 contrary to what's implied in the
5 SGEIS, smaller communities deserve
6 the same protections and
7 opportunities for involvement and/or
8 participation as those supported by
9 the New York City water supply. All
10 New York citizens deserve the
11 greatest possible protections of
12 their drinking water regardless of
13 geographic location. Thank you very
14 much.

15 ALJ: After Mr. Mendelsohn
16 we'll hear from Dave Elmore.

17 PUBLIC: Hi, I have just some
18 comments about water, clean water.
19 1.4 and 4.22, page 27, why is an
20 aquifer within 2,000 feet of a
21 reservoir in need of an SEQRA or GEIS
22 if the safety of billions of New
23 Yorkers who have no municipal water
24 supplies available not subject to the

1 same levels of protection, I ask
2 where is the science?

3 2.0 and 4.22, sentence 1
4 should call for injection wells as
5 well.

6 2.1.2, foot note on page 18,
7 "operators are not expected to
8 propose road spreading as a disposal
9 option." However, they have been
10 doing this now while applying for a
11 DEC beneficial use permit. According
12 to the OIGA of New York August
13 newsletter, if the DEC's mission is
14 to, page two, conserve, improve, and
15 protect the environment this raises
16 the question the effectiveness of the
17 DEC orders. 2.1.2.2, "fluids must be
18 removed before the pit is reclaimed."
19 This is clearly not possible, other
20 people have spoken about the 30
21 percent, 50 percent or whatever
22 chemicals not only that are injected
23 but on the vtax and the NORM
24 chemicals that are pre-existing and

1 will be disturbed naturally occurring
2 substances.

3 Page 13, "when you review the
4 possibility of collecting a list of
5 fracturing fluids from service
6 companies and chemical suppliers."
7 How can homeowners verify this
8 information. If say the IRS left it
9 to us to report all of our income,
10 would the budget loss rely on that
11 tally. So it must include
12 independent means for us to verify
13 what chemicals this process may be
14 exposing us to.

15 3.0, geology. Precautions for
16 handling and disposal of cut in spent
17 fluid water again, include more than
18 radioactive norms. Other existence
19 of turanian fluids are released and
20 the fluids properly includes benzene,
21 ethyl benzene, mercury, arsenic,
22 xylene, xolene and others. These may
23 have been spread through pre-existing
24 or newly created faults. How will

1 these cut ins and millions of gallons
2 of fluids be disposed of. Modest
3 earthquakes and faults in upstate New
4 York are common. With the deliberate
5 further fracturing of this rock the
6 likelihood of aquifer contamination,
7 like we've seen elsewhere, could
8 irrevocably render our farms and our
9 homes. Those of us in Cherry Valley
10 and elsewhere on the outer edge of
11 the Marcellus are particularly
12 vulnerable as the shale depth is
13 1,500 feet or less and many of our
14 wells are 300 or 400 feet deep.

15 I'll skip over a bit of this.
16 Water quality 4.2.2, 4.2.3, nobody
17 can create a baseline for our water
18 quality without fully funded,
19 independent testing of wells, we can
20 never know that the safety of our
21 water has been compromised until
22 birth defects, chronic illness,
23 cancer are in an outbreak around us,
24 commonly associated with many of the

1 chemicals related to hydro-fracking.
2 We must have a baseline for every
3 well, along with retesting at
4 established intervals after the
5 building is completed and well depths
6 of a mile or more at horizontal
7 wells, thousands of feet in any
8 direction, all wells must be tested
9 within a very wide area. I ask that
10 unique easily detected inert
11 chemicals be placed in the drilling
12 hydraulic and hydraulic fracturing
13 fluids, so that the exchange of
14 fluids between potable water can
15 easily be detected and traced to a
16 specific well.

17 4.22, groundwater quality.

18 "The Department's regulatory program
19 is a groundwater protection program."
20 It stands to reason that the
21 injection of grime or toxic wastes
22 into injection wells should not be
23 tolerated -- should not be
24 considered.

1 Fluid containment. Department
2 inspectors check liner and tank
3 integrity, unquote. The DEC
4 referenced in the Department's 2005
5 audit, before the oncoming rush of
6 horizontal well permits, showed
7 multiple disavowments. You have only
8 19 inspectors and a huge state budget
9 deficit, how can we depend on regular
10 inspections planned here and
11 elsewhere. Cumulative Impact, 4.7
12 -- I'm almost done. "The emission
13 and discharge of pollutants could
14 only occur as a result of violations
15 and accidents." "Drillers will be
16 subject to enforcement and mediation"
17 However, accidents and violations do
18 happen. Residents of the Town of
19 North Brookfield nearby have already
20 lost their wells due to an accident
21 in boring, a simpler vertical well,
22 as have countless people in other
23 states. There will be irreversible
24 consequences of such accidents and

1 violations. What mediation would you
2 recommend for a poisoned aquifer?
3 Water is the oil -- the oil of the
4 21st century is water, we have it in
5 an abundant supply. Fresh water,
6 plentiful here, but lacking in so
7 many other areas. My suggestion is
8 we take it seriously and protect it.
9 Thank you.

10 ALJ: David Elmore, after Mr.
11 Elmore we'll hear from Richard
12 Downey.

13 PUBLIC: Good to be here. I'm
14 David Elmore from Davenport, that's
15 in Delaware County and I'm speaking
16 for myself and I promise to be
17 brief.

18 I have several parcels of land
19 in Davenport, one is heavily
20 forested. I planted trees there,
21 I've done time stand improvement,
22 I've built wild life ponds, I've
23 pruned apple trees, I've made some
24 money from some of the sale of the

1 logs from the land, I've paid the
2 taxes and I think -- I've held this
3 for 40 years and I think at sometime
4 I'd kind of like to get some profit
5 out of this. Now I'd like to urge
6 the DEC to speed up this review and
7 make it safe. For instance I
8 understand that you only have to fill
9 out -- the operator only has to fill
10 out a two page application and then
11 they're handed a big manual with all
12 the rules. The operator is then
13 expected to abide by these rules or
14 else. If the process gets too
15 involved, I'm afraid that the window
16 of opportunity will close, especially
17 the shape the economy is today.

18 It goes without saying that
19 the economic potential for gas
20 exploration and production in this
21 area is significant. Natural gas
22 exploration and production is
23 definitely a plus and I feel that it
24 will promote good stewardship in the

1 area. Let me explain. Continual
2 subdivision and strip development
3 along Routes 23 and 28 certainly has
4 a negative impact on the groundwater
5 and the area involved. Nobody seems
6 to be up in arms about that. Now
7 hopefully the extra income from gas
8 development will allow the landowners
9 to afford to hold on to their land
10 and not subdivide. Thus, farmers
11 will be able to continue farming,
12 forest landowners, such as myself,
13 will continue to do timber stand
14 improvement and others will continue
15 to enjoy their property which
16 uninhibited -- will be able to
17 continue to enjoy the uninhibited use
18 of their property, open space will be
19 preserved and those unbroken parcels
20 can be passed to the next generation.

21 Just as an afterthought, let
22 me remind you that there is no water
23 contamination in Fort Worth and that
24 Western Pennsylvania with their

1 50,000 oil wells is not a disaster
2 zone and the area around them with
3 their 15,000 oil wells is not a
4 barren landscape. Thank you.

5 ALJ: Richard Downey, after
6 Mr. Downey we'll hear from John
7 Holko.

8 PUBLIC: Good afternoon, so
9 I'll let that go. I have a whole
10 series of jokes here, they'll go.
11 Thank you DEC for coming to Oneonta.
12 My name is Richard Daring and I
13 represent the Unatego Area Landowners
14 Association. As of today we are a
15 group of about 70 land owners, watch
16 out John, were going to be bigger,
17 and we're still growing. Our mission
18 is to negotiate a lease with a gas
19 drilling company that is safe for the
20 community and which respects our
21 individual property owners. Given
22 our mission, naturally our prejudice
23 is towards gas drilling and
24 production. However, we want that

1 production done in as safe and
2 responsible manner as possible and
3 practical. That's why we're here
4 today.

5 The DEC has issued a draft
6 supplement to the general
7 environmental impact statement. This
8 42 page paper, thank God it's 42
9 pages because it's a draft and it's
10 tough to read through, it outlines 62
11 areas of inquiry and categories from
12 well site operations to water
13 withdrawal to final disposal. It
14 considers the watershed area, the
15 cumulative impacts, the effects it
16 has on the community, character and
17 the permit process with special
18 emphasis on local government
19 coordination. These 62 pages --
20 areas, rather, mirrors concerns of
21 data from other states. DEC
22 Commissioner Peter Grannis addressed
23 these concerns and presented the
24 draft scope in testimony before the

1 State Assembly Environmental
2 Protection Committee, I think those
3 hearings went for about nine hours.
4 Review of this document is the reason
5 we're here today. I hope that the
6 presenters and most people who did
7 present today, I was surprised,
8 really had read this document and
9 carefully addressed their concerns
10 with its weaknesses and strengths.

11 I want to talk to you about
12 just some facts that I have
13 personally witnessed. I read a lot
14 of disaster material and I just
15 wanted to go out and see some of
16 these things and what I saw was not
17 quite as bad as what I've read.
18 However, there are some concerns, I'd
19 just want to give you the facts as I
20 see them.

21 Fact one, the primary
22 environmental concern of our
23 membership is the effect of
24 horizontal drilling on the quality of

1 our water supply. Please understand
2 that our membership wants to drill,
3 but to a household every member is
4 concerned about the water. To that
5 end we are requiring water testing
6 in our leases, before, during and
7 after completion of operations with
8 remediation measures written in.
9 That should be in our lease.

10 Fact two, as an association
11 we've tried to educate ourselves on
12 conditions at the well site by making
13 several trips within a radius of 200
14 miles. A concern that we came upon
15 was the leakage of flowback from the
16 retention ponds and I'm going to
17 offer as evidence of that, with my
18 written testimony, two pieces of --
19 one piece of retention that is 10
20 mil, we think this is inadequate.
21 I'm offering 40 mil as a suggestion
22 and I'm telling you that Michigan
23 requires 50 mil as a retention line.

24 Fact three, every spring the

1 Susquehanna seems to flood and it's
2 not like the Nile or the Ganges, but
3 you don't have to go too far down the
4 road to see cornfields under water.
5 We suggest that there be no open
6 retention ponds in the floodplain.
7 We also ask that you rethink the 50
8 foot setback from streams and rivers.
9 Neglect to have adequate setback was
10 a contributing factor in the
11 pollution of a river in Colorado.

12 Fact four, we have concerns
13 about the final destination of the
14 fracking fluids that are carted away
15 after the operations. We asked the
16 Susquehanna River Basin Commission at
17 their hearing in Binghamton on
18 October 22nd about the adequacy of
19 treatment plants in Pennsylvania to
20 handle New York waste. Commissioner
21 member, Michael Brown was
22 refreshingly candid about this
23 matter. He said that Pennsylvania
24 was barely able to handle its own

1 waste much less handle the
2 anticipated wastes from New York. He
3 says that the SRBC would control
4 growth through the permitting
5 process. The driller must tell the
6 Commission where it expects to
7 dispose of the waste before the
8 permit is granted to withdraw the
9 water necessary for the
10 hydro-fracking. Our question is; who
11 checks on the waste treatment plants,
12 how do you know that they are
13 adequate to do the job of processing
14 the ever increasing volume which we
15 expect to come from New York. In
16 conversations after the meeting,
17 Commissioner Brownell suggested that
18 the waste log jam would bring about
19 industry solutions, portable
20 centrifuges were mentioned. He said
21 some of them are already in
22 production at GE. Looking on the
23 internet we've seen that there are --
24 there's one for a NOMAD 2000 by a

1 company named Aqua-Pure. But the
2 question still remains; who is
3 responsible for the remains and how
4 do they check the final disposition
5 of toxic waste?

6 In summary, from what we've
7 learned from talking to industry
8 representatives, lawyers, government
9 officials and others familiar with
10 the industry, the DEC is our
11 communitys first line of defense.
12 Our leases may address our individual
13 concerns, but the DEC protects the
14 entire community. There is a mantra
15 out there that we keep hearing over
16 and over. We've got to get this
17 right, we've got to get it right the
18 first time. So take your time and
19 get it right. The gas isn't going
20 anywhere. We fully support your
21 efforts and look forward to your
22 final report. Good luck and keep us
23 informed.

24 One last thing, this is out of

1 scope of these hearings, but the
2 decisions made are beyond the pay
3 grade and anyone --

4 ALJ: There's a lot of things
5 beyond my pay grade.

6 PULBIC: But royalties,
7 royalties should be at market value,
8 not a minimum allowed by law. The
9 state is putting out to bid large
10 parcels, 20,000, 30,000 acre -- acre
11 parcels. These parcels are highly
12 desirable to the gas drilling
13 companies because they are contiguous
14 acres, relatively unrestricted and
15 immediately available. Given the
16 fact that there's 15 percent royalty
17 down in the Hancock area and 18 to 20
18 percent down in Pennsylvania. Us
19 accepting 12 and a half percent
20 royalties seems to be leaving money
21 on the table. So in these hard times
22 we shouldn't be just accepting 12
23 and a half percent. Thank you, good
24 night.

1 ALJ: John Holko, after Mr.
2 Holko we'll hear from David J. Cyr.

3 PUBLIC: Your Honor, I thank
4 you for allowing us to speak at the
5 scoping hearing. My name is John
6 Holko, Im here on behalf of the
7 Independent Oil and Gas Association
8 of New York. I wish to provide some
9 of our members comments with regard
10 to the draft scoping document. My
11 comments today -- I'm going to
12 provide a few non-committed comments
13 and also enclose some of the economic
14 issues that are addressed in the
15 SGEIS.

16 To give you a little
17 background on me, I'm personally the
18 secretary of the association, I'm
19 president of a small oil and gas
20 company in New York State, I've been
21 here since 1980, I've fracked a lot
22 of wells, worked on a lot of wells
23 and I have a background in business.
24 I'd like to say that some of the

1 presentations may make it out, the
2 gas companies come and they leave and
3 they run away and there's nobody
4 here, but truthfully we are a
5 business and that's one of the
6 reasons why I want to focus on the
7 socio-economic issue, but before that
8 I want to make a comment today, that
9 we support the DEC in this process
10 and we hope the supplement will
11 adequately address the issues
12 associated with the new technology
13 associated with horizontal drilling
14 and development of unconventional
15 resources. It's not as new as people
16 make it out to be. We've been
17 drilling horizontal wells in New York
18 and Trenton Black River for years.
19 Having good results and no
20 contamination. Comparisons to other
21 states I think people have to know
22 were a little bit unfair. New York's
23 regulatory mine or standard
24 regulatory structure has been here a

1 long time within the industry. The
2 industry has evolved with this
3 regulatory structure behind it, so we
4 actually have been regulated, we have
5 a long oversight, the people in the
6 DEC are very competent. I mean
7 you're talking about people that
8 understand the industry and are very
9 capable at monitoring and
10 regulating.

11 It's been talked about the
12 chemicals and the stimulation, well
13 talk about it, I just want you to
14 know they are collected, I know
15 because I received a letter that they
16 want an affidavit for having them and
17 I'm sure they'll become public,
18 that's part of the whole process.
19 The other thing that has to be stated
20 is, every well has a site specific
21 analysis. There's an inspection of
22 the fluids, permits issued, they come
23 and look at it, so that -- when
24 people talk about site specific

1 issues they're addressed on every
2 permit issued. Also, waste hauling
3 in New York State is regulated by the
4 Division of Solid and Hazardous Waste
5 and all the material is monitored,
6 it's documented and the reports are
7 sent to the state. So when somebody
8 says there's stuff missing or they
9 can't find it, maybe that's from
10 somebody on the outside, but trust me
11 somebody has to deal with all the
12 paperwork, it's there and the state
13 does a good job of monitoring.
14 Specific to the economic issues and
15 the socio-economic issues. I just
16 want to let you know, what the
17 association is trying to do is,
18 there's been a lot of comparisons to
19 Barnett and other shale, but what we
20 try to is put together an economic
21 impact of what we felt maybe sort of
22 developed in New York. We're talking
23 about 300 wells a year, not thousands
24 of wells. There's not enough

1 equipment, not enough manpower to
2 have that happen. It's not going to
3 be this overrun of equipment running
4 around drilling wells, it's not going
5 to happen. The impact of 300 wells
6 is so that the individual well has a
7 surface impact of 5 acres which is
8 pretty much the number everybody has
9 been using. We're looking at about
10 1,500 acres of impact on these 300
11 wells. The estimated annual
12 royalties, not using Dick's 15
13 percent, the 12 and a half percent
14 royalty on a Marcellus well producing
15 1,000 mcm a day, we're looking at
16 about \$108,000,000 a year in royalty
17 for landowners on these 300 wells.
18 We're also looking at property taxes
19 paid for localities of about 18 to 19
20 million dollars a year. That goes
21 directly to the schools, the county,
22 issues local. So when people talk
23 about how do you compensate for this
24 impact. This is part of the

1 compensation. And as far as -- if
2 you can tell me that there's a piece
3 of land out there, 1,500 acres,
4 that's paying \$19,000,000 a year in
5 property taxes with nobody on it,
6 just a piece of equipment, then I'd
7 like to see it.

8 The other thing you have, is
9 we have an annual estimated state
10 taxes of about \$33,000,000. Okay,
11 and a total annual estimated economic
12 impact -- direct impact of the total
13 money put into the project of
14 drilling these wells and operating
15 these wells about 1.2 billion
16 dollars. This is from energy source
17 that we believe is clean, it's
18 indigenous to New York and it does
19 decrease greenhouse gas emissions. I
20 think if we all were to consider
21 what's going on here and work
22 together -- granted, I mean, you
23 know, when you think about
24 environmental issues, we can talk

1 about that. This is an environment
2 that if we work together this can
3 work out to be a benefit for
4 everybody. Dick brought up a comment
5 about additional royalties and just
6 as a point of reference there's two
7 issues here. One, we looked at the
8 overall --

9 ALJ: Our time is limited
10 here, so --

11 PUBLIC: Okay, two items. I
12 wanted to comment on -- I do know
13 about three water wells that have
14 been polluted. We did the testing,
15 we had an analysis done. The first
16 one was polluted by a church's septic
17 system. The second one was polluted
18 by a fertilizer spill outside of a
19 farmer's barn. The third one was a
20 leaking manure pill and that's out of
21 probably 1,000 water wells
22 investigated. I mean there is no
23 apparent issues with underground
24 communication between down hole

1 stimulation and up hole aquifers,
2 there's just no data.

3 The other thing is and the
4 final comment on this royalty. If
5 you look at the overall cost of
6 paying the taxes, paying the property
7 taxes, the state taxes, the federal
8 taxes, the royalties and all the
9 money, the percentage of income that
10 is offered, the gross profit on a
11 typical operation to New York is
12 about 6 percent. If you want that
13 other three or four, Dick, you're
14 going to see a really tight
15 operation.

16 PUBLIC: I want it.

17 PUBLIC: We'll take it.

18 PUBLIC: Thank you.

19 ALJ: Next is David Cyr and
20 then we'll hear from David Hutchison.

21 PUBLIC: Are you DEC people
22 still awake back there, I sure hope
23 so. My name is David Cyr and I am
24 the state committee member for the

1 Green Party of New York State,
2 representing Delaware County and I am
3 a member of Chenango, Delaware,
4 Otsego Gas and I happen to live
5 within the New York City Watershed.

6 I'm here to both ask and
7 answer some fundamental questions.
8 Is horizontal well drilling water
9 fracking necessary? No, no, no it is
10 not. That high volume, high pressure
11 water fracking is not necessary. Its
12 sole purpose is to quickly maximize
13 private short term corporate profits,
14 while externalizing the long term
15 cost of the public, privatizing the
16 temporary gains for a few, while
17 spreading the permanent losses around
18 to everyone else, with a corrupt
19 legislature ignoring later
20 consequences because it gets a taste
21 too, in a very temporary injection of
22 revenue, leaving future generations
23 with yet another costly mess for them
24 that our generation has created.

1 Just because water fracking
2 can be done, should it be done? Our
3 society condones natural sexuality
4 between consenting adults, but we
5 forbid pedophilia. Likewise the
6 provision of a greener fuel, natural
7 gas, is something entirely
8 acceptable, but the practice of
9 removing fresh water, our most
10 precious and most needed resource,
11 from the natural water cycle, by
12 making toxic waste out of enormous
13 quantities of pure water, that should
14 be as pedophilia is, absolutely
15 forbidden.

16 Can regulation make water
17 fracking acceptable? If a father's
18 sexual molestation of his child is
19 wrong, an evil act, when it is done
20 unseen by anyone else it isn't made
21 good, a blessed sacrament, by having
22 police provide official approval,
23 permitting it on condition that they,
24 the police, can join in the father's

1 depravity by occasionally peeking in
2 his window to watch.

3 Is New York City exceptional?
4 If water fracing is not safe to be
5 done within one watershed, it is not
6 safe to be done in any watershed.

7
8 What is the best use of land?
9 The traditionally agricultural soils
10 of the Southern Tier, above the
11 Marcellus shale, are currently
12 undergoing a transition toward a
13 relocalization of sustainable organic
14 food production which constitutes,
15 clearly the best use of what remains
16 of our agricultural land, especially
17 for this agricultural land which is
18 not environmentally molested, is
19 blessed with a reliably replenishable
20 water supply that does not exist in
21 most of those places where
22 unsustainable, over intensive,
23 industrial agribusinesses are
24 located: Their water is running out.

1 A proliferation of toxic waste
2 producing shale gas drilling here is
3 absolutely incompatible with that
4 organic food production. And that
5 food production is needed to provide
6 a sustainable and actually healthy
7 source of food to eat. We can
8 produce clean food here or we can
9 extract gas dirty, but we cannot do
10 both.

11 Must we use up all the fossil
12 fuel ourselves or should we leave
13 some to our children? In the last
14 100 years half of all the oil on the
15 planet has been used up, the easy to
16 find and the easy to get half. The
17 remainder will be gone - fully
18 depleted within a few decades. So
19 just as mindless as a metastasizing
20 cancer, energy extraction industry's
21 goal in its new energy independence
22 push is to quickly use up all of the
23 other available fossil fuels as well.
24 To get it all, to get it all as fast

1 as possible. If we cannot now turn
2 stone into gas without also
3 converting massive quantities of
4 potable water into poison, then we
5 should have the ecological wisdom to
6 leave that gas deep way down there
7 where it is so tightly trapped, until
8 some future generation can find a
9 truly environmentally sound means of
10 collecting it. We should leave that
11 resource to our children to be
12 retrieved and used more responsibly
13 by them than we, the greediest
14 generation, are capable of now.
15 Thank you.

16 ALJ: David Hutchison, then
17 well hear from Win McIntyre.

18 PUBLIC: I'm David Hutchison
19 representing the Environmental Board
20 for the City of Oneonta. At our
21 meeting on November 12th we got
22 together to talk about this. We also
23 had a couple other geologists there,
24 I'm a geologist, retired geologist,

1 we had some hydrologist from the
2 water resource branch and also Brian,
3 I cant think of his last name right
4 now, was also there, another retired
5 geologist. When we put together the
6 current concern, the comments may
7 have been repeated but I'd like to
8 accentuate a few things, a few
9 concerns that we came up with. One
10 is to limit the number of times a
11 given well can be subjected to
12 hydraulic fracturing. And part of
13 this, a new drilling permit must be
14 issued each and every time hydraulic
15 fracturing or any other currently
16 undeveloped simulation is intended
17 for the well. The end use being here
18 that although it was mentioned in the
19 animations earlier tonight, but most
20 people don't realize that one:
21 Hydraulic fracturing of a well isn't
22 it, they may go back three, four or
23 more times during the lifetime of a
24 well. Each time bringing perhaps 100

1 trucks to bring the water in and
2 letting out the water, 100 trucks,
3 about 10,000 gallons per truck. You
4 have about so many gallons per truck
5 each way including the produced
6 water. So the tremendous impact,
7 consequently we would like to see the
8 DEC require a new permit each time
9 this happens. In the future the well
10 may last thirty years, 50 years;
11 there will be other technologies and
12 we don't know what they are now so if
13 they're included in any other
14 currently undeveloped simulation for
15 a well would also require a permit.
16 Second item is certainly we've
17 covered a lot, we require --- we
18 required that all chemicals used in
19 drilling and hydraulic fracturing of
20 a well be revealed at the time of
21 permitting. That's already been
22 stated here. We would also like to
23 see those made public. The reason
24 being once you have a well tested it

1 is much more expensive if you don't
2 know what you're testing for. But if
3 you know that you've got five or six
4 or seven seriously polluting
5 components, it's much easier and
6 cheaper to have those wells tested.
7 Another aspect of this is we were
8 contemplating perhaps the company
9 should put some sort of an inert
10 chemical, unique, easily detected
11 chemical in with the W fluids and in
12 with the hydraulic fracturing fluids.
13 It's true, we understand that the
14 passage of the fluids may not happen
15 within the lifetime of a well, but
16 what about 50 years later? If you
17 have a unique fluid tracer that you
18 can analyze and the DEC has a record
19 of the company that used that
20 particular tracer, 50-60 years down
21 the line if the company had packed up
22 taken off, if you have pollution
23 problems, hopefully there would be a
24 unique way of tracing that to the

1 particular company that was drilling.
2 So this means later on, if you need
3 to get bond money from the companies
4 because we all know that too many of
5 the big companies may be in business
6 the next 30 or 40 years. So we are
7 encouraging that the tracer fluid and
8 well pads and other fluids.

9 Third, baseline, chemical and
10 water analysis. We assume that this
11 would have to be done by the company.
12 Clearly stated in a certified letter
13 must extend to the property owner or
14 the County advising them of the offer
15 to analyze the water before drilling
16 commences. This would be the
17 responsibility of the drilling
18 companies that offer to do this. As
19 this is deemed necessary by DEC, a
20 water analysis will be made any time
21 during the actual drilling or
22 hydraulic fracturing with the cost to
23 be borne by the drilling companies.
24 This baseline analysis of the water

1 should be done by independent
2 environmental consultants hired by
3 the municipality, appropriated by the
4 DEC or by the individual property
5 owners and paid for by the drilling
6 companies. So the burden of
7 responsibility for these baseline
8 studies would definitely be borne by
9 the oil companies.

10 Fourth, very concerned with
11 the DEC personnel and with speaking
12 with some of the folks from DEC this
13 evening, I asked the question how
14 many wells could one person on the
15 DEC staff monitor. And they said
16 probably by the time you go through
17 all the procedures that they are
18 required to do roughly be about one
19 well per month. So if you've got 10
20 employees you're talking about 120
21 wells. So I think the burden should
22 be placed upon DEC and the way we
23 phrased it here, consequently
24 drilling permits should only be

1 issued by DEC, if it has enough
2 qualified personnel assigned to the
3 environmental review to ensure that
4 wells drillers are in compliance with
5 the GEIS, SGEIS. A ratio should be
6 expected by the DEC which allows only
7 a certain number of permits to be
8 issued per qualified DEC inspectors
9 who are assigned to review
10 environmental safety with associated
11 wells. So in other words this is the
12 question I've had from day one. I
13 think there may be under 20
14 geologists working for DEC that would
15 be qualified to do this. If DEC
16 cannot come up with the funding,
17 budgets are tight, then permits
18 should not be issued. So there has
19 to be some sort of a control there
20 and in fact according to the
21 gentleman I spoke with earlier in the
22 evening answered my question probably
23 wouldn't be able to get a permit, if
24 they don't have the staff. So that

1 makes a lot of sense, it's very
2 logical. Lastly, bonding or other
3 funding issues are supposed to be
4 posted by the drilling companies
5 should be alleviate or remediate only
6 when drilling, fracking fluids, or
7 aquifers, restoration of well sites
8 and other potential financial burdens
9 under the various auspices of
10 government and property owners.
11 Again, I would stress that in looking
12 at the anticipated cost of possible
13 pollution after the well has been
14 abandoned, 30 years, 50 years down
15 the line, who's going to be around to
16 pay for it? I think before the money
17 is all shifted off with the gas
18 companies, a chunk of that should be
19 retained in escrow so to speak, so
20 keep this stuff in mind. So those
21 are basic, like a challenge my fellow
22 geologist at DEC to see if they can't
23 come up with some kind of inert
24 chemical. State paid geochemists, I

1 don't have the time to do this. I
2 would think that maybe half a dozen
3 inert chemicals could be put into
4 drilling fluid. Realizing that they
5 may take forever for them to get to
6 the oil but if they do get to the
7 well, they will have a unique tracer
8 to assign responsibility.

9 ALJ: The next speaker is Win
10 McIntyre, after we hear from Mr.
11 McIntyre well hear from Colleen
12 Blocklock.

13 SPEAKER: Hello, my name is
14 Win McIntyre and I'm the Watershed
15 Manager for the Otsego Watershed. My
16 comments are on behalf of the people
17 that work for the Watershed
18 Supervisory Committee and the Board
19 of Water Commissioners for the
20 Village of Cooperstown, which has the
21 authority under the public health law
22 to protect Otsego area public
23 drinking water supply. This is a
24 summary of the Watershed Committee's

1 comments.

2 There are two areas of concern
3 that are not adequately addressed in
4 the draft scope or the draft
5 supplemental GEIS. They are
6 conservation and protection of
7 freshwater resources. Conservation:
8 One of the primary reasons of the
9 SGEIS is the high volume of fresh
10 water needed to hydraulic fracture --
11 hydro-fracture. A horizontally
12 drilled well in shale. The draft
13 scope ratio, 2.1 to 2.4 million
14 gallons of water per well based on
15 information from two gas drilling
16 operations. The experience in Texas
17 with thousands of wells drilled from
18 hydro-fracking shale, similar to the
19 Marcellus, is that the water line of
20 the wells runs 3 and a half million
21 and could be as high as 5 to 6
22 million gallons per well when
23 multi-stage fracturing is done and
24 that's fairly common. Following

1 fracturing the waste water must flow
2 back to the surface of which 20 to 30
3 percent flows back in the first two
4 to three weeks. Based at 3.5 million
5 gallons in, this is an additional
6 amount of 700,000 to over a million
7 gallons of wastewater. The rest of
8 it goes back in terms of the surface
9 over 6 to 8 weeks. These are huge
10 quantities of water both freshwater
11 in and wastewater out. And this
12 beckons the question for the draft
13 supplemental GEIS, why isn't water
14 recovery and reuse considered more
15 comprehensively in the draft scope?
16 The draft scope mentions the reuse
17 and recycling but only whether it's
18 feasible or not. It is more than
19 feasible and is being done in Texas
20 and is a simple process distillation.
21 Recovery rates of 80 to 90 percent
22 are being achieved. And to date over
23 300,000,000 gallons of water have
24 been recovered. The recovery units

1 are modular, transportable and are
2 located close to drilling operations.
3 The benefits of water recovery and
4 reuse are great. The volume of
5 freshwater use and wastewater
6 generated are significantly reduced
7 as is truck traffic. Thus the scope
8 of the draft supplemental GEIS needs
9 to take a more in-depth look at water
10 recovery and reuse. And ask the
11 question, why not use it? And what
12 are the environmental impacts if not
13 used. Protection, simple question.
14 This has been mentioned by others.
15 Why aren't all service water,
16 municipal drinking water supplies
17 included in the scope of the draft
18 SGEIS? We're suggesting the
19 reservoirs for New York City. It
20 certainly makes sense for the water
21 supplies for New York City to be
22 considered but there are many small
23 municipal drinking water lakes and
24 reservoirs in the area being

1 considered for gas drilling in shale.
2 And they also need to be protected.
3 The best protection would be to ban
4 gas drilling from drinking water
5 watersheds. However, if gas drilling
6 did go on in water - watersheds, the
7 draft supplemental GEIS needs to
8 specify setbacks from waterbodies of
9 at least one quarter mile and the use
10 of steel tanks for storage of waste
11 water. The protection of all surface
12 waters is limitly covered in the
13 draft scope. The set back of gas
14 wells from a stream, river or lake is
15 50 feet. A septic system has to be
16 at least a hundred feet from a water
17 supply. The draft scope for the
18 SGEIS needs to ask the question and
19 assess the environmental impact for
20 the following: What if an open
21 storage pit, containing several
22 million gallons of gas drilling waste
23 water, located 50 feet away from a
24 water supply fails?

1 In conclusion the draft SGEIS
2 needs to take a much stronger
3 approach to conserving our water
4 resources by reducing the volumes of
5 freshwater in and wastewater out.
6 And take a more comprehensive look at
7 protecting our water resources, both
8 drinking water supplies and all other
9 freshwater bodies. Thank you.

10 ALJ: Next is Colleen
11 Blocklock and then we'll hear from
12 Elizabeth Niels.

13 PUBLIC: This evening I would
14 like to speak to you about concerns
15 for the impact of high-volume
16 hydraulic horizontal gas drilling on
17 agricultural lands and food
18 production. The original GEIS
19 addressed agricultural issues based
20 on data that came from 1988 and
21 earlier. These data on agricultural
22 are outdated. I urge the DEC to
23 include agriculture in the draft
24 SGEIS using current data and to study

1 not only the impacts on individual
2 sites, but also the cumulative
3 impacts on agriculture in New York
4 State. In the GEIS it is noted that
5 agricultural lands are sensitive to
6 disturbance and are more likely to
7 require preparation of environmental
8 impact statements. The draft scope
9 and the next GEIS does not address
10 the impacts of this type of
11 horizontal drilling in its vast scale
12 and environmental issues. The
13 original GEIS, Chapter 6, Section 1
14 states that 33 percent of the states
15 land resources are devoted to farm
16 ownership and 2.8 billion of farm
17 commodities are produced annually, a
18 citation from 1985. Many other
19 figures on agriculture date from the
20 early 80s and 70s. All of these
21 figures need to be updated in the
22 draft SGEIS and cumulative impact
23 need to be studied and included.

24 The Marcellus shale formation

1 covers an area that includes 27
2 counties across the state of New
3 York. From the US Census Bureau I've
4 estimated that of the 19,200,000
5 people living in New York State,
6 approximately 3,000,000 New Yorkers
7 reside somewhere over the Marcellus
8 shale formation. The SGEIS needs to
9 look closely at the numbers of people
10 that will be impacted by the local
11 and regional effects of drilling in
12 terms of the availability of clean,
13 uncontaminated food and water from
14 local sources. New York ranks among
15 the top five states with production
16 of dairy, cherries, apples, cabbage,
17 potatoes, onions and maple syrup.
18 The counties covered by the Marcellus
19 shale formation including
20 agricultural regions called the
21 plateau country which is known for
22 its production of dairy, beef,
23 vegetables, wine, potatoes and many
24 others. It is the largest

1 agricultural region in the State. The
2 impact on farming in this region of
3 the State was never studied by the
4 GEIS. Given this region's emphasis
5 on farming, it's important to New
6 York agriculture and to investigate
7 drilling operations and water usage
8 be examined. The people in New York
9 deserve a detailed analysis of
10 specific impacts on agriculture in
11 the Marcellus shale region. Recent
12 trends have emerged since the writing
13 of the GEIS including a surge in the
14 local food movement. The
15 establishment of local and regional
16 food markets throughout the State and
17 the increase in organic, natural
18 farming methods. There has been
19 movement among New York farmers and
20 organizations to strengthen local and
21 regional markets. The average
22 consumer has become more aware of
23 eating locally produced foods. This
24 comes at a time when as a nation and

1 around the world we are facing an
2 eventual depletion of available
3 fossil fuel resources for the
4 transportation industry and
5 agriculture. The food on our table
6 travels an average of 1500 miles from
7 farm to table. The movement toward
8 locally grown food is a long-term
9 strategy for mitigating the effects
10 of fossil fuel depletion. All of New
11 York, including New York City, can
12 start to view our state as the local
13 and regional food shed. These
14 trends can be seen in a number of
15 organizations that have programs
16 promoting local foods by educating
17 consumers as well as organizations
18 supporting local farmers and
19 development of local and regional
20 markets. I recently attended a
21 summit on July 17th this year held by
22 the Cornell Cooperative Extension
23 Small Farms Program. There were 56
24 participants from around the State

1 discussing issues involving local
2 food production, distribution and
3 marketing.

4 Now I will jump to a whole
5 list of questions that I have
6 formulated related to this document.
7 I don't know how much we can get to.

8 What is the actual percentage
9 of farmers who will benefit
10 monetarily from gas drilling? What
11 percentage are absentee landlords
12 with no investment in this region or
13 community? What is the number of
14 people who will receive royalties
15 versus the number of people living in
16 this region who will see no direct
17 economic benefit? What is the
18 demographic breakdown of the farmers
19 per town and per county and how much
20 land do they own? What do these
21 farmers grow? How much do they
22 produce? What is the dollar value of
23 their produce and what are the
24 secondary economic impacts of

1 farming? What chemicals will be used
2 in fracking and what data exists in
3 other States about the health effects
4 of these particular chemicals? What
5 data exists in other states about the
6 health effects of these chemical by
7 plants and animals? What will be the
8 impact of these chemicals on the food
9 chain including crop fields, food
10 contamination, damage to livestock
11 and level of toxicity that pose a
12 health risks? What is the data from
13 other States showing how long these
14 contaminants linger in the
15 environment? What part of the
16 pattern and time frames for
17 decomposition? What are the impacts
18 on the dairy industry upon the
19 injection of toxic chemicals? What
20 would be an acceptable level of the
21 toxins in milk and other dairy
22 products? What data exists in other
23 States testing milk for toxins that
24 are involved in gas drilling? What

1 is known about the impacts of any
2 infrastructure in fracking fluids and
3 what effect do those have in
4 disturbing and decreasing
5 reproduction of livestock? Dr. Theo
6 Colburn, endocrinologist from
7 Colorado has done extensive research
8 in this area, data from soil and
9 water collection from drilling sites.
10 What data from other states indicate
11 the alteration and depletion of water
12 tables by the gas drilling industry's
13 use of billions of gallons of clean
14 water? What impact would decreased
15 water levels have on crop fields and
16 livestock? How would this
17 disturbance of land and water
18 increase the vulnerability of
19 flooding of agricultural lands
20 especially in light of changing
21 climate conditions and increased
22 incidents of extreme weather
23 conditions?

24 ALJ: Are you close?

1 PUBLIC: Close.

2 ALJ: Okay.

3 PUBLIC: Let me jump to some
4 other things here. I also just
5 wanted to mention that there are
6 things about the drilling that would
7 be a given that aren't, you know, if
8 that didn't happen and that sort of
9 thing. One of them is low-lying
10 ozone levels. Low lying ozone levels
11 are greatly increased with the
12 presence of diesel burning vehicles.
13 What is the number of heavy trucks
14 and equipment that will be run on
15 diesel and the projected level of
16 ozone emissions on these machines and
17 the airflow patterns in the region.
18 These data can be correlated with air
19 and other studies indicating that
20 ozone can reduce crop production as
21 much as 40 percent. Plants are much
22 more sensitive to ozone than animals.
23 These data must be correlated with
24 current levels of crop fields and the

1 economic cost of yield reductions.

2 In Chapter 7 of the draft scope for
3 the SGEIS, prohibition of development
4 of Marcellus shale and other low
5 permeability reservoirs by drilling
6 and high-volume hydraulic fracturing
7 is slated for review. It is my hope
8 that the DEC will declare a
9 moratorium or prohibition on gas
10 drilling operations including lease
11 procurements, unless and until all
12 these questions have been addressed
13 and comprehensive safeguards have
14 been put firmly in place. On closer
15 inspection it may become apparent
16 that current gas drilling technology
17 is not congruent with the maintenance
18 of the safety and economic viability
19 of the New York agriculture.

20 ALJ: Elizabeth Niels and
21 then we'll hear from Robert Hadden.

22 Folks, we're going to run out
23 of time here at 10:00. If you have a
24 written statement and you just want

1 to submit that, that's fine, but I
2 really do --

3 PUBLIC: Three-minute sheets.
4 I've got one sheet.

5 ALJ: Can you do it in three
6 minutes.

7 PUBLIC: Yes.

8 ALJ: Okay the three minute
9 rule, we'll try that.

10 PUBLIC: A lot of people spoke
11 on the subject of water and I just
12 want to add to that a little bit. We
13 want the opportunity to set forth in
14 our view our most important resource.
15 And 14 years of gas production from
16 the Marcellus shale really is a drop
17 in the bucket compared to really
18 clean water. So I feel that the DEC
19 should take a stronger stand, turn it
20 around, that until we know that it's
21 safe, we should put off the gas
22 drilling. I know of a few examples
23 of wells and everyone I know of or a
24 lot that I know of turned out badly.

1 This one in Trenton Black Water where
2 the well was contaminated some
3 asphalt. Also this article in
4 Scientific American, November 17th,
5 and I think this can talk more about
6 that. That tells of a great deal of
7 water pollution from horizontal gas
8 drilling.

9 ALJ: Thank you very much.

10 Robert Hadden, after Mr. Hadden we'll
11 hear from Ron Irvin.

12 PUBLIC: My name is Robert
13 Hadden and I practice as a
14 professional engineer. I would like
15 to call your attention to this
16 article in Scientific American,
17 Abrahm Lustgarten, "Drilling for
18 Natural Gas with Water." It's a
19 story of a single major local
20 disaster. And what seems to me is
21 not that disaster, but how it was
22 responded to by the United State's
23 government and you know what are --
24 what is our ability to truly regulate

1 this industry. In July, I was
2 allowed to drop a plastic sampling
3 pipe 200 to 300 feet down a well in
4 Sublette County in Wyoming. We
5 brought back brown oily water with a
6 fowl smell and it contained benzene,
7 to the quantity of 1,500 times the
8 allowable level. This is known to
9 cause various diseases. The county
10 in Colorado has about 6,000 wells, it
11 is a highly developed area. And what
12 they have found in there is that the
13 plume, underground plume of pollution
14 extends about 28 miles of wells at
15 least that have been tested by the
16 Environmental Protection
17 Organization. EPA said 220 wells
18 were polluted. I went back for more
19 samples, but I couldnt get a number
20 of them because they were possibly
21 explosive. I refer you to the
22 article, I have summaries back there
23 and a little piece of paper showing
24 how to get to the Scientific American

1 web-site. You go there, you go gas
2 wells and youll get the whole
3 article. Whats interesting is whats
4 happened with this.

5 In 2004 the EPA wrote an
6 analysis report, it was invented by
7 the industry. What damaging
8 information they have is buried in
9 the middle of it and not included in
10 the summary. In 2005, Energy Policy
11 Act, very few people know this,
12 theres a three paragraph strip, the
13 government of the United States for
14 most of its ability to review this
15 fractionated method of drilling for
16 natural gas. Today fracturing is
17 used in about 90 percent of the
18 natural gas wells in the United
19 States.

20 ALJ: Three minutes.

21 PUBLIC: What?

22 ALJ: Three minute limit.

23 PUBLIC: Okay. Current
24 history tells us, you think they

1 would stop doing. There are permits
2 for 4,400 more wells in that county
3 this fall. President Bush has
4 extended the drilling in multiple
5 areas. It seems to me we should have
6 the best minds in the country looking
7 at this. I'm not comfortable looking
8 at this, I don't think most of you
9 are. The existence of unbiased
10 analysis seems to be lacking at our
11 ability to regulate the industry.

12 ALJ: Thank you. Our next
13 speaker is Dave Brandt.

14 PUBLIC: I'm not Mr. Brandt,
15 but Im speaking for him, he will be
16 mailing in his comments. I'm going
17 to give somebody out there about two
18 minutes of my three. Somebody just
19 mentioned that this is not about
20 water this evening, this whole thing
21 is water. We're looking at
22 potentially giving away record
23 amounts of what clean water we have.
24 I would suggest that anybody thats

1 contemplating signing a lease and the
2 DEC, that we look very hard at
3 throwing away what good clean water
4 we have left. Thank you.

5 ALJ: David Parker.

6 PUBLIC: Not here.

7 ALJ: Roger Downs?

8 PUBLIC: Here.

9 ALJ: After Mr. Downs well
10 hear from Dorothy Scott Fielder.

11 PUBLIC: Hi, my name is Roger
12 Downs, I'm from the Sierra Club, I
13 will try to keep it within three
14 minutes. We will be submitting
15 substantive comments. I hear that
16 somebody say that, you know in early
17 July when we petitioned for the
18 supplemental process, we also saw
19 great potential to reopen the Generic
20 Environmental Impact Statement and I
21 know the DEC is hesitant to do this,
22 but there are tremendously weak areas
23 in this document that the folks have
24 gone over it again and again. But it

1 isn't just about water, it's about
2 air quality. The Generic
3 Environmental Impact Statement is
4 tremendously weak in this regard. In
5 1992 they concluded that an
6 individual gas well site was similar
7 to that of a construction site and
8 that the air emissions from the
9 diesel generators and such would just
10 dissipate. And we realized that the
11 impact was cumulative and we're a
12 little concerned that the language of
13 the draft scope is a little vague and
14 suggested they kind of allow stopping
15 for air quality impacts. We really
16 think this is an opportunity to
17 overhaul this.

18 And at this point for
19 convenience, we don't think that the
20 entire Generic Environmental Impact
21 Statement should be overhauled, but
22 the Department should be willing to
23 go back and look at areas like
24 cumulative impacts. Look at areas

1 like greenhouse gas emissions which
2 simply put the Department suggested
3 that another agency will be looking
4 at that in their own separate review
5 process. That kind of segregation
6 shouldn't happen here. The
7 greenhouse gases come directly from
8 this industry. Methane is 23 times
9 more potent than CO2 and that there
10 are leakages, unnecessary leakages
11 coming from this industry that we
12 really have to tackle. Along those
13 lines, also pipelines, compressor
14 stations, transmission lines, that
15 can't be said from this review. The
16 DEC may not have regulatory authority
17 over it, but certainly you can't have
18 natural gas wells without having
19 pipelines and these ancillary
20 structures. That should be reviewed.
21 I will not belabor the point, well
22 make it in comments. I would like to
23 say for tonight, we also will
24 reiterate a comment that was made

1 before that it is their obligation
2 under SEQRA to include methodology in
3 the draft scope and to let you know
4 an analysis of methodology. And that
5 certainly farming organizations would
6 like to take a crack at it, but
7 before the final environmental
8 scoping document is put out,
9 certainly this is an important aspect
10 of the devil is in the details and we
11 want to help. How are they going to
12 deal with the cumulative impacts? Is
13 it going to be a whitewash or is this
14 going to be a legitimate analysis
15 using GIS and using very thoughtful
16 parameters. And then I agree with - I
17 would like to say also that -- you
18 know I think there is this message
19 coming from the oil and gas industry
20 that we've got to quicken up this
21 process, the timetable for the
22 supplemental is pretty aggressive,
23 they want this document finalized by
24 the summer. I think from our

1 perspective the quickest, the fastest
2 pathway to completion for the
3 Supplemental Generic Environmental
4 Impact Statement is a thorough
5 review. One that doesn't whitewash,
6 one that doesn't segment. One that
7 does the most comprehensive analysis.
8 And if they do that properly, we will
9 be much quicker overall in realizing
10 what the potential outcome of the
11 Marcellus shale is, rather than
12 seeing it get tied up in the courts
13 for years. Doing a good job on this
14 then it will go quicker. I wasn't
15 going to say this, but it bother me
16 and perhaps this is my own personal
17 problem but it irritates me when I
18 read in the draft scope the constant
19 reminder of these anecdotal accounts
20 of the DEC safety records. It's 50
21 years without one instance of
22 groundwater contamination and I'm
23 frustrated with it because a little
24 research in the Department of Health,

1 between 1986 and 1988 documented 120
2 cases of groundwater contamination
3 directly linked to hydro-fracking and
4 based on a memorandum of
5 understanding -- and I'm sorry, its
6 past my three minutes. I just want
7 to based on a memorandum of
8 understanding the DEC came in and I
9 believe, according to officials that
10 I talked with, investigated it and
11 they couldn't draw conclusive
12 correlation between the well that was
13 being drilled, the gas well and the
14 muddy, methane, water or the absence
15 suddenly of well water that happened
16 as a direct result. And they said,
17 well, we didn't test it beforehand,
18 so we don't know. And I just think
19 that this legacy from the 70s, 80s,
20 90s to the present is part of these
21 incidents. That in spite of that,
22 has been Chautauqua County and many
23 instances the industry actually paid
24 for mitigation, paid for the new

1 wells, paid for extensive treatment
2 systems and still the DEC refused to
3 draw correlation. So I think that I
4 would like the DEC to remove those
5 type of things in the scope because
6 as long as its sanctioning, it's not
7 scientific and ultimately I don't
8 believe it's true. And I'll just
9 leave you with, we can't forget 2007,
10 North Brookfield where certainly this
11 wasn't exactly hydro-fracking they
12 were trying to -- I think it was
13 Arbor Management was to remove a
14 stuck well bit and blew out 14
15 private water wells. The caps of the
16 water wells came off like geysers and
17 citizens were left with methane
18 infused water or mine water or no
19 water at all and that problem
20 persisted for years. I hope, if that
21 doesn't constitute ground water
22 contamination, I don't know what
23 does. Thank you people for
24 listening.

1 ALJ: Next well hear from
2 Dorothy Fielder and then well hear
3 from Richard Creznar.

4 SPEAKER: I'm Dorothy Scott
5 Fielder from Maryland, New York. I'm
6 worried about the potential for
7 environmental harm if the hydraulic
8 fracking method is used for natural
9 gas drilling in our area. My primary
10 concern is for the safety of our
11 water, as many people are. I hope
12 that the standards for the well
13 casings are strong enough to prevent
14 any leakage into the aquifers from
15 that source. Furthermore the
16 chemical laden water is an anonymity.
17 Suppose that vertical cracks in the
18 upper layers, I think that companies
19 should be required to reveal
20 precisely what chemicals and
21 substances are being used. I am also
22 concerned about the practice of
23 dumping the ladened slurry down into
24 plastic lined storage pits. I get a

1 horrible picture in my mind and I
2 envision what would happen to such
3 poisonous bits if we have one leak
4 during flooding of June 2006. Massive
5 flooding could overwhelm the poisons
6 in the pits. Slurry water and its
7 toxic compounds into our streams,
8 ponds, lakes, rivers, aquifers as
9 well as poisoning our soil. What
10 safeguards will be imposed to prevent
11 such a scenario? I have read that
12 about 30 percent and I guess the
13 numbers vary, but the chemicals stay
14 in the earth. Regulations should
15 require more efficient recovery of
16 these chemicals in order to prevent
17 eventual contamination of our soil
18 and water by them. Where are these
19 toxic chemicals being disposed of?
20 Wastewater treatment facilities
21 cannot handle them. Where are the
22 processing plants for large amounts
23 of toxic chemicals used in this
24 mining? Water is a valuable and

1 essential resource and large
2 quantities are required for this
3 method of gas drilling. What
4 safegaurds will there be to avoid
5 withdrawing to much water from some
6 areas?

7 Any of the proposed drilling
8 sites that I'm aware of are on upper
9 elevations, many of which are reached
10 by town roads, some of which are
11 unpaved. These roads were never
12 constructed for heavy use, certainly
13 not by heavy mining equipment and the
14 many huge water tankers that would be
15 required. What will this do to our
16 town roads? And what measures will
17 you take to ensure that the mining
18 companies must repair any damage done
19 to the roads? I request that a
20 complete review of the proposed well
21 and gathering system shall be
22 required. Attention should be given
23 to erosion control, during and after
24 drilling. Topsoil should be

1 preserved and replaced at the end of
2 the test drilling or mining
3 operations and re-vegetation of the
4 areas that would be required. This
5 should be at the drilling company's
6 expense of course. Before mining
7 permits are granted, rather than at
8 least five business days before
9 drilling, involved municipalities
10 should be notified including town and
11 county water and road authorities and
12 agencies and planning boards were
13 they exist. There should be proof of
14 notification by certified mail.
15 Similar there should be proof that
16 adjacent landowners and the surface
17 property owner has been notified of
18 the application. Much more attention
19 should be given to the many
20 possibilities for environmental harm
21 before this type of natural gas
22 mining is allowed in New York State.
23 In fact, I move that that action
24 would be the alternative listed in

1 Section 7 of the draft scope
2 document, "the prohibition of
3 development of the Marcellus shale
4 and other low permeability reservoirs
5 by horizontal drilling and hydraulic,
6 high-volume fracturing.

7 ALJ: Mr. Creznar. After Mr.
8 Creznar we'll hear from Peter
9 Hudiburg.

10 PUBLIC: Richard Creznar from
11 Sullivan County. I'll review what I
12 have here. I have been concerned
13 about the ramifications of possible
14 gas drilling near my 60 acre farm in
15 Sullivan County. I became involved
16 in this in April of 2008 and I have a
17 few observations and suggestions.
18 There are numerous health issues, bad
19 water, air pollution, excessive noise
20 and so on associated with the
21 Marcellus shale type -- deposits of
22 gas drilling in other states. There
23 is no drilling in the Marcellus shale
24 deposits in New York State at this

1 time. That accepted, the New York
2 State Department of Environmental
3 Conservation should make use of the
4 experiences and knowledge gained from
5 these other states. Yet, the best
6 experts who have seen what has gone
7 wrong in those other states -
8 Wyoming, Colorado, Texas, Louisiana
9 etc. There is no justification for
10 not using the experiences of other
11 states. If you have a big problem,
12 you get the best you can to solve it.

13 Seven years ago I was
14 diagnosed with advanced prostate
15 cancer. The first doctor wanted to
16 try surgery. I decided that I needed
17 to find the best people to come up
18 with the best cure. They said I
19 would probably be dead in three or
20 four years if I opted for surgery.
21 The upshot is seven years after
22 getting the best possible treatment,
23 I'm still around. Now, what there is
24 here is more important than what

1 happened to just one person, me.
2 This is about a whole state. The
3 lesson I'm sharing with you is that
4 you find the best and you go with the
5 best. You don't go with easy or
6 cheap or quick or something as
7 important as this. You look at
8 places with similar experiences. You
9 search for experts who conclude, hard
10 rules and make evaluation. Get good
11 advice and don't just for from what
12 you hear on the computer. If the
13 present technology isn't there, to go
14 safely I don't know. But we cant
15 wish something to be, something that
16 isn't. The burden on someone who has
17 more knowledge than me to set the
18 right course. With this much at
19 stake, you as protectors of the house
20 of New York State citizens and the
21 environment can question to make
22 exceptions of New York's industrial
23 zone without making use of the
24 information -- all information out

1 there. To offer a cliché, it's not
2 better -- it's a lot better to do it
3 right the first time than it is to
4 try to fix it after it's broken.
5 That's my statement. Then you from
6 the DEC, you have to have the will to
7 do things right. Thank you.

8 ALJ: After Mr. Hudiburg we'll
9 hear from Stacie Edick.

10 PUBLIC: I'll make many of the
11 same points, but from a slightly
12 different perspective because I think
13 they bear repeating. The DEC and
14 it's GEIS and DSGEIS are ignoring
15 multiple instances of, for instance
16 fracked fluid bubbling up to the
17 surface during fracking in Wyoming
18 area or 28 miles of contamination
19 fluid in Wyoming aquifers, has
20 already been mentioned. Natural
21 fractures can already exist from gas
22 extraction to the surface. Water
23 fracking or hydraulic fracking will
24 create many more fractures, possibly

1 polluting water, air and strata.

2 There are over a thousand cases of
3 contamination of drinking water
4 documented by the Oil and Gas
5 Accountability Project in other
6 states from drilling, fracking and
7 surface spills and frack fluid pits
8 overflowing or leaking.

9 The Division of Mineral
10 Resources is involved in natural
11 resource exploitation, not
12 conservation. DEC regulations are
13 laughably inadequate. Requiring, for
14 instance only 100 foot setback for
15 private residences from gas wells.
16 Municipalities in Fort Worth, Texas,
17 on the other hand, require setbacks
18 from 500 to 1,000 feet. That's local
19 zoning laws. In New York State were
20 not allowed local zoning laws when it
21 comes to gas regulations. They also
22 require screening or walls to reduce
23 noise and visual pollution. On this
24 subject of setbacks, layering of

1 water wells, for instance, a water
2 well was exploded by a gas driller,
3 fracking their gas drill from 750
4 feet away. A hundred foot setback is
5 laughably inadequate. How can people
6 accept the DEC's assurances that our
7 safety and health is going to be
8 assured. There are no recent DEC
9 standards for determining the
10 presence of water recharged areas
11 other than those already officially
12 designated as wetlands, so if you
13 happen that you live in an area or a
14 recharged area, as I do, on a
15 hillside, where the water area
16 straight below us is fractured shale.
17 And I know that there is movement
18 from the surface, thousands of feet
19 down to areas, lower levels, down the
20 hillside. Why should I believe or
21 why should I feel assured that a gas
22 drilling operation is not going to
23 contaminate my area. There are no
24 DEC standards for addressing

1 fractured shale aquifers which are
2 present on my hillside. Seriously,
3 flawed technology and a legal system
4 in this state and throughout the
5 United States should not be allowed
6 the use of our valuable,
7 uncontaminated natural resource,
8 water. Without it, our most
9 essential resource, what can we do, I
10 mean, that is the basis for all life.

11 ALJ: Sir.

12 PUBLIC: Okay. This water can
13 be used to be over and over again,
14 its when its seriously contaminated,
15 as this fracking process will
16 guarantee. What's to be done with
17 that water. The DEC does not concern
18 itself with that, the Delaware
19 Authority and the Susquehanna River
20 Authority, they're not concerned with
21 that either. The treatment
22 technology has not been adequately
23 developed. That means that not only
24 people in our area will probably be

1 contaminated, but also people far,
2 far away down stream. And that the
3 DEC would allow local sewage
4 treatment plants to treat this waste
5 water when its not adequately
6 documented exactly what's in the
7 waste water is just unconscionable.
8 So waste water management can take
9 fives day -

10 ALJ: Sir.

11 PUBLIC: People earlier had
12 not been seriously regulated as to a
13 time limit, there is value to
14 regulation. Id like to make that
15 point. ALJ: Stacie Edick, after
16 Ms. Edick well hear from Mr. Griffen.

17 PUBLIC: I have several
18 comments, Ill skip a few. One, the
19 DEC should -- on page 42 the
20 prohibition and development of the
21 Marcellus shale from horizontal
22 drilling and hydraulic high volume
23 fracturing. Failing this, because
24 the environmental impact statement is

1 intended to include the effects on
2 the human environment, the health
3 impact assessment must be included.
4 A five-year moratorium on this
5 drilling will allow us time to
6 prepare a completely new GEIS
7 including a health impact assessment.

8 Three, as the GEIS is a
9 document for public review, the DEC
10 wants to include raw data. Sources
11 of the data, a valuation of conflict
12 of interest with the sources. The
13 methodology -- so that the public can
14 make informed comments. Four, fluid
15 handling on the site. "Before
16 fracturing, fresh water sand and any
17 other additives are delivered
18 separately from off site in
19 accordance with DOT regulations.
20 Additives may be delivered in solid
21 form -- solid or liquid form in
22 sealed vats, tanks or other
23 containers." As these additives pose
24 the greatest environmental threat,

1 this regulation needs to be
2 extensively tightened. These
3 undisclosed additives, since they are
4 undisclosed, must be considered as
5 hazardous and toxic materials and
6 must be regulated with such -- tanks
7 must be sealed, secured against
8 vandalism or theft. Placed in a
9 secondary confinement area in case of
10 a spill, vats or other containers
11 must never be allowed, 24 hour
12 security must be provided whenever
13 these highly concentrated additives
14 are on the site. Five, fluid removal
15 from on site. Fluids should never be
16 stored in a pit for natural removal
17 considering the rainfall from 2005
18 and 2006. In Central New York fluids
19 must be withdrawn directly into on
20 site, completely self-contained,
21 closed waste water treatment systems.
22 Failing to do this the DEC should
23 identify and provide a list of New
24 York State water treatment facilities

1 capable of handling these wastes, how
2 much each facility can handle per
3 month. Gas companies must identify
4 the properly permitted hauler and
5 include the wastewater treatment
6 facility they will use, get
7 confirmation from the facility that
8 their delivery will not exceed the
9 limits in the expected month of
10 delivery and this information must be
11 included in the permit application.
12 Six, DEC must list to the public a
13 generic list of chemicals to test for
14 in well water. This can be done
15 without disclosing any trade
16 secrets. Eight, DEC wants to risk
17 --address the issue of a drill
18 cuttings because the Marcellus shale
19 is considered to be relatively highly
20 radioactive and because horizontal
21 drilling will produce much greater
22 quantities, drill cuttings must be
23 taken to a low level radioactive
24 waste facility. The exact facility

1 should be identified by the gas
2 company in the permit application.
3 Nine, whether the referenced,
4 referred to as cumulative or rolling
5 impacts, the DEC can in its current
6 modeled software to create all or
7 rolling buildout models. The maximum
8 sustainable impacts must be
9 determined in advance and permits
10 granted or denied accordingly, as
11 well as according to how many
12 inspectors you have.

13 ALJ: It's time.

14 PUBLIC: Okay. 10, DEC must
15 provide a national gas spill
16 violation reporting hotline with the
17 phone number. All calls should be
18 reported. All reports investigated
19 promptly. A four-day response time
20 to a reported spill is not acceptable
21 and must be must be addressed by the
22 company before any further permits
23 are issued. 11, the DEC has the
24 authority to prevent and abate water,

1 land and air pollution. As such the
2 DEC directive to provide any support
3 required to appeal Article 23 which
4 supersedes local laws related to oil
5 and gas development. Therefore,
6 depriving certain local governments
7 right to home rule as provided by the
8 New York State Constitution and its
9 right to protect its own local
10 environment and residents.

11 Furthermore DEC's staff should be
12 directed to provide any support
13 required to repeal compulsory and
14 occasional unlawful.

15 ALJ: Thats it.

16 PUBLIC: -- taking of mineral
17 rights for private property.

18 ALJ: Mr. Griffin.

19 (NO VERBAL RESPONSE.)

20 ALJ: Andrew Mason. Let me
21 just run quickly through down the
22 list of names I have here; Joan
23 Tubridy.

24 PUBLIC: Here.

1 ALJ: Irene Kline.
2 PULBIC: Shes not here.
3 ALJ: Ken Jackie.
4 (NO VERBAL RESPONSE.)
5 ALJ: Alan Springer.
6 PUBLIC: Here.
7 ALJ: Andree Conklin.
8 PUBLIC: Here.
9 ALJ: David Brehm.
10 (NO VERBAL RESPONSE.)
11 ALJ: Sandy Florianne.
12 PUBLIC: Not here.
13 ALJ: Michael P. Joy.
14 PUBLIC: Here.
15 ALJ: Kristina Turechek.
16 PUBLIC: Right here.
17 ALJ: Ann Sauter.
18 PUBLIC: Yes.
19 ALJ: Thomas Pritchard.
20 PUBLIC: Here.
21 ALJ: John Wilson.
22 PUBLIC: Here.
23 ALJ: Darrell Rose.
24 PUBLIC: Here.

1 ALJ: Norman Farwell.

2 PUBLIC: Farwell.

3 ALJ: Laurel Buckmaster.

4 PUBLIC: Here.

5 ALJ: Roy Lockner.

6 PUBLIC: Save the water.

7 ALJ: Was that your comment?

8 PUBLIC: No.

9 ALJ: James Little.

10 PUBLIC: Here.

11 ALJ: Charles Rowe.

12 PUBLIC: Here.

13 ALJ: Those are the ones I
14 have left and we'll go until they
15 throw us out.

16 PUBLIC: Ill take care of the
17 chairs.

18 ALJ: I really have to insist
19 that at this point if you have a
20 written statement youre just going to
21 have to submit the statement.

22 PUBLIC: Okay.

23 ALJ: Go ahead.

24 PUBLIC: My name is Andrew

1 Mason, I'm the conservation chair for
2 the Delaware-Otsego Audubon Society.
3 Our concern, it hasn't been mentioned
4 so far tonight, is regarding effects
5 on wildlife. The draft scope doesn't
6 discuss the potential impacts on
7 significant habitats and the
8 dangerous impacts on threatened
9 species. The cumulative impact of
10 well drilling on the environment
11 should also be addressed in the GEIS.
12 An isolated instance of gas drilling
13 may have a minimal impact, however,
14 multiple drilling sites across a
15 broad area may adversely affect
16 species already in precipitous
17 decline, such as grassland
18 fragmentation and habitat disturbance
19 from service roads, pipelines and
20 construction activities.

21 We also have a real concern
22 over the possibility of making open
23 pits for storing the waste water from
24 the wells. This poses a particular

1 threat to waterfowl. The known
2 materials in these fluids are toxic
3 and the unknown materials may be even
4 more so. It is imperative that these
5 issues be added to the scoping
6 document and examined in the dsGEIS.

7 So we think the document needs
8 greater attention given to wildlife
9 impacts of fragmentation and direct
10 impacts. Thank you. ALJ: Joan
11 Tubridy and after Ms. Tubridy we'll
12 hear from Alan Springer.

13 PUBLIC: I'm Joan Tubridy, I'm
14 representing the Town of Meredith,
15 Delaware County. I was a dairy
16 farmer and subsequent farmer of
17 several things for about 23 years, we
18 raised beef, potatoes, many products.
19 We were certified organic for many
20 years. Subsequently became a middle
21 school teacher which I'm currently
22 doing.

23 I'm just summarizing from my
24 statement here. In my work as a

1 teacher and farmer I've come to value
2 water. As a social studies teacher
3 I've learned that the world is
4 experiencing a water crisis and the
5 water covers two-thirds of the earth.
6 Only 800th of a percent of New York's
7 water is available to humans and by
8 2020 our demand for water will
9 increase by about 40 percent. Many
10 statements have been made already
11 about the effects on water. I just
12 would like to ask the DEC, what steps
13 will be taken to pre-impose test
14 water resources so that there's a
15 baseline from which to measure
16 contamination from gas drilling? Who
17 will be responsible for funding this
18 water testing? Without knowing the
19 types of propriety chemicals used by
20 gas drilling companies, how will we
21 know what to test our water for?
22 Once contamination is found in our
23 water systems, whether from chemicals
24 or from gas itself, who will be

1 responsible for providing us with
2 clean, potable water? Given the
3 possibility that fracturing fluids
4 contain toxic chemicals may migrate
5 to rock layers over time, how long
6 will the responsibility for water
7 contamination be endured? Who will
8 enforce compensation for those
9 affected? And what comparable
10 studies will the DEC research come to
11 their conclusions about how to deal
12 with this real threat to our clean
13 water?

14 I'm appreciative of the
15 opportunity to make my comments, but
16 it does irk me that many of us have
17 spent countless hours researching
18 this topic as volunteers because of
19 the carelessness of the DEC in their
20 scoping document. The 1999, '98
21 scoping report stated that the
22 environment remains largely outside
23 the mainstream of everyday human
24 consciousness and is still considered

1 an add on to the fabric of life. I
2 fear that though we must consider
3 water to be the very essence of life,
4 we're willing to consider it an add
5 on and make it a lower priority than
6 money. A United States
7 representative from the Delaware
8 County Board of Supervisors does not
9 represent my concerns. He mentioned
10 muddy roads is his concerns, my
11 concern is water. At some point
12 we're going to have to explain to our
13 children and grandchildren and
14 countless generations beyond why we
15 were willing to burn down the house
16 to keep warm for one night.

17 ALJ: Alan Springer, after Mr.
18 Springer we'll hear from Andre
19 Conklin.

20 PUBLIC: Good evening, my name
21 is Alan Springer, I'm coming from
22 Morris. As a bit of background, I
23 have been a geo-technical civil
24 engineer, a geologist person for over

1 40 years and including training and
2 work as an environmental
3 hydro-geologist. When I look through
4 the existing final GEIS and the
5 supplemental, there are a couple
6 things that I noticed very quickly.

7 One is there were a number of
8 recommendations that seem to still
9 exist in the final GEIS for studies
10 and other information that the people
11 that wrote it wanted to have done and
12 it hasn't apparently occurred. I
13 would like to see the DEC look at
14 those recommendations and determine
15 whether or not they still are
16 invalid.

17 Two, there's a section in the
18 final GEIS that deals with floodplain
19 management and regulations and I
20 believe they need to talk to other
21 people in the DEC, particularly
22 William Leonard, who is the state
23 floodplain manager for the DEC in New
24 York State because there are

1 regulations regarding development in
2 the floodplain and those are a local
3 responsibility and only a local
4 responsibility and may not be
5 abrogated by any county or state
6 agency or that state will find itself
7 in violation of the National Flood
8 Insurance Program.

9 Okay, also I would like to see
10 in the supplemental some definitions.
11 There are no definitions particular
12 to the type of drilling that is being
13 involved. For instance, when you're
14 talking horizontal drilling, where is
15 this drilling actually occur. Is it
16 only at the pad or is it the end of
17 the drill bore? Which when you're
18 drilling horizontally, you can go 6
19 to 9,000 feet. -- 2,000 feet from a
20 municipal water source doesn't mean
21 anything if you're going underneath
22 it. So you have to know what are
23 your definitions for the type of
24 drilling you're dealing with.

1 In addition, one thing that I
2 am concerned about, I'm not nearly as
3 concerned about the subsurface
4 fracking fluid contamination of water
5 because I know how slow water moves
6 through the subsurface. One thing
7 that does move relatively rapidly
8 through the subsurface, however is
9 gas and one of the primary concerns
10 from the Marcellus would be
11 acceleration of the radon gas into
12 the local water aquifers. The last I
13 knew there was only one laboratory in
14 the entire United States that could
15 test for radon in water. All of the
16 radon test kits that you will find
17 are for radon in the air. Yet, water
18 is one of the primary ways it can
19 make it into your house, when you're
20 taking a shower, when you're running
21 water in your sink to wash dishes,
22 that water will be aerosolizing and
23 radon can be coming into your air
24 unknown, unseen, unsmelled, but it's

1 still like smoking a couple packs of
2 cigarettes while you're taking that
3 shower. So there is something that
4 needs to be identified in this
5 supplemental because when you're
6 including multiple frackings you are
7 going to be sending pulses of
8 pressures through that subsurface and
9 that radon gas can be accelerated
10 quite quickly. It doesn't have much
11 of a half life, so that the fact that
12 for instance Norwich which is
13 probably 3,500 feet to 4,000 feet
14 from the Marcellus has a high-level
15 of radon gas in gravel areas. That
16 could also be occurring in any well
17 that people have, especially the
18 deeper wells. And getting that
19 baseline for that is going to be very
20 difficult, until there is some form
21 of testing. I'm hoping that you get
22 this done, I would really like to see
23 the drilling occur and occur safely.
24 Thank you.

1 ALJ: Thank You. Andree
2 Conklin, then we'll hear from John
3 Wilson.

4 PUBLIC: Everybody who knows
5 me knows I love to talk, but tonight
6 I won't, not for very long. I just
7 have two things to add to all the
8 other comments. One word that comes
9 to mind is the word mediation and it
10 doesn't seem to me that there's any
11 amount of money or rebuild of wells
12 that can remediate poisoned water.
13 It doesn't seem that there's any
14 possible way to fix the china junk
15 once you've dropped it into a million
16 pieces. I live in a little valley
17 where the water mysteriously comes
18 out of the ground, brilliant and
19 never freezing and trout filled and
20 crystal, crystal clear and green.
21 The land has been leased within a
22 mile from me, much less than a mile,
23 half a mile. Which is higher and as
24 people know who know geology, it's

1 really questionable what can happen
2 to all that very tenuous, magically
3 erupting water when people start
4 knocking around 8,000 feet down and
5 8,000 feet sideways. It makes me
6 very nervous.

7 The second dent in this water
8 thing is that I do know people who
9 have signed leases ignorantly and
10 quickly and would like to get out of
11 them, but they can't. That is not,
12 to me, a democratic process. I don't
13 know what DEC can do about that. But
14 that does not seem like a free and
15 representative form of American
16 democracy. If people are trapped
17 because they signed without knowledge
18 and now that we have knowledge, we
19 should have the power. Thank you.

20 ALJ: After Ms. Florianne,
21 we'll hear from Michael Joy.

22 PUBLIC: Instead of Mr.
23 Florianne you're going to get Tom
24 Wilson who is the Director of Edison

1 Energy and former President and CEO.
2 I've been in the gas business for 28
3 years. I'm involved in the Antrim
4 shale which is the first shale plate
5 in the United States in Michigan. I
6 live in Michigan. I was involved in
7 the Power River Basin and the Coalbed
8 Place starting in 1998, in Kansas and
9 Coalbed Fayetteville shale in 2005 to
10 the present. Barnett shale in 2005
11 to the present. With any of the
12 plays the land owners did not own the
13 minerals in many cases and did not
14 have control over the surface. It's
15 very fortunate that New York mineral
16 services are very rare and you all
17 have the ability to lease or not
18 lease your land and derive the
19 benefit from development on your land
20 which frankly as a person in the
21 industry it pains me to see minerals
22 held by others and surface owners
23 having to put up with the activity on
24 the surface and not get the benefit

1 of it. Fortunately that's not the
2 case here.

3 Slick water fracks or
4 hydraulic fracturing has been used in
5 our industry for 30 years. Many,
6 many, many of the comparisons here
7 today are compared to Coalbed Place
8 where fracks are performed in a
9 freshwater aquifer. In the Marcellus
10 shale it is not in a freshwater
11 aquifer, it's well below the surface.
12 We're trying to treat a zone that's
13 about 100 feet thick with these slick
14 water fracks and the idea that those
15 slick water fracks are going to go
16 all the way to freshwater aquifers,
17 geologically is something that's
18 simply not going to happen and it's
19 impact is very well-documented. I --
20 in all these other places I've been
21 through similar public hearings,
22 never have I been involved in a play
23 where no wells were drilled before
24 the play even started. Had drilling

1 been allowed to go forward, maybe
2 there would have been about 25 wells
3 in the Marcellus shale this year.
4 Probably the majority of them would
5 have been vertical. Next year on the
6 outside, maybe there would have been
7 150 wells drilled. Again most of
8 those vertical. Horizontal wells
9 lessen surface impacts which is good
10 for landowners. We've heard -- there
11 was many comments on refracks, that's
12 not true. You frack them once and
13 you're done. Up to eight stages, the
14 more stages you have, the more water
15 you use. The water will be reused,
16 it will be recycled. As the industry
17 moves forward that water will be
18 treated and reused in fracks. As it
19 has in all these other places. The
20 industry will work with delivery
21 systems other than trucks. Truck
22 traffic is bad for us also. Our
23 gathering systems will include water
24 lines that will move water from one

1 well to the next, so we don't have to
2 use the roads to do it.

3 I've been active in New York
4 for eight years. The DEC has a very
5 extensive regulatory regime in place.
6 My company has made a very
7 significant investment in New York
8 and quite frankly we're being harmed
9 by the moratorium that's currently in
10 place. New York landowners have been
11 harmed as the investment has left the
12 State and New York economy has been
13 harmed. We have not been able to see
14 any of the data that we would have
15 gotten from Marcellus drilling had it
16 been allowed to take place and it
17 would have been valuable in this.
18 Also the DEC's regulatory program is
19 evolutionary. I've witnessed the
20 regulation of the Trenton Black River
21 and it has evolved as time has gone
22 on. The Marcellus shale would no
23 different. Whatever regulations are
24 in place today are not necessarily

1 the only regulations that exist and
2 as time goes on those will evolve
3 also as we see the impacts of
4 drilling and what needs to be
5 changed.

6 So I believe the scoping
7 document is, at this point in time,
8 overreaching, it goes too far. I
9 believe the moratorium in place is
10 detrimental to the economy of New
11 York, to land owner of New York and I
12 do support the DEC's review of the
13 impact statement and hope that they
14 can complete that process as quickly
15 as possible. Thank you.

16 ALJ: Mike Joy, after Mr. Joy
17 we'll hear from Kristina Turechek.

18 PUBLIC: I'm Dr. Michael Joy,
19 I'm a geologist, I hold a PhD from
20 the University of Buffalo where I do
21 research of carbon formations and the
22 use of shale, the targeted shale
23 formations to be exploited in New
24 York. I'm also a lawyer. I do my

1 legal work currently at the
2 University of Buffalo and I now have
3 a position on the faculty of the
4 University of Buffalo where I teach
5 oil and gas law as well as trans
6 energy in the environment. I devoted
7 about 15 years of my life to the
8 academic study of both the science
9 and the legal regimes for oil and
10 gas. And about 10 years in
11 professional practice both teaching
12 and advising companies on oil and gas
13 legal matters and regulatory matters.
14 Frankly, I spent most of the time
15 working with or advising the DEC and
16 I know them well enough to know that
17 they will not, in all likelihood,
18 defend themselves against the hyper
19 critical attacks that I heard tonight
20 against them. So I will.
21 Frankly I find it offensive and
22 they're unfounded. The DEC Central
23 staff is approximately 400 plus
24 commuters, with professional

1 experience amongst them regulating
2 the oil and gas industry and frankly
3 they do an exceptional job. I've
4 been advising clients for the last 10
5 years under the existing GEIS about
6 how to drill oil and gas wells, it's
7 proven to be very effective and it's
8 very comprehensive. There are
9 already 75,000 wells drilled in New
10 York, 14,000 of those wells
11 approximately are still in
12 production. New York has produced
13 approximately 55 billion cubic feet
14 of natural gas in recent years of
15 drilling. Nearly every well drilled
16 since about 1960 has been
17 hydro-fractured.

18 It's not an accident that most
19 of your concerns that we've heard
20 tonight are anecdotal or they come
21 from other states. It's because
22 those problems occurred under
23 different geological conditions and
24 under different regulatory

1 conditions. New York has some of the
2 most modern, effective and current
3 regulations that you will find in any
4 state in the country. In 2005 they
5 undertook a major, in fact, complete
6 overhaul of the oil and gas solution
7 industry to modernize it. They
8 updated it again in 2008 and you will
9 not see another state put that much
10 energy to regulating this industry.

11 I too, like a lot of people
12 have pages of comments and I'm going
13 to skip over. Like it or not, we are
14 all energy consumers. We're sitting
15 in this room, consuming energy today.
16 Where does it come from? Most of us
17 wouldn't know other than to flip the
18 switch, but frankly most of it in New
19 York comes from fossil fuel, full
20 fired burning electricity generated
21 appliances. Well, we all know that
22 clean burning natural gas is the best
23 and most reliable and quickest
24 alternative to reducing green house

1 gas emissions and meets domestic
2 energy needs.

3 I'll jump to the conclusion.
4 It's time we start taking
5 responsibility for ourselves instead
6 of just pointing concerns from other
7 places, start meeting our own needs,
8 start producing our own energy and
9 using the economic prosperity of our
10 land to improve or own energy needs
11 and stop looking to Albany to fix our
12 problems and gripe about what's
13 happening and start doing it
14 ourselves.

15 ALJ: Thank you. Kristina
16 Turechek, after Ms. Turechek we'll
17 hear from Ann Sauter.

18 PUBLIC: Well, I'm a musician,
19 I will have to improvise here. I
20 have three stories about noise which
21 is what brought me here tonight. I
22 will not tell them all. But two of
23 them I will and one of them involves
24 polluted water by a gas driller. At

1 any rate, I will tell one of the
2 stories. I recently -- it's called
3 "Un-well", it's about a man -- it's
4 from a Fort Worth newspaper, Fort
5 Worth Weekly. His name was Charles
6 Morgan, formally an Air Force Major
7 whose eardrum was ruptured from I
8 think it was 11 compressors, gas
9 compressors, a mile away from him.
10 That's startled me, I didn't know
11 that could happen. As I say, I'm a
12 musician and that kind of thing
13 scares me. That should happen to no
14 one. Actually that's the least of
15 his problems, he suffers from
16 terrible headaches, jumping legs, sky
17 high blood pressure and I think he
18 said that sometimes he just has to
19 get a hotel room somewhere far away,
20 just to get a good night's sleep.
21 What he suffers from is PAD,
22 psychoacoustic disease which affects
23 your whole body. These are -- it
24 comes from low frequency sound which

1 comes from compressors. The low
2 frequency sound is very long wave
3 lengths. So that when you test for
4 high decibel levels and safety you're
5 really testing partly for the wrong
6 thing. Ear plugs won't help in
7 situations like that. This is a
8 sound that can go through walls, that
9 you feel it in your body it's like
10 when kids ride down the road using
11 the boom box car -- you know, the car
12 shudders. My body shudders when I
13 hear that. I won't go into
14 everything. There is a lot of
15 research out there, most of it's been
16 done in Europe, Scandinavia,
17 Australia. A lot of -- several
18 things I ran across were done in
19 Portugal, Costello, Bianca, Ariana.
20 I think they're part of a university
21 study. They have done a lot of
22 research on low frequency noise. I
23 think it's partly a quote, the whole
24 body systemic pathology characterized

1 by normal -- abnormal proliferation
2 of extra skeletal system, it's caused
3 by excessive exposure to low
4 frequency noise.

5 I'll just read you some of the
6 things that happened. Thinking of
7 cardio-vascular structures, hardening
8 in the bowels, heart attacks, high
9 blood pressure, depression, increased
10 irritability and restlessness,
11 behavior patterns. Apparently people
12 sometimes, they go off the deep end
13 and they don't even know it, they
14 forget because their brains have
15 changed. A tendency for isolation,
16 decreased cognitive skills,
17 Alzheimers from toxic agents, causing
18 malignant tumors and brain lesions,
19 oversensitivity to sound. People who
20 work on aircraft, work on submarines,
21 people who live near airports.

22 The reason I bring this up is
23 that it has been explained to me,
24 actually it's been explained that the

1 hydro-frack -- these horizontal wells
2 will be fracked over and over again
3 and we just were told that they're
4 only fracked once, so who do I
5 believe, I don't know. At any rate
6 one of the differences between the
7 Marcellus shale and the TBR, Trenton
8 Black River, is that the TBR has its
9 own gas pressure and will come out
10 and connect with its own pipeline
11 pretty much by itself because it's
12 under its own pressure. But it's my
13 understanding that most of the
14 Marcellus shale gas because they have
15 to force so hard to get it out, it
16 doesn't have its own pressure. So
17 what you have is a compressor
18 upstairs pushing the gas along these
19 long pipelines, for a very long time.
20 We've been told that 10, 20, 30, 40,
21 50 years, I don't know how long these
22 wells will last.

23 At any rate in Section 4.1.1,
24 it does talk about noise impacts,

1 short term, we understand that. Long
2 term, they actually state as it was
3 said earlier, the well site is quiet
4 after the drilling has begun. Well,
5 if you have compressors, you need
6 them, it seems to me they're going to
7 stay there and stay there and stay
8 there, I don't know how you can avoid
9 it.

10 In Section 1.5, there was
11 mention of segmentation. Apparently
12 this post drilling production phase,
13 the transition is left to the PSC and
14 I think if this is true that these
15 are going to stay for years and years
16 and they're going to need compressors
17 there, that's sitting and in the
18 original permitting this has to be
19 researched. Like I said a lot of
20 this research is fairly new. The low
21 frequencies have to be thought of now
22 because they're dangerous. There's
23 been a lot of European studies
24 because of the wind turbines, the

1 wind farms. One of the studies says
2 you need to be a mile and a half from
3 these farms to avoid them. Anyway
4 the real experts need to research
5 them. I think they are all in the
6 business. Thank you.

7 ALJ: Ann Sauter, after Ms.
8 Sauter we'll hear from Darrell Rose.

9 SPEAKER: Hi everyone, my name
10 is Ann Sauter. I'm a resident of
11 Upstate New York for a long time, but
12 the last two years I've spent in
13 Kansas, oil and gas hell hole. It is
14 the most disgusting thing you have
15 ever seen in your life and if you
16 haven't smelled it, you can't even
17 imagine how horrible it is. I lived
18 in Great Bend, Kansas which was a
19 little town and now is a buzz town.
20 And now they're back with trucks
21 looking for gas pockets again. And
22 you, Mr. Guy, who is out there, Mr.
23 Guy who is defending DEC, lawyer guy
24 from Buffalo. I would like to say,

1 you think our DEC knows what it's
2 doing about stuff and it protects
3 people, I've moved for the last
4 freaking time, I'm not moving again.
5 I've moved four times because I have
6 been poisoned and I'm not doing it
7 again and you can ask Ms. Blacklock
8 here, she's treated my husband's
9 kidneys for water that was supposed
10 to be safe, but it turned out to have
11 300 parts per million of TCP, he's
12 lucky he's not dead, that was
13 declared safe. That was one place we
14 had to move from. Then on Long
15 Island, I'm sure all you DEC people
16 have heard the chemical, agriculture
17 chemical temig, you've heard of that?
18 Well it was guaranteed, signed,
19 sealed and delivered, it couldn't
20 possibly go through the sand and get
21 into the drinking water, no way,
22 we're all safe. Oh, no, nothing can
23 happen. Well, after all of my family
24 got poisoned by that and then finally

1 they said, oh, oops, we made a
2 mistake and my father still has -- my
3 father who has dementia, now has
4 things like this in his basement to
5 try and make his water drinkable
6 again and that doesn't even mitigate
7 half the water in the house. We have
8 to still drink out of an RO, reverse
9 osmosis. Then in Kansas, I lived in
10 Kansas near one of those gas things
11 and if you think, oh, you're going to
12 move to a nice luxury, rural area.
13 People will talk about wheat fields
14 and this awesome college. Well,
15 don't think about opening your
16 windows, talk about reek, it will
17 knock your freaking socks off, the
18 stench. They put this stuff in it so
19 that the gas itself doesn't have a
20 smell. Of course, the part where the
21 methane gas all over the place is
22 cracked, but then they put this stuff
23 in so it has your smell, it will take
24 the paint off a car it smells so bad.

1 So you'll have to turn your air
2 conditioner on to use a little bit
3 more of that fossil fuel to run your
4 air purifier to get the stink out.
5 For anybody who thinks that the gas
6 industry is like so great, it's going
7 to be a money bonanza here. Well,
8 when you start seeing all the little
9 jugs in every convenience store and
10 the next little kid that's got brain
11 cancer or something else, you won't
12 think it's so cheap. And when you
13 start seeing people drive home and
14 you're trying to sell your house or
15 get somebody to rent your house and
16 you have to drive by four or five of
17 these things, these things that reek
18 there. I was 40 miles north of
19 Greensburg and that's where the
20 tornado was that hit the entire town.
21 Well, the floods came and you could
22 see the slick on the water from all
23 these gas things. It was so
24 disgusting. And anybody who doesn't

1 think it can happen here, go out by
2 Kelly's Corners or go out when
3 there's an ice storm. And you think
4 a steel tank can protect you from
5 that, well forget it. That's not
6 even including some moron who decides
7 to shoot it up or something.

8 ALJ: Ms. Sauter, your time is
9 up.

10 PUBLIC: Okay, don't do it.
11 Don't let them drive us out of here.
12 It stinks like hell, it reeks and
13 they tell us that is smells like
14 money, that's what they say, it
15 smells like money. Well, it smells
16 like cancer and death and it's
17 disgusting. Don't do it.

18 ALJ: Darrell Rose is next,
19 after Mr. Rose we'll hear from Norman
20 Farwell.

21 SPEAKER: I'll give everybody
22 a few extra minutes. I've been
23 around this business for 39 years, I
24 don't glow in the dark, I don't have

1 any mutant children, I can hear every
2 word you said here tonight. I've
3 been around those compressors and I'd
4 like to thank the DEC for putting up
5 with what they're putting up with
6 from all these people.

7 PUBLIC: Aren't you lucky.

8 ALJ: Norman Farwell.

9 PUBLIC: In spite of the
10 thousand of hours that this document
11 probably represents, I think in the
12 end it is a shameful document. Not
13 because it's condescending and
14 dismissive, but many of the concerns
15 of those who it's supposed to protect
16 although it is. And not because it
17 truly avoids and totally ignores many
18 of the critical issues and concerns
19 that we have, although it does that.
20 And not even because this document
21 reveals a systematic and hopeless
22 ignorance of the modus operandi of
23 the oil and gas industry and its
24 universal contempt for the

1 environment, for truth for community,
2 for the future of life and even in his
3 single-minded obsession with the
4 pursuit of profit. Although it does
5 indicate an instance of that. I
6 think it's shameful for the simple
7 reason that it exists in this time
8 and this place. One of the world's
9 foremost scientists, Dr. James
10 Hanson, has reluctantly concluded,
11 after years of studying, that the
12 current atmospheric concentration of
13 CO2 probably threatens the long-term
14 sustainability of human civilization.
15 And here we are, with a straight face
16 and in all seriousness, contemplating
17 the recovery of trillions of cubic
18 feet of gas. Recovery, as if we just
19 dropped it down and now we can get it
20 back. We're going to take it out of
21 the ground, where it's doing no harm
22 and we're going to burn it.
23 Converting it into greenhouse gases
24 that will contribute to the melting

1 of glaciers, the catastrophic
2 increase in ocean sea level, the
3 displacement of hundreds of millions
4 of people, the desertification of the
5 world's bread baskets, the
6 acification of the oceans and the
7 consequent extinction of all fish in
8 all the oceans, among other bird
9 baths. This is not in the GEIS.
10 It's been said that we do not inherit
11 the world from our parents, that we
12 borrow it from our children. In
13 comparison to our ecological crime
14 against our children, our parents
15 economic crisis looks pretty small.
16 If we drill, drill, drill our great
17 grandchildren will wonder at our
18 greed and regret and inexplicable
19 ignorance that this document
20 symbolizes. Thank you.

21 ALJ: Laurel Buckmaster, after
22 Laurel Buckmaster we'll hear from Roy
23 Lockner, then James Little and then
24 Charles A. Rowe.

1 PUBLIC: Thank you. Hydraulic
2 fracturing uses enough pressure to
3 crack the rock of the Marcellus shale
4 thousand of -- into the surface.
5 While Tom Price, Senior Vice
6 President of Chesapeake, put it as
7 saying, this is a surgical technique.
8 I have here referenced in certain
9 documents from Texas, articles. This
10 article says the problem is, however,
11 the fracture simulation is a precise
12 science. And the only practicing
13 hydraulic fracking shale, in some
14 ways cracking the shale evenly, could
15 be thought of like -- it's not easy.
16 You may plan a fracture to go 1,000
17 feet, it might go 2,000 or 400 feet,
18 it's -- a professor of energy method
19 to -- seems to me that in light of 16
20 years of data gathered since 1992,
21 it's worth examining whether --
22 fractured others -- a veteran geology
23 solution of hydraulic fracturing and
24 whether this technology may cause

1 disturbances in other formations,
2 incapacitate -- an existing, such as
3 the vertical fractures of the
4 Marcellus. Thus being substances
5 start to travel through strata. I
6 would like to know if this could be
7 contributing to the existence of
8 conditions that led to the following
9 Western, PA, we're talking about who
10 had to give up SAP November deep gas
11 wells -- gas wells bump in our
12 ground water and drinking wells. I'd
13 like the to see the initial GEIS go
14 back to the beginning. The GEIS
15 discussed injection fluids, people
16 with injections now think that --
17 frackng wastewater. With 16 more
18 years of data, I noted that
19 Pennsylvania DES, -- from the EPA,
20 people live next to disposal have
21 not been -- Pennsylvanian geologist,
22 to the best of my knowledge nothing
23 changes at the State line. And the
24 GEIS -- consider what they know may

1 be what we don't know here. I'd like
2 to quote this from -- injection wells
3 are still controversial and many
4 scientists are concerned that leaks
5 from these wells will contaminate
6 groundwater and -- from 1984, 22 out
7 of 170 deep injection wells
8 contaminated water supplies. I note
9 that on page 13 of the draft scope --
10 gas companies -- examination of each
11 of the above various options -- that
12 may be suggested during scoping and I
13 am suggesting that there is no
14 acceptable disposal at this time and
15 high volume hydraulic fracturing
16 should be halted until there is.
17 Update 11 -- one of the bulletins
18 says quote "information about
19 fracturing, who does it, collected
20 from -- countless suppliers. This is
21 way too limited a scope --
22 Information from industry has -- it
23 is notoriously secretive and
24 deceptive, -- what I have here, what

1 I've put down. Industry should never
2 be the exclusive source of such
3 critical information. The phrase
4 independent research should be added
5 to the draft scope. I have here a
6 document that is written testimony
7 people -- of absence of oversight and
8 government reform - October 31,
9 2007. She has respected -- fracking
10 -- and no -- without work.

11 ALJ: Time is up.

12 PUBLIC: Times up? --
13 attendant presentation on independent
14 oil and gas -- has shown the -- where
15 fragmented. The presenters were --
16 extreme solution anywhere from one
17 quarter down to five gallons per
18 millions gallons of water. This was
19 supposed to make us look better. What
20 it brought home to me, was the
21 unimaginable toxicity of chemicals
22 that is a solution of one quarter
23 gallon to one million gallons. I
24 also added to the presenter -- well

1 that's really toxic, bio-side,
2 bio-side -- solution of the one
3 quarter, one gallon -- one quarter
4 gallon to one million gallons of oil.
5 Nothing there is really toxic.

6 ALJ: Ma'am, is that your
7 statement that you want to submit?

8 PUBLIC: That is, there is
9 much more but since I have to leave
10 here --

11 ALJ: James Little and then
12 Charles Rowe.

13 PUBLIC: Good evening. I'm
14 glad that people have stayed for the
15 end of the night, last but not least.
16 I hope the clan of oil and gas
17 drillers off in the corner over there
18 with their contempt for science and
19 their claim to be scientists, is
20 astounding. This is coming from the
21 SRBC's own documentation, gentlemen,
22 I hope you're paying attention and I
23 hope they're paying you enough to
24 stay here tonight to listen to me.

1 You should have left -- let a sitting
2 dog lie because I'm here as a dog and
3 you have a fight on your hands that
4 you will wish you have never gotten
5 into. In recent years, this is a
6 quote, groundwater withdrawals in
7 some areas is causing well
8 interference and the total amount
9 being withdrawn is at or approaching
10 sustainable limit causing local
11 depletion of groundwater and surface
12 water resources, local resource
13 depletion and environmental impacts
14 and future supply of water. That's
15 from the SRBC, gentlemen, that's from
16 one of your quarterly reports which
17 sadly are not up and coming as they
18 should be.

19 This little baby here is
20 referring to some investigative work
21 by pittsburghchannel.com about the
22 spread of brine on wells in
23 Pennsylvania in collusion with the
24 oil and gas industry. Something,

1 hopefully which our own DOT won't be
2 engaging in also, allowing for the
3 spreading of brine during the winter
4 or whenever this industry needs to
5 get rid of their toxic water that
6 they have no possible way of getting
7 rid of. The Mongrel River, does
8 that ring a bell over there, I hope
9 it does. The Mongrel River is so
10 full of dissolved solids right now,
11 that the treatment plants have been
12 ordered by the DEP to reduce their
13 intake of waste water -- produced
14 water from 20 percent of their
15 normal, down to 2 percent. That's
16 just the tip of the iceberg, as what
17 is approaching New York State.
18 Luckily, thanks for the Governor we
19 have, no pun intended, he has seen it
20 fit to tell the DEC to go back and do
21 their homework. A complete new GEIS
22 is what is needed and a five to seven
23 year moratorium to allow the
24 landowners that were hoodwinked by

1 these snake oil salesmen with their
2 first 5,000 -- and then they insult
3 my family farm friends with the 750
4 of which 25 was going to go to the
5 dairy princess who had seen better
6 days, that was doing their snake oil
7 sales for them. That's just
8 completely unsatisfactory. It's
9 unsatisfactory for the State of New
10 York to entertain anything less than
11 \$35,000 an acre they paid in
12 Louisiana to a fair deposit of shale.
13 The 30 percent deposit that tanker of
14 gas is really worth. It must be
15 money, please consider that. But
16 it's the water, it's the water, it's
17 the water. We should be building a
18 pipeline to Atlanta, Georgia to send
19 them our fresh water from our
20 reservoirs, from our rivers. This is
21 the most precious resource and don't
22 think you can come up here and
23 destroy it. I noticed that
24 at least one gas consultant walked

1 out and came back in with two bottles
2 of Dasani water. Bottled water is
3 supplied from the Hudson River, a
4 known earthquake fault. Yes, we have
5 earthquakes in New York State. We
6 get fracked every year up here, we
7 don't need you to come up here and
8 frack up our water. I see the other
9 man is working on his TSI. I've got
10 30 years invested in the TSI where I
11 do maple syrup production, I'd be
12 glad to send you my 10 percent pure
13 maple syrup just to leave the state.
14 As far as the coalbed people, yeah,
15 it would be nice to do testing, but
16 to do the testing is extremely
17 expensive. There's over 300
18 chemicals you need to test from what
19 Dan Colburn has told us, from luckily
20 being able to go to spill sites. He
21 thinks these fracturing of these open
22 pits in New York State should be
23 forbidden. The tank system should be
24 forbidden anywhere. Our floodplains

1 are precious and they do not --

2 ALJ: Sir, your time --

3 PUBLIC: I'm wrapping it up,
4 sir, I promise you. I just wanted to
5 make sure I got the clowns in the
6 corner. Offensive, I'll tell you
7 what's offensive, listening to
8 somebody that came up here with
9 supposedly a law degree and I don't
10 --

11 ALJ: Okay, may we have --
12 thank you. Mr. Little, then we have
13 Mr. Rowe.

14 SPEAKER: Energy is cause of
15 environmental problems, on the same
16 token technology can be part of the
17 solution if we have a political
18 wealth to rely on. I'm retired from
19 IBM Corporation, Endicott, New York,
20 a manufacturing plant that was listed
21 as one of the top ten emitting toxic
22 chemicals from their smoke stacks in
23 the 1980's. Consequently, imagine
24 workers, chemists and engineers

1 involved to see if there's a process
2 for less toxic chemicals ultimately
3 winning the EPA award, perhaps the
4 gas companies will follow suit. But
5 it wouldn't hurt for the DEC to
6 provide regulations to make sure this
7 happens. They have to set a
8 timetable to phase in.
9 Industry must be made to continually,
10 and I say this from practices which
11 is safe from hydro-fracking
12 materials. There's one new process
13 called nitrogen which is not only
14 more environmentally safer, but it's
15 said to extract three times more
16 natural gas, a win-win for the
17 industry and environmentalists. Its
18 also says that goes with recovery
19 systems say that no money is going to
20 recycling. I doubt the drilling
21 companies will invest in these
22 technologies to protect the
23 environment without DEC
24 intervention.

1 Some of my concerns. My
2 understanding is that Pennsylvania is
3 shipping some of the fracking
4 material to be injected into wells in
5 New York State, so I'd like to see
6 that banned if that's true. And the
7 concrete bridges and road have to be
8 replaced every three years, I don't
9 really believe that this won't happen
10 to the gas well casings. There's
11 still a lot of room for solution on
12 this. I own some land and the farmer
13 next door, he said that his well was
14 ruined just from the testing they
15 were doing and I guess he had to take
16 his tractor and take water out of the
17 lake to provide his family. I think
18 it should be a given that there
19 should be gas drilling near the
20 Finger Lakes. Thank you.

21 ALJ: Thank you.

22 PUBLIC: I'll make my comments
23 just short here. I am a dairy
24 farmer, I'm a fourth generation dairy

1 farmer. We've had the farm for over
2 100 years and we've got more
3 generations starting on this farm and
4 hopefully, it will be another 100
5 years. I am in a coalition, I'm
6 active in it. The reason we're in a
7 coalition is to let everyone know
8 what the effects are going to be, to
9 educate people. I'm in the Central
10 New York Landowners Coalition, we've
11 got 135,000 acres right now. There's
12 over 2,000 taxpayers in this
13 coalition and one of our things that
14 we would like to see, DEC, a lot of
15 things have been mentioned during all
16 the different hearings here. This is
17 the first one I've been to. But the
18 one thing that hasn't been said, the
19 DEC does set the minimum payment for
20 royalty. We'd like to see that
21 raised because in other states it's
22 higher. Like north of us, in Canada,
23 it's 40 percent. There is no reason
24 why New York State with the financial

1 crisis we have here today, that we
2 shouldn't be up around 20 or 25
3 percent because that does help the
4 state. That's all I'll say here and
5 I'll hand my paper, my testimony that
6 I was going to read, so I won't read
7 it all. Thank you.

8 ALJ: That concludes this
9 hearing. I want to thank you all for
10 your kind attention and your very
11 important contributions here tonight
12 in this scoping process.

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C E R T I F I C A T I O N

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.

NICOLE M. ROCKWELL