

CITY COUNCIL
CITY OF NEW YORK

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TRANSCRIPT OF THE MINUTES

of the

COMMITTEE ON ENVIRONMENTAL PROTECTION

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September 22, 2011

Start: 2:33 pm

Recess: 8:15 pm

HELD AT: Council Chambers
City Hall

B E F O R E:
JAMES F. GENNARO
Chairperson

COUNCIL MEMBERS:
Council Member Elizabeth S. Crowley
Council Member Peter F. Vallone, Jr.
Council Member Brad S. Lander
Council Member Stephen T. Levin

A P P E A R A N C E S (CONTINUED)

Paul Rush
Deputy Commissioner of Water Supply
New York City Department of Environmental Protection

Kimberlee Kane
Special Assistant to the Deputy Commissioner
Department of Environmental Protection

Eric Goldstein
Urban Program Director
Natural Resources Defense Counsel

Craig Michaels
Consultant, Attorney
Natural Resources Defense Counsel

Al Appleton
Environmental Consultant
Revett Minerals, Inc., Cooper Union, etc.

Cathleen Breen
Watershed Protection Coordinator
New York Public Interest Research Group

Dusty Horwitt
Senior Counsel
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Mackenzie Schoonmaker
Attorney
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Joe Levine
Founder/Co-Founder
New York H₂O/DCS/Citizens for Water

Wes Gillingham
Program Director
Catskill Mountain Keeper

A P P E A R A N C E S (CONTINUED)

Michael Lebron
Board Member, Damascus Citizens for Sustainability
Principal, New Yorkers for Sustainable Energy
Solutions Statewide

Hilary Baum
Founding Board Member
Food Systems Network NYC

Shuho Lene
Advocate, Member
Gray Panthers, Green Coalition

Eric Weltman
Senior Organizer
Food and Water Watch

Alice Alcala
Member
United for Action

David Braun
Member
United for Action

David Pablo
Member
United for Action

Buck Moorhead
Co-founder and Vice President
NYH₂O

Stephanie Lowe
Advocate

Ellen Weininger
Educational Outreach Coordinator
Grassroots Environmental Education

A P P E A R A N C E S (CONTINUED)

Aviva Rachmani
Ecological artist

Frank Edie
Concerned citizen

Brad Brooks
Concerned citizen

Anne Seligman
Concerned citizen

Marilyn Stern
Concerned citizen
Volunteer, United for Action

Margaret Rafferty
Nurse educator

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2 CHAIRPERSON GENNARO: --take their
3 seats. Ready to go? Good afternoon and welcome.
4 I'm Councilman Jim Gennaro, Chair of the City
5 Council's Committee on Environmental Protection.
6 Today we're holding a hearing on the Revised
7 Supplemental Generic Environmental Impact
8 Statement on Hydraulic Fracturing as it pertains
9 to New York City's upstate drinking water supply
10 infrastructure. And let me just calm down for a
11 little bit. I'm not, I'm not in the greatest sort
12 of zone right now, because I wanted everyone to be
13 able to be in the room and sort of hear the
14 hearing, and that's not happening. Okay. So, now
15 this hearing, when you look at the title, even
16 though it's talking mainly about New York City's
17 drinking water supply, and the tunnels and other
18 kinds of, other kinds of facilities that bring the
19 water down here, and we're certainly very, we're
20 very concerned about that, there are people in
21 this room that have concerns that go beyond that
22 scope. And we want to give you every opportunity
23 to make those, make those views known. And we'd
24 gave the hearing a title in such a way that would
25 open up people to talk about anything they want

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2 with respect to this revised document, which is
3 now the street. There are folks here to hear it,
4 there's people here presumably from DEC. Anybody
5 here from DEC? Just, I'm not going to ask you to
6 come up, I'm not going to ask you speak. Is
7 anyone here from DEC? In the room. Okay. Let
8 the record note that DEC is either blowing us off
9 or they can't get in the room, and also Dan, do me
10 a favor, make sure that Eric doesn't go too far,
11 'cause I'm going to need him to testify. Okay?
12 So he shouldn't be shuffled off. And so, we want
13 to give everyone an opportunity to get their views
14 on the record. So, like I said, that's why we
15 titled the hearing in this way, and DEC is not in
16 the room, so we will make sure to get this to DEC.
17 Let me go on with the rest of my statement. I've
18 spent almost two decades of my professional career
19 working to protect New York City watershed. Yeah,
20 okay, boilerplate. Next. [laughter] Okay.
21 We'll talk a little bit about the infrastructure
22 that we want to focus on. New York City operates
23 and maintains water tunnels and aqueducts spanning
24 almost 170 miles, from upstate down to the City,
25 in 45 shafts located both within and outside the

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2 boundaries of the watershed. In 2009, the New
3 York City DEP, who was here with us, produced a
4 technical study which demonstrated that there are
5 widespread geologic features, such as faults and
6 fractures, in the bedrock surrounding this
7 critical water supply. Am I coming through on
8 this microphone or is it going in and out? It's
9 going in and out? Okay. These subsurface
10 features intersect with the City's water supply
11 tunnels and other kinds of infrastructure, and can
12 go on for many miles. DEP's technical study
13 indicated that the subsurface features could serve
14 as pathways for the migration of gasses and
15 drilling fluids, which would expose the City's
16 water supply to many contaminants, and also to
17 elevated pressures that the aging aqueducts and
18 tunnels and pipelines are not designed to
19 withstand. DEP's findings at the least made it
20 clear that the State must address issues arising
21 from our region's geology generally, and threats
22 posed to New York City water supply in particular.
23 And we have testimony from the USGS. I'll be
24 referencing that when I'm, when the DEP panel
25 goes. And I'm going to talk about some of what

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2 the USGS had to say, which I think buttresses what
3 the DEP's own study of the local geology brought
4 out. The bottom line is that nothing should be
5 allowed to jeopardize and unfiltered and pure
6 drinking water supply for half the State. Many
7 people in this room care very deeply about this,
8 and many people in this room care about things
9 that go beyond the scope of the City's water
10 supply. And we are, we want to hear from them.
11 And so let me just thank some folks, I'd like to
12 thank the staff of the Committee for helping to
13 get this hearing together, I thank all the staff
14 on that. We have Council Member Liz Crowley,
15 Peter Vallone was here or is here, and there'll be
16 other members of the, of the Committee if--I was
17 going to make a little joke, but I won't.
18 [laughter] It gets to the ability to sort of get
19 in this room. But I--I'm not going to go there, I
20 think they'll let Council Members in. And with
21 that said, I'd like to welcome the panel, and very
22 grateful that DEP did the work that it did back in
23 2009, to put a whole bunch of signs on the record.
24 And that was given to the State back in 2009, and
25 all of that science notwithstanding, you know, the

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2 current version of the State's study that we have
3 now, you know, did not, you know, heed, you know,
4 much of that info that has to, you know, deal with
5 the buffer zone on the critical water supply
6 tunnels, and by my way of thinking, this is almost
7 like a, like a, you know, willful disregard of the
8 science. I don't know if that's some sort of, you
9 know, bargaining position that the Cuomo
10 Administration wants to, you know, take up to the
11 eleventh hour and then give a little bit. I have
12 no idea. I don't think State agencies should, you
13 know, willfully overlook critical science. But
14 that's why we're here, and so let's see if we can
15 move forward, and have the hearing, then I'll make
16 my views known to the Cuomo Administration. They
17 love me so much, I'm sure they want to hear from
18 me. And with that said, I want to welcome this
19 panel. We have Paul Rush, who's a Deputy
20 Commissioner for the Bureau of Water Supply; Dr.
21 Kimberlee, looks like Kane, DEP, Special Assistant
22 to the Deputy Commissioner. I want to thank them
23 both for being here. And without further ado, we
24 would like to swear the panel and give the
25 opportunity, Paul and Dr. Kane, to proceed with

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your good testimony.

COUNSEL: Would you please raise your right hand? Do you swear or affirm to tell the truth, the whole truth and nothing but the truth today?

PANELISTS: I do.

CHAIRPERSON GENNARO: Paul, thank you. Please state your name for the record and the floor is yours.

PAUL RUSH: Good afternoon, Chairman Gennaro, I am Paul Rush, Deputy Commission of Water Supply at the New York City Department of Environmental Protection. Thank you for the opportunity to testify on the revised Draft Supplemental Generic Environmental Impact Statement--the draft SGEIS is what we'll call it in the testimony--on hydraulic fracturing and the New York City drinking water infrastructure. Mayor Bloomberg has consistently held the position that New York City, the city is opposed to drilling for natural gas in the City's watershed using the technique known as horizontal drilling and high volume hydraulic fracturing: hydrofracking. The Administration based this

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2 position on, among other things, the final impact
3 assessment study commissioned by DEP which
4 concluded the current technologies and practices
5 used in natural gas drilling and exploration are
6 incompatible with the operation of New York City's
7 unfiltered water supply system, and pose
8 unacceptable risks for the more than nine million
9 New Yorkers in the City and State who rely on the
10 City's water supply system. Until the technical
11 assessment was complete, the Administration had
12 deferred taking a stand on the advisability of
13 drilling, preferring instead to be guided by
14 science and technological expertise. Then, based
15 on that assessment, the Administration called for
16 a prohibition on any drilling in the New York City
17 west of Hudson watershed. On July 1st, the New
18 York State Department of Environmental
19 Conservation, DEC, released a summary of its
20 revised draft--

21 CHAIRPERSON GENNARO: Paul, if I
22 could just jump in for a second. So, so that
23 first, so--so that last paragraph, when you talk
24 about the submission, that was the one back in
25 2009, right?

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PAUL RUSH: Yes, sir, that was.

CHAIRPERSON GENNARO: Okay, great.

Please continue.

PAUL RUSH: --released summary of its revised draft Supplemental Generic Environmental Impact Statement, draft SGEIS, and made it available on its website a week later. However, the comment period was not triggered until an additional report completing the document, a socioeconomic impact analysis report, was incorporated into the draft SGEIS, which was released on September 7, 2011. Comments are due by close of business on December 12th. At this time, DEP and its consultants are reviewing the document and preparing comments. The City welcomed the news that high volume, hydraulic fracturing and horizontal drilling, would not be allowed within the water supply watersheds of the two large cities in the State that had filtration avoidance determinations: New York and Syracuse. This ban eliminates or reduces many of the previously identified risks to the water supply. However, some potential impacts to the water supply still exist. The most serious ones related

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2 to the water supply infrastructure. When the
3 draft SGEIS was released two years ago, several
4 risks to the water supply infrastructure were
5 identified in the technical assessment. These
6 include risks from direct penetration of a tunnel,
7 damage from micro-seismic events, differential
8 pressures on the tunnels, and contamination from
9 subsurface migration of fluid and/or gas. The
10 draft SGEIS proposes a setback of 1,000 feet from
11 aqueducts where drillers would need to conduct a
12 site specific analysis to identify whether
13 drilling poses significant adverse environmental
14 effects. If any potential effects are identified,
15 the driller would need to initiate a full
16 environmental impact study before drilling could
17 be approved. DEC has offered assurances that it
18 would not approve drilling unless the City is
19 satisfied with the study's results. But authority
20 over whether drilling would then be allowed to
21 proceed remains with the State. Another
22 significant concern is how the setback or buffer
23 distance is measured. And I have a graphic up
24 here to illustrate this point. Horizontal
25 drilling adds a new complication to traditional

1 regulatory setbacks. If the setback is measured
2 from the well pad, as specified in the draft
3 SGEIS, then horizontal drilling may occur directly
4 beneath critical infrastructure. And this is a
5 graphic of a tunnel leading from Schoharie
6 Reservoir towards Ashokan Reservoir. And the
7 lower, the lower diagram shows what is permitted
8 right now under the draft SGEIS where the well pad
9 would be located at least 1,000 feet away from the
10 tunnel. But as you can see, the drilling itself
11 could extend underneath the, underneath the
12 tunnel. Instead, we rec--we plan to recommend
13 that the setback be measured from the end of the
14 nearest horizontal drill leg to the resource in
15 question, or even to the edge of the spacing unit,
16 which is illustrated above. And this is an
17 example inside the watershed and drilling was as
18 it is, as it's proposed now, would not be
19 permitted without a specific, site specific EIS.
20 So this would apply outside the watershed, as
21 well. The reservoir dams are all at the edge of
22 the watershed, and therefore have a 4,000 feet of
23 setback protection under the draft SGEIS. But if
24 a horizontal drill leg extends 4,000 feet and the
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1 setback is measured from the well pad instead of
2 the termination of the horizontal leg,
3 hydrofracking could occur directly underneath a
4 dam. Micro-seismic events can occur either from
5 the fracturing of the rock, from the ejection of
6 fluids subsurface, or the hydrofracking fluids
7 acts as a lubricant along the surface of the fall,
8 and the reduction of the friction can result in
9 very small earthquakes at depth. The draft SGEIS
10 concludes that the magnitude of the micro-seismic
11 events, typically less than one to two on the
12 Richter Scale, is too small to be an issue. This
13 is likely true with respect to surface structures,
14 like houses, but the City's risk assessment
15 concluded that this is not necessarily the case
16 for the water supply tunnels. Repeated micro-
17 seismic events over the course of years could have
18 detrimental effect on the concrete tunnel liners.
19 DEP is in the process of obtaining an expert in
20 seismology to help assess the risk to the
21 infrastructure. Hydrofracking operations are
22 anticipated to involve pressures in the range of
23 5,000 to 10,000 PSI, the structural analysis using
24 tunnel specifications indicated the differential
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1 pressures as low as 20 pounds per square inch
2 could have a detrimental impact on the
3 unreinforced concrete liners of the Delaware
4 tunnels. These tunnels were not designed to
5 withstand this type of subsurface activity, and
6 indeed the Rondout West Branch Tunnel has already
7 demonstrated susceptibility to cracks under
8 certain conditions. The risk from elevated
9 pressure increases as more wells are drilled and
10 hydraulically fractured. Migration of fluids or
11 gas was identified a serious risk in our natural
12 gas technical assessment. The fluids may be the
13 salty formation water left from the shallow sea
14 that formed the shale, or the flow back water,
15 essentially residual fluids from the hydrofracking
16 process. This migration may be laterally from the
17 well bore, such as the well casing failure, or
18 vertically through preexisting fractures in the
19 bedrock. The probability that fluid and/or gas
20 could migrate through interconnected fractures
21 increases over time, as several hundred wells are
22 drilled and fracked every year for decades.
23 Unlike risk from surface events, such as turbid
24 runoff or chemical spills, the risk to tunnels
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1 cannot be easily monitored, and the situation is
2 analogous to groundwater contamination. By the
3 time you know there is a problem, it is already
4 too late to avoid serious impacts. Given these
5 identified risks to the City's water supply
6 infrastructure, the 1,000 foot setback proposed in
7 the draft SGEIS is inadequate to protect the water
8 supply. Based on the technical assessment, DEP
9 took the conservative position that a seven mile
10 buffer would be sufficiently protective of the
11 City's water supply infrastructure. This distance
12 was based on the length of mapped fractures and
13 the likelihood of migration of hydrofracking fluid
14 from wells, or defective drilling casings through
15 fissures in the geological substrate in the
16 region. DEP is currently hiring additional
17 geophysical expertise through our joint venture
18 consultant to more thoroughly analyze and evaluate
19 this issue. The City is discussing its concerns
20 with the State ahead of submitting formal comments
21 on the draft SGEIS during the public comment
22 period. We will continue to rely on science and
23 technical expertise to inform our position on
24 these issues of concern, to protect the integrity
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2 and safety of the water supply infrastructure and
3 the system as a whole. Thank you for the
4 opportunity to comment. I would be glad to answer
5 any questions.

6 CHAIRPERSON GENNARO: Thank you,
7 Paul. Thank you for your testimony. We have
8 questions for you, certainly. We're joined by
9 Council Member Levin from Brooklyn, always a
10 pleasure to be with Steve. And I made some notes
11 on your statement, I just want to go through some
12 of those. With regard to the case that was made
13 by DEP for the seven mile buffer, this was a case
14 that was made in the 2009 formal submission,
15 because DEP has not made any other formal
16 submission since then. And it will do a, it will
17 do another submission in response to this - - .
18 But everything that you laid out about the seven
19 miles and the need for that, and the science that
20 went into that, was presented to the State back in
21 2009. Right?

22 PAUL RUSH: That was, that was in
23 the final impact assessment that was presented to
24 the State as part of our comm--our comments.

25 CHAIRPERSON GENNARO: Right, so I

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2 saw. I just want to be clear that the State has
3 had this information--well, that information was
4 given to the State, I guess in December 2009, so
5 it's a little less than two years, a couple of
6 months shy of two years that they had this
7 information. And still came out with the document
8 that they did. And based on your testimony, you
9 indicate that DEP is hiring more geophysical folks
10 to do your next formal submission to the State.
11 Why don't you tell us about that and there's
12 apparently, you know, need to bring in more folks
13 and do this because the State apparently didn't
14 believe DEP the first time. [laughter] And if
15 they did, it would've been reflected in the
16 document, presumably. And so, I'm, you know, kind
17 of sorry that the City has to do that, it is, you
18 know, very necessary to do, and I'm glad that
19 you're doing it. And what are going to be the
20 types of things that these folks will look at, and
21 put forward in the hopes that the State will
22 listen?

23 PAUL RUSH: The, the State, I'm
24 sure they received comments, a number of comments
25 on the draft that was submitted. And what the

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2 document they produced, they indicate a protection
3 distance much, much less protective than what we
4 propose in our comment.

5 CHAIRPERSON GENNARO: But, but yet
6 it was really the same as the first draft, was it
7 not? So, so the protection for the critical water
8 supply infrastructure in the July 1st to September
9 whatever document, that was just kind of released
10 in different sections, has the same protections
11 for that infrastructure, that the first document
12 had back in 2009 or whatever it was, right?

13 PAUL RUSH: Yes.

14 CHAIRPERSON GENNARO: Yes. So, and
15 it's my understand in conversations with
16 geologists that I know, because I am a geologist
17 by training, I never, you know, haven't been
18 working in the field for 30 years like some of the
19 folks I'm talking with, but it's my belief that
20 the seven mile buffer kind of came from the
21 geologic reality that some of the faults,
22 fractures and fissures can certainly go on for
23 miles, and about 90 percent of those fractures and
24 fissures would be about seven miles or less, about
25 ten percent would be seven miles or more. Plus we

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2 have the wild card of, you know, all this micro-
3 seismic kind of activity that can, you know,
4 certainly play a part on these fissures and
5 fractures that, that's not a static situation
6 based on all the nonsense that's kind of been
7 going on under the ground. And if you'd like to
8 further embellish, you know, where that seven mile
9 number comes from, and how the folks you're going
10 to bring on are going to help to, you know, drive
11 that reality home, feel free to do that.

12 PAUL RUSH: So, the--you're correct
13 in where the seven mile number came from. 90
14 percent of the mapped subsurface features, the
15 fault or fractures, were set--that intersect any
16 of our tunnels, under the water supply tunnels,
17 were seven miles or less. That's where that
18 position came from. And we submitted that, as you
19 had mentioned, nearly two years ago to DEC. They
20 had an opportunity to consider what we submitted,
21 and they, I'm sure they considered other comments.
22 And they did not change their position with
23 regards to infrastructure, despite the submission
24 of this document. So what's important to us is,
25 number one, we sharpen our pencil and make sure we

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2 present the most persuasive and correct technical
3 argument regarding our concerns and understanding
4 those completely. So the geophysical expertise
5 that we're going to be hiring through our joint
6 venture will assist us in, number one, taking a
7 look at this issue again, making sure that we're
8 looking at this correct, technically and
9 scientifically, 'cause we want to make or base,
10 their decisions based on that. And also look
11 further on this issue, the micro-seismic issue,
12 which we have concerns on, because this activity
13 has proceeded as, you know, in other locations--
14 Texas, Louisiana--

15 CHAIRPERSON GENNARO: Right.

16 PAUL RUSH: --where it's gone on,
17 but it has not gone on in a place where there are
18 large water supply transmission tunnels that go
19 through deep rock. I mean, this would be, this
20 would be the first time this activity would occur
21 near, near those features, and those features are
22 different than surface, surface features. And we
23 have concerns, and we want to be very protective
24 of the water supply infrastructure, and we want to
25 make sure the state recognizes those concerns, and

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2 is properly protective of the infrastructure
3 that's needed to bring water to nine million
4 people in the State.

5 CHAIRPERSON GENNARO: Right. Thank
6 you. Let me just jump from a scientific concern
7 to a legal concern. In your statement you point
8 out that, that with regard to the thousand feet,
9 anything within a thousand feet, DEP would be
10 consulted. And the State kind of indicated that
11 they would be faithful to what DEP's thoughts
12 would be on that, or concerns, rather. But at the
13 end of the day, the State would have the final
14 determination. And so, I'm more of a science guy
15 than like a legal process guy, but just let me,
16 just like walk me through like what that means.

17 PAUL RUSH: So, we don't have any
18 regulatory authority, at least outside the
19 watershed, when it comes to natural gas drilling,
20 natural gas drilling. That authority rests with
21 the State. So in the process they set up, inside
22 this 1,000 foot zone, it's not even a complete
23 band, it just triggers another level of a site
24 specific EIS, where the state has assured us they
25 would take our comments and concerns seriously.

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2 But as you can see on the graphic, I mean, the way
3 it's permitted, we can have drilling going on
4 right underneath the tunnel, across the tunnel,
5 right--it's just where the well pad itself is
6 located. And you know, recognition of our
7 concerns surrounding this, you know, this is, this
8 is a very important issue to us, 'cause there's
9 not even a complete ban on even drilling right on
10 top of the tunnel.

11 CHAIRPERSON GENNARO: Right, so the
12 ban is really--or, or the buffer is just the
13 trigger for another process.

14 PAUL RUSH: That's exactly right.

15 CHAIRPERSON GENNARO: And the City
16 gets to have a voice in that process. And if
17 there was a well pad that was going to be sited,
18 not 1,000 feet but 1,500 feet, that would be 500
19 feet--pardon me--500 feet beyond the buffer, then
20 the City would not be notified, there would be,
21 there'd be no ability to, for the City to invoke
22 a, any kind of process or whatever, and the person
23 that was filing that application would not have to
24 do a site specific analysis. But were DEP to find
25 out about such an application, it could make its

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2 views known, but even if the State agreed with
3 you, that wouldn't be, like a lot of legal basis
4 for the State to deny the permit, as long as that
5 entity was doing what it needed to do with regard
6 to the rules and regulations for drilling. Is
7 that a fair way to say it?

8 PAUL RUSH: I think it is, and I'll
9 preface my statement by I'm not a lawyer either,
10 I'm an engineer, so I have to be very careful when
11 I'm also talking on legal issues.

12 CHAIRPERSON GENNARO: Yeah.

13 PAUL RUSH: But I think you're,
14 essentially you're correct. I mean, we certainly
15 would monitor the applications that came in and
16 make our views known, but there's no requirements,
17 if it's even, if it's outside this 1,000 foot
18 buffer zone that's proposed.

19 CHAIRPERSON GENNARO: Hm. So,
20 yeah, so this gets more into legal questions. But
21 I was not before this hearing really aware, and I
22 thought that the 1,000 foot buffer was a real
23 buffer, and we were, and if we were able to, you
24 know, set that at the proper distance of seven
25 miles, there would be real protection. But what

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there really is, is the hope of protection through this process.

PAUL RUSH: That--for that 1,000--

CHAIRPERSON GENNARO: Right.

PAUL RUSH: --foot buffer--

CHAIRPERSON GENNARO: Well, but--

PAUL RUSH: --which we're not, we're not very, we're not comfortable with that at all.

CHAIRPERSON GENNARO: Well--Yes, but, even if the 1,000 feet became seven miles, then it's the same situation. Somebody wants to drill, you know, within that seven miles, that entity would have an opportunity to do a site specific EIS. Which would be a big endeavor, right? It would, it would--that would be a sizable endeavor to do. This is not like they're, you know, checking off boxes on a, on a form, this is all process. Did Dr. Kane wish to weigh in on that point? Yeah, feel free to do so, just please state your name for the record.

KIMBERLEE KANE: Hi, my name is Dr. Kimberlee Kane. I work for New York City DEP. The site specific analysis would only pertain to

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2 issues not covered in the supplemental GEIS. So,
3 within this zone, presumably that would just be
4 the vicinity of the infrastructure. [background
5 comment] Sorry. So they would only, it wouldn't
6 be a full blown EIS.

7 CHAIRPERSON GENNARO: I see.

8 KIMBERLEE KANE: It would only
9 address whatever issue they have to deal with that
10 wasn't already covered.

11 CHAIRPERSON GENNARO: Right, okay.

12 KIMBERLEE KANE: So, primarily this
13 is to make sure they're not drilling through the
14 tunnel [laughter, background comments]

15 CHAIRPERSON GENNARO: Right.

16 KIMBERLEE KANE: But can drill
17 within, anywhere within that area, as long as DEP
18 says it is not likely to go actually through our
19 infrastructure.

20 CHAIRPERSON GENNARO: I see. Okay.

21 [pause] I am going to formulate some additional
22 questions and look at some of the questions that I
23 have here. In the meantime, I'm going to
24 recognize Council Member Crowley, who has one more
25 question. So, I recognize Council Member Crowley.

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2 COUNCIL MEMBER CROWLEY: Can you
3 tell me--thank you, Chair--can you tell me the
4 extent of property that the City actually owns in
5 and around our waterway? And if there's drilling
6 that could potentially happen on that property?

7 PAUL RUSH: Well, in the watershed,
8 in the watershed itself, the City owns roughly
9 150,000 acres, in the watershed. But outside the
10 watershed, where this critical infrastructure's
11 located, the City owns usually small parcels of
12 the land around shaft sites, which are usually
13 three, three to as much as 15 acres around little,
14 around shaft sites. So across on one tunnel
15 total, 45 mile long tunnel, from Cannonsville
16 Reservoir to Rondout Reservoir, we may own a total
17 of 100 acres. The length of that entire tunnel,
18 we have a subsurface easement that permits us to
19 construct and maintain a tunnel, but that's the
20 only protection we have. So the vast majority of
21 the land outside, outside the watershed where
22 tunnels run, are owned, and is owned, by private
23 entities, private individuals.

24 COUNCIL MEMBER CROWLEY: So, the
25 protection that you've sought from the State is

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getting 1,000 feet protection in and around, or
no?

PAUL RUSH: The protection we
sought from the State in terms of infrastructure
was to get protection in a no drill zone, seven
miles away from our infrastructure.

COUNCIL MEMBER CROWLEY: And where
are things right now with the State?

PAUL RUSH: Right now with the
State, we, what they propose, is 1,000 foot on
each side of the, each side of the infrastructure,
where there would be a requirement for a
heightened environmental review.

COUNCIL MEMBER CROWLEY: And you
want seven miles.

PAUL RUSH: Our position is that,
what we stated in the impact statement from 2009,
is we requested a drilling ban within seven miles
of the infrastructure.

COUNCIL MEMBER CROWLEY: And do you
know if drilling is currently happening within
that seven miles right now?

PAUL RUSH: There is no drilling
for gas exploration, there have been no

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2 applications that have occurred. I mean, there is
3 drilling that goes on, water well much shallower,
4 that is not as problematic, but not for, not for
5 gas exploration.

6 COUNCIL MEMBER CROWLEY: So, is
7 that drilling that's currently happening posing a
8 threat to our watershed?

9 PAUL RUSH: The drilling in the
10 sub--the drilling for water supply wells at the
11 surface, does not pose a threat to our, to the
12 water supply of the City.

13 COUNCIL MEMBER CROWLEY: Is there a
14 indication that within the seven miles area in and
15 around the watershed that there is property that
16 is bought by drilling companies, and that they
17 have plans and that they are trying to pursue an
18 agenda to drill.

19 PAUL RUSH: We are aware that they
20 have acquired leases within this seven mile area,
21 and I believe there's a map of leased properties
22 that was produced on, in the briefing document by
23 Chairman Gennaro's staff, which shows that.

24 COUNCIL MEMBER CROWLEY: All right.
25 I have no further questions.

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CHAIRPERSON GENNARO: Thank you.
Thank you, Council Member Crowley. I recognize
Council Member Steve Levin for questions.

COUNCIL MEMBER LEVIN: Thank you,
Chairman Gennaro. I really appreciate the
testimony and I, I do certainly also appreciate
the position that you're presenting today. I'm
just a little bit confused or--not confused but I
notice a little bit of a disparity between the
reaction in July from the Administration, which
was generally very praising of, of the State's
recommendations, and that the Mayor was quoted as
saying, "They appear to adopt--these new
recommendations appear to adopt the restrictions
that we sought." But based on the testimony
today, you know, there's a gap of, you know, six-
and-three-quarter miles between the
recommendations that we are seeking, or the rules
that we're seeking here in the City and
recommendations put forth by the State. I'm just
wondering, what happens if they don't adopt our
position? What happens if they keep it at seven
miles? What is the position--what is the position
of New York City going to be in that instance?

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And how are we going to react?

CHAIRPERSON GENNARO: Paul, if I could, I just want to kind of add something to what Council Member Levin has said. With regard to the reactions of people when this first came down on July 1st, but it was really more like June 30th, like the cat got out of the bag and they put out a press release. And I just want to say that, for myself, many folks, like me, and perhaps others, and this may also include the Mayor, when we heard in this, you know, four page press release, that the New York City drinking water supply watershed, was going to have a fracking ban, and same for Syracuse, there really wasn't, you know, much in the way of fine print about, you know, things like other critical parts of the water system, like the tunnels and aqueducts. And I actually, you know, tempered my statement of praise for the Cuomo Administration to say, yeah, I didn't see the press release, it says there's not going to be fracking in the watershed, I want to see the fine print with regard to the critical water supply tunnels and all that. But I'm hoping that once I see, you know, see the fine print I'll

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2 see that they're protected, also. So there were
3 folks, myself and others, that, you know, put out
4 statements, because it was kind of a broad thing
5 about like we're going to protect, you know,
6 everything that has to do with like the New York
7 City drinking water supply watershed, and that
8 just like didn't pan out. So, there's a statement
9 from me out there, you know, thanking the Governor
10 for, you know, taking the watershed off the table.
11 But I put some of my own fine print, about like I
12 got to, you know, see about the tunnels and stuff.
13 And so, I kind of got that in there 'cause I
14 didn't know it was going to happen. So, anyway,
15 maybe that sheds some light on the statements that
16 people made when they saw the, you know, June 30th
17 press release. But we're a lot further down the
18 road than June 30th. So, sorry for the
19 interruption and I'll turn it back over to Paul to
20 respond to the rest of the Councilman's question.

21 PAUL RUSH: So, the first point, as
22 Chairman Gennaro mentioned, the fact, the
23 announcement about DEC in terms of the protection
24 of the unfiltered watershed, was a big achievement
25 and we were very happy that that was, that was

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2 recognized. So that is something, that is a good
3 thing that's come out of DEC. Regarding the
4 protection of the infrastructure, we were, I mean,
5 we were disappointed in the protection surrounding
6 the infrastructure. It did not reflect the
7 comments that we submitted. And what, what's
8 going to happen if they don't act on our comments,
9 and when we go back? I mean, that's, that's a
10 good question. The water supply is not going to
11 collapse and become contaminated immediately. It
12 is, it does put the water supply at some risk,
13 based on the information that we have right now,
14 and based on our technical assessment. But we are
15 hiring specific geological expertise to really
16 look into this issue even deeper, to have the best
17 technical information in terms of understanding
18 this issue even better. And be able to
19 articulate, you know, why this, you know, why the
20 distance is important, and also understanding, you
21 know, is the, is this the appropriate distance.
22 And we'll be guided by technical expertise that we
23 hire, our own ex--you know, our own consultants.
24 I mean, we don't have, we don't have the petroleum
25 geologists on staff, but we are hiring geologists

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2 who know this well. And based on that, you know,
3 we will, you know, we'll evaluate and our comments
4 will reflect that analysis.

5 COUNCIL MEMBER LEVIN: Right, and I
6 certainly didn't mean that as a gotcha question, I
7 actually, I wanted to kind of flesh out a little
8 bit the position as it's evolved. And I certainly
9 would hope that they, that they're appreciative of
10 these comments, and that--I mean, I would hope
11 that they would understand that, or recognize that
12 the cooperation and, of the City of New York is a
13 really important piece in all of this. Is there--
14 is there a consensus among the geological
15 community? I mean is there a, is there a range--
16 are they, are they kind of using certain experts
17 to say that 1,000 feet is appropriate and--or is
18 there more of a consensus that says that it's--I
19 mean, clearly, that means--

20 KIMBERLEE KANE: Yeah, well--

21 COUNCIL MEMBER LEVIN: --just
22 because the difference is so significant. I'm
23 curious where the, where the consensus lies.

24 PAUL RUSH: There is no consensus.
25 There's a divergence in opinions on the risks that

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2 we presented in our technical expertise compared
3 to presentations and information produced by
4 others in the energy development field.

5 COUNCIL MEMBER LEVIN: Mm-hmm.

6 PAUL RUSH: They're looking at
7 this, you know, there's two different, there are
8 different opinions on this, and you know, we're
9 going to be guided again by expertise and folks
10 who are working to protect our interests, and you
11 know, the fact that we have an unfiltered water
12 supply system, you know, hundreds, you know, more
13 than a hundred years since it was constructed, is
14 because we've been very protective in terms of our
15 watershed going forward. And we had the foresight
16 back before the turn of, you know, two centuries
17 ago, now, in terms of protecting the system. And
18 it's a incumbent upon us, you know, going forward,
19 as stewards of that system, to be guided in that
20 same, you know, in that same principal and being
21 protective. And also being guided by the best
22 technical information and being protective of this
23 resource that we're blessed with.

24 COUNCIL MEMBER LEVIN: Is there
25 any, is there a precedent out there for our type,

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2 you know, a water supply system that is akin to
3 ours? Or that bears resemblance, in which there's
4 hydraulic fracturing within--I mean, has this
5 been, has this happened anywhere else where
6 there's, there's this type of relationship that's
7 being explored?

8 PAUL RUSH: I mean, the difference
9 here with New York City is we have an un--we have
10 unfiltered supply.

11 COUNCIL MEMBER LEVIN: Right.

12 PAUL RUSH: And this activity has
13 not occurred any, in any unfiltered supply.
14 Places where they have filtered water, you know,
15 hydraulic fracturing has occurred directly beneath
16 reservoirs. I know that is the case in Arlington,
17 Texas. I've had conversations, and they have
18 concerns regarding hydraulic fracturing in Texas.
19 But here in New York City, being an unfiltered
20 supply, it poses a special risk.

21 COUNCIL MEMBER LEVIN: I just, one
22 further question, Mr. Chairman.

23 CHAIRPERSON GENNARO: Sure.

24 COUNCIL MEMBER LEVIN: With, if in
25 fact either the drinking water were to be

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2 contaminated or the infrastructure were to be
3 damaged, if this were to go forward in either
4 fashion, right? Whether it's 1,000 feet or seven
5 miles or anywhere in between. Who would be, who
6 would bear the liability for that damage? How, I
7 mean, has that been an issue that's been explored
8 with DEC? With the industry? Certainly I
9 wouldn't want us to be on the hook for it here in
10 the City. What's that conversation sounding like
11 these days?

12 PAUL RUSH: I mean, we have, we
13 haven't had that, that conversation, or, you know,
14 we would not want our infrastructure to be
15 damaged, but if we believe somehow--

16 CHAIRPERSON GENNARO: Let me just
17 also add if I could add, I just want to jump in
18 here for a second. And I very much appreciate the
19 question. I think it's, I think it's very put to
20 the point, but it also that, that the question,
21 you know, rests on a premise that something that
22 were to happen, you know, would be able to be
23 fixed by like the, you know, by someone taking out
24 their wallet and, you know what I mean?

25 PAUL RUSH: Right, right.

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2 CHAIRPERSON GENNARO: **And that just**
3 **may not be the case.**

4 PAUL RUSH: Might not be
5 quantifiable in that way.

6 CHAIRPERSON GENNARO: And this may
7 be like way beyond like a wallet problem and like
8 who ponies up the money.

9 PAUL RUSH: Right.

10 CHAIRPERSON GENNARO: This may be
11 like we can't get there for here, and how do we
12 dig another tunnel and how do we--just, it may not
13 be so easy as, you know, someone figuring out like
14 which entity was going to pay for it. Is that
15 fair to say?

16 PAUL RUSH: That's fair to say,
17 Chairman.

18 CHAIRPERSON GENNARO: Mm-hmm.

19 COUNCIL MEMBER LEVIN: I don't have
20 any further questions at this time.

21 CHAIRPERSON GENNARO: Okay.

22 COUNCIL MEMBER LEVIN: Thank you
23 very much, thank you, Mr. Chairman.

24 CHAIRPERSON GENNARO: Thank you,
25 Council Member Levin. I recognize Council Member

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Lander for questions.

COUNCIL MEMBER LANDER: Thank you, Mr. Chairman, thank you as always for your leadership on this exceedingly important issue. Thank you, Deputy Commissioner for being here. I want to especially thank you because I think your testimony really illustrates, this is sort of shaping up as a somewhat kind of polarized debate, there are many people in the room, as you know, who don't think that there should be hydraulic fracturing anywhere in New York State, and I think there's good evidence and good reason to believe that. And then, you know, I think the way it's shaping up, there's this, "Well, okay, but the Governor says we'll protect the watershed." We won't speak to the rest of the State but we'll protect the watershed. And I think you guys have done a great service by clarifying what protecting the watershed means, and that what has been proposed doesn't protect the watershed. And having you guys say it is of course of enormous value partly because of that, you know, 100 plus year stewardship of the water system, but also because no one could accuse the Bloomberg

1 Administration of, you know, excessive approach to
2 regulation and hostility to business, you know,
3 interests, and so it--I really hope they're
4 listening in Albany, because to have you guys say
5 it this clearly after research is very meaningful
6 and very important. So, I appreciate that it
7 doesn't come lightly, and I want to say thank you.
8 I want to ask a question about, that kind of gets
9 to this question of like what do we do if they
10 don't listen to us? I hope they will, you know, I
11 really hope they will, this is serious testimony,
12 you guys have produced a lot of evidence and, and
13 I am hopeful and guardedly optimistic that we will
14 make real progress in Albany before any final
15 decisions are reached. But I was thinking a
16 little, along with my policy director, what could
17 the City do? Obviously, we have somewhat limited
18 jurisdiction here. But one area where we might
19 have some ability to restrict hydraulic fracturing
20 is in the treatment of the waste water. I know
21 that DEP handles quite a lot of the waste water in
22 and around the watershed, far outside of New York
23 City. And if anyone were to do hydraulic
24 fracturing, they would have to have their waste
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2 water cleaned by someone. Have you guys thought
3 about whether it would be possible for us to say,
4 for example, "We don't do it." And therefore
5 affect the economics of, or maybe even the
6 practicality, of doing the drilling, by refusing
7 to treat the waste water from it?

8 PAUL RUSH: So, with regards to
9 waste water, early on when this issue was
10 emerging, we were contacted by energy companies,
11 whether we would accept waste water from hydraulic
12 fracturing operations. And at this point, in the
13 document, there is not a ban, and I'll ask Dr.
14 Kane to correct me if I'm wrong, there's not a ban
15 on the treatment of waste water in the watershed
16 from hydraulic fracturing operations. And that's
17 certainly something we're going to comment on as
18 well, that there be a ban on that, specifically
19 for our watershed, where there, you know, there
20 are a number of waste water treatment plants. We
21 operate seven waste water treatment plants that
22 the City owns, but we also pay for O&M on many
23 more. You know, nearly 90 waste water treatment
24 plants that we pay O&M on, you know, that protect
25 the supply. So, the regulatory authority to ban

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it really needs to come from DEC as part of this process.

COUNCIL MEMBER LANDER: We couldn't, I mean, either for the ones we directly operate, the City directly operates, or the ones that it funds, say it's our policy that we won't take it?

PAUL RUSH: The ones that we own, we can certainly say, and we, you know, we have said, we would not accept frack fluid into those, or backwater for backwash water, produced water into those, into those facilities. But the ones that we don't own--

COUNCIL MEMBER LANDER: Right, so that's--

PAUL RUSH: --we don't have that same, we don't have that same authority, but we certainly would support that.

COUNCIL MEMBER LANDER: Are paying the operations and maintenance isn't by contract--

PAUL RUSH: It is--

COUNCIL MEMBER LANDER: --so we couldn't stipulate in the contract that we won't take it.

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2 PAUL RUSH: It is by contract, they
3 have sewer use ordinances, and they'd certainly
4 need to be able to demonstrate they have the
5 capacity to do this treatment, which I don't, I
6 think is a very, very heavy lift, given the
7 information we're hearing on what's coming back in
8 this water. I don't see it happening, but it
9 would be reassuring to have DEC actually put that
10 in as part of their decision making process on
11 SGEIS, and--

12 COUNCIL MEMBER LANDER: And I
13 agree, this would all be much better done by them,
14 so I don't mean to say the City should, you know,
15 the best would be if they adjust in a significant
16 way. So, but, I wonder if they, again, as a sort
17 of either a threat or a, you know, a next step if
18 they don't, I mean, it would, would it be po--we
19 should look at whether it'd be possible to even
20 renegotiate the O&M contracts and not pay for the,
21 not pay for other private or municipal waste water
22 treatment where they're jeopardize--you know,
23 where they're helping people jeopardize our water
24 supply. Do you know what percent, I'm just
25 curious, what percent, and I guess it depends what

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2 geography you look at, but what percent in the
3 watershed of waste water treatment and processing
4 is the seven plants that DEC directly operates,
5 versus the other municipal or private ones?

6 PAUL RUSH: The ones that DEP
7 directly operates, and this is taking a quick
8 stab, it's probably about--

9 COUNCIL MEMBER LANDER: Of course.

10 PAUL RUSH: --15, 15 percent of the
11 total volume.

12 COUNCIL MEMBER LANDER: Oh, so it's
13 relatively small. So by itself it wouldn't really
14 affect the economics of operators if we couldn't
15 also get to the others. All right, well let's,
16 I'm going to ask counsel if we can keep looking at
17 this with you and try to figure out whether there
18 wouldn't be some way, where if we're providing
19 money, that we could say we won't provide money
20 for operations, that process the frack fluid.

21 PAUL RUSH: And we'll take, we'll
22 take that question back, and we'll consider that
23 include, we do have regulatory authority in the
24 watershed, we'll look into our watershed rules and
25 regulations, surrounding that issue, and if there

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are options open under those.

COUNCIL MEMBER LANDER: Thank you.

And thanks again for the seriousness with which you're taking us.

PAUL RUSH: Thank you.

CHAIRPERSON GENNARO: Thank you, Brad, appreciate that very much. I'd like to go a little further and just ask another question based on what the, Council Member Lander was talking about, with regard to the sewage treatment plants within the confines of the City's watershed. Like you said, we actually run some of those, we have some kind of involvement, but they're ultimately all regulated by the State Health Department would that be the entity that ultimately regulates them? How does that work?

PAUL RUSH: It's DEC. DEC regulates the waste water treatment.

CHAIRPERSON GENNARO: Oh, I see. And what you were hoping for, in terms of an action by DEP, would just be to say that none of the sewage treatment plants within the confines of the watershed, should process any kind of produced water. Would that be--

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PAUL RUSH: That's correct.

CHAIRPERSON GENNARO: Right. And this is something, presumably, that was asked for in the 2009 submission? Was that part of the 2009 submission?

PAUL RUSH: It was not, I don't think we actually asked for that in the 2009 submission, but that was one of the things on review that we, we've identified as an issue that should be addressed.

CHAIRPERSON GENNARO: And ... DEC consistent with its, with the same authority it used to ban fracking within the confines of the watershed, could use that same authority to ban the fracking fluids being treated by waste water treatment plants in the watershed, as part of their goal of trying to protect the watershed? They could use that same authority? I'm playing process person, legal person, here, which I'm really not, but--

PAUL RUSH: Well, I mean, I'm not a legal person--

CHAIRPERSON GENNARO: Yeah.

PAUL RUSH: --so I'm starting to

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get out on edge--

CHAIRPERSON GENNARO: Yeah.

PAUL RUSH: --where my engineering
and legal expertise--

CHAIRPERSON GENNARO: Yeah.

PAUL RUSH: --is starting. I
believe so, they certainly do have--

CHAIRPERSON GENNARO: Right.

PAUL RUSH: --authority to regulate
waste water treatment and those activities. They
do have that regulatory authority, where it
specifically lies in the regulation, is another
question.

CHAIRPERSON GENNARO: Right, but
also the justification for any such rule or
regulation they would put forward would be the
good science on this that you're going to create
with your submission. I don't mean that like, you
know, to be funny, I mean, that this is, this is,
that could--

PAUL RUSH: It's, it's in our
submission, it's also on science that's been done
in other locations already.

CHAIRPERSON GENNARO: Right. And

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2 DEC, although it has said for the 1,000 foot
3 buffer which we were just talking about, which we
4 would very much like to see go to seven miles,
5 they could probably use that same authority to
6 create an actual band within that, you know, 14
7 mile wide pathway or corridor. And so they could
8 do the same thing. They're just choosing to use
9 this other method, whereby the City will have,
10 like will be a stakeholder or like a voice in a
11 process. And so I just, I kind of want to
12 establish that.

13 PAUL RUSH: That, that is correct,
14 I believe, again putting that little asterisk
15 there.

16 CHAIRPERSON GENNARO: Right, yeah,
17 yeah, okay, yeah, yeah, yeah. And I just want to
18 state, I won't, you know, read their whole
19 testimony, but we're talking, we've been talking a
20 lot about geology and we did get the testimony of
21 someone from the USGS. He's testified at this
22 hearing before. John Williams, he's a groundwater
23 specialist with the US Geological Survey. He gave
24 us a couple of pages of testimony. And all of the
25 orange marks where he has like problems with the

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2 State's new document and he does make kind of a
3 big deal, I won't read the whole thing, about what
4 you were talking about, Paul, with regard to the,
5 what the effects of micro-seismic events. So, you
6 do have some company with the USGS. And what we
7 should do, this is a note to staff, why don't we
8 make copies of this USGS testimony and make it
9 available to people who come to the hearing today.
10 We make the, we make all the hearing available, we
11 make all of these documents available. So, we
12 should do that and let people have the benefit of
13 the, you know, USGS's view on this, 'cause it's a
14 good read. Let me see if there's any further
15 questions that I have on the DEP statement, and
16 testimony. [pause] I think we are good. And I'm
17 very, very grateful to DEP for not only, you know,
18 being there in 2009--Oh, okay. [background
19 comment] Last question with Council Member Levin,
20 and then I'll wrap up, just for the thank you.

21 COUNCIL MEMBER LEVIN: Sorry to
22 interrupt you.

23 CHAIRPERSON GENNARO: No, it's
24 quite all right.

25 COUNCIL MEMBER LEVIN: Just a

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2 follow up question about the treatment, the waste
3 water treatment. Do we, I mean, is it, from what
4 I kind of gathered, from what your response was
5 before, Deputy Commissioner, that--do we have a
6 sense of, that we can handle, that we have the
7 technology to adequately treat that type of waste
8 water. Or, I mean, we don't really know what's in
9 there, right? I mean--

10 PAUL RUSH: I mean, absolutely not,
11 that's a huge issue with the, with this frack
12 fluid, the produced water. You know, there was an
13 issue out in Pennsylvania, in the Pittsburgh area,
14 Allegheny County Water Authority had issues with
15 bromates and chlorides that affected their
16 drinking water quality. You know, they actually
17 had exceedents of MCL that they tied back to waste
18 water treatment plants discharging into the
19 Allegheny River, or maybe it was Monongahela, I
20 forget, further upstream that caused these
21 problems, 'cause the plants weren't designed to
22 treat these brine. The idea was, "Well, we add it
23 into the waste stream," they were making money off
24 the process, they got paid for it. But they
25 really, the process, it was essentially diluting

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2 the salts, but it wasn't really providing any
3 removal or treatments.

4 COUNCIL MEMBER LEVIN: Right,
5 'cause I mean I live right next to New Town Creek,
6 and I've taken a tour of the facility, and I know
7 what that's designed to clean. And it doesn't
8 seem like it's designed to clean this type of
9 stuff. And you know, we don't want that going
10 around in our ambient water, I'm assuming. Right.

11 PAUL RUSH: And you're correct,
12 it's not designed to treat this stuff.

13 COUNCIL MEMBER LEVIN: Okay. Thank
14 you very much, Deputy Commissioner. Thank you,
15 Mr. Chair.

16 CHAIRPERSON GENNARO: Thank you.
17 Thank you, Steve. And I thank DEP for being here,
18 thank you for, you know, doing what you did in
19 2009, putting forward that great body of science,
20 and looking forward to what you're going to do
21 with your new submission and all of the talent
22 that you're going to bring on board to make sure
23 that it, you know, paints the picture that needs
24 to be painted. We here at the counsel stand ready
25 to be your partner and to, you know, try to help

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2 you make the case that needs to be made. So, very
3 grateful for having you here, and it's, give my
4 best to Carter and everyone at DEP. And thanks
5 very much, appreciate it.

6 PAUL RUSH: Well, thank you, Mr.
7 Chairman.

8 CHAIRPERSON GENNARO: Sure thing.
9 [pause] This is, hang on. [pause] Yeah, okay.
10 [pause] Okay, I'm going to call the next panel.
11 Next panel was going to be six people, I don't
12 think we can do six people up there, so I'm going
13 to be like Solomon and split the panel. And so,
14 so the first three sheets on the top of the panel:
15 Eric Goldstein from NRDC; Craig Michaels who is
16 the witness that'll serve as an expert for
17 questions, I believe, for NRDC; and Al Appleton.
18 And so we'd like to hear from these three folks.
19 And the next panel will be from Riverkeeper has a
20 representative, Mackenzie Schunmacher [phonetic];
21 Dusty Horwitt of the Environmental Working Group,
22 came up from Washington, thank you for that; and
23 Cathleen Breen, from NYPIRG, came all the way from
24 Murray Street. And so, and, and so if we could
25 have those three individuals come forward. Mr.

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2 Appleton, Mr. Goldstein, Mr. Michaels. [pause]
3 Okay. Let me take this opportunity before this
4 panel is sworn in for a note of thanks to the, to
5 the Sergeant-at-Arms, who have put the folks in
6 the next room. And so, everyone is here on the
7 16th floor. The people next door have audio of
8 these proceedings, we're very grateful to the
9 Sergeants for jumping through hoops and to try to
10 get everybody accommodated. We're very grateful
11 for that. Soon, we won't have to do this, because
12 we'll have City Hall back and we can all spread
13 out. But for now, the Sergeants for the last year
14 or two have been making due with--we just don't
15 have the proper room to do what we need to do, but
16 they've done their best to make it happen for us,
17 and we're grateful to that. And I want to put
18 that on the record and thank them. And I want to
19 thank this panel for being here, as well, and if
20 the Counsel can swear in the panel, then they can
21 proceed with their good testimony.

22 COUNSEL: Gentlemen, please raise
23 your right hands. Do you swear or affirm to tell
24 the truth, the whole truth and nothing but the
25 truth?

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PANEL: I do.

CHAIRPERSON GENNARO: Okay, then I guess in the order that we called the panel, or however people want to proceed. [background voice] Okay, Eric--

ERIC GOLDSTEIN: Thank, thank you--

CHAIRPERSON GENNARO: --looks like Eric's going first.

ERIC GOLDSTEIN: Thank you, Chairman Gennaro, and Members of the Committee. My name is Eric Goldstein. With me is Craig Michaels, a consultant to NRDC. I'd like to thank you and the Committee for holding this important hearing and for your continuing leadership, 20 years in the making, on water quality protection issues. Our preliminary review of the draft Environmental Impact Statement prepared by the State suggests that while it's certainly stronger than the flawed document, fatally flawed document released by the Patterson Administration in 2009, it still leaves many significant unresolved issues and important unanswered questions. There are gaps in areas like handling the hazardous waste, the fracking fluids and the other materials from

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2 drilling, gaps in protection of flood plains, an
3 issue that has become increasingly important in
4 view of the intense and more frequent rainstorms
5 we've been having, gaps in preservation of state's
6 landscapes and rural communities. But today,
7 we're going to fo--we're outlining all of those
8 issues in great detail in our comments that we'll
9 be submitting to the State. Today we're going to
10 focus on two issues of utmost importance to this
11 Committee. The first is a procedural issue, but
12 an important one. We're especially troubled about
13 the State's plan to fast track its review process
14 for fracking's environmental impact study, and for
15 the as yet unreleased proposed rules that would
16 govern the program. In the State's press release
17 of September 7th, the Department indicated it
18 would likely be issuing proposed fracking rules in
19 October and requiring final comments on those
20 rules on December 12th, the same day as the
21 comments that are due on the EIS. That poses some
22 very significant problems. First, it undercuts
23 the whole purpose of environmental impact
24 statements, which is to solicit information that
25 could guide government officials in future

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2 decision making. How can the State benefit from
3 public comments on the draft EIS if it's releasing
4 its proposed rulemaking for the gas drilling
5 program even before the comment period is
6 complete? Equally troubling is that the State's
7 proposed schedule would leave insufficient time
8 for members of the public to both review all of
9 the substantive comments on the EIS and also
10 prepare detailed comments on the proposed
11 rulemaking. The whole schedule makes it seem as
12 if the Department is just going through the
13 motions and has already made up its mind on a
14 final regulatory proposal. Now we still hold out
15 the hope that this is not the case, and that DEC
16 will revise its timetable to release the draft
17 rules after the comment period on the EIS has
18 concluded, and we urge you to work with your
19 Council colleagues to communicate that very
20 important procedural concern to the State. I
21 mean, we're talking about a three month comment
22 period that could begin after the EIS comment
23 period ends. What is three months when you're
24 looking about a regulatory program and a gas
25 drilling program that theoretically would stretch

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2 out for three or four or five decades? A second
3 major problem with the draft EIS is its failure to
4 place critical water supply infrastructure off
5 limits to drilling. And you've heard about that
6 from Deputy Commissioner Rush. We congratulate
7 Deputy Commissioner Rush and Commissioner
8 Strickland, their position on this issue has been
9 a strong and solid one, since the very beginning,
10 when this threat first emerged, and it's a very
11 welcome and refreshing sign. And the expertise
12 they're developing is critical. But something is
13 wrong here if we're putting at risk a million
14 dollar, multimillion dollar, multibillion dollar
15 tunnel and aqueduct system and exposing that to
16 the very real threat from drilling operations. As
17 you've heard, the EIS proposes 1,000 foot buffer.
18 That's not really a buffer. The detailed analysis
19 suggested that seven miles was necessary to
20 protect the infrastructure. And if you look at
21 the map that we submitted on the final page of our
22 testimony, you'll get some sense of what is at
23 stake in this particular piece of the debate. The
24 West Delaware Aqueduct connects the Cannonsville
25 Reservoir to the Rondout. The East Delaware

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2 Aqueduct connects the Pepacton Reservoir to the
3 Rondout. Those aqueducts travel over or through
4 lands that are not part of the watershed as such.
5 So the green areas are within the watershed, and
6 theoretically would be protected under the State's
7 proposal with all of the many caveats. This red
8 striped area is the area that's in risk, the area
9 that the Hazen and Sawyer experts for DEP have
10 suggested needs to be protected and prohibited,
11 and drilling prohibited on those lands. And there
12 are two reasons why, and here's exactly what Hazen
13 and Sawyer said. They said, "The unreinforced
14 linings of the New York City tunnels were designed
15 to keep water in, not to withstand external
16 pressures from beyond those anticipated in their
17 design." So the structural integrity of the
18 tunnels is at risk here, if there is drilling
19 nearby, concluded Hazen and Sawyer. And then they
20 also said, "There is sufficient pressure under
21 natural and gas well enhanced conditions to drive
22 fluids or gas upward from deep formations into
23 tunnels or above grade. And there is potential
24 for both structural damages to tunnel linings and
25 violations of regulatory limits." So, in another

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2 diagram that accompanied the Hazen and Sawyer
3 study, which we should've attached to our
4 testimony, you can see the proposed Marcellus
5 horizontal drill going down here about 4,000 feet,
6 you see a designated fault or brittle feature in
7 the landscape that stretches from about 5,000 feet
8 down all the way up the surface. And so, what the
9 Hazen and Sawyer experts warn is that it would,
10 there's the possibility that fluids can get
11 carried through that fault line, through that
12 fissure, and intersect with, in this instance, the
13 West Delaware tunnel. So this is not some
14 theoretical risk but a significant risk identified
15 by the Hazen and Sawyer experts. We believe that
16 the--and again, nevertheless, the draft EIS, which
17 the State had this information before them, still
18 retains this 1,000 foot semi-buffer, as the
19 protective device. And the threats that you heard
20 about earlier today from the Department with
21 respect to the threat of dams, too. Now, again,
22 right now the City Department of Environmental
23 Protection is spending \$2.2 billion to build a
24 bypass tunnel around another portion of the
25 aqueduct that has weakened and has had leaks since

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2 the early 1990s. New York City ratepayers can't
3 afford to have other damage to their
4 infrastructure, and we encourage you to work
5 closely with Speaker Quinn, who we know cares
6 about this issue, and communicate these concerns
7 at the highest levels. Because there is still
8 time. This is just a draft. There'll be hearings
9 around the State. And we encourage everyone in
10 the audience to speak out on this and other
11 issues, as well. And thank you for holding this
12 hearing.

13 CHAIRPERSON GENNARO: Thank you.
14 Thank you, Eric. I'm just going to hold my
15 questions until everyone on the panel has spoken.
16 And Al, why don't--oh, okay, Craig, Craig
17 Michaels, from NRDC. Happy to have you to just
18 say your name for the record and then proceed.

19 CRAIG MICHAELS: [off mic] Yeah,
20 thank you very much, Councilman.

21 CHAIRPERSON GENNARO: Is that on?
22 Is that on? I don't think it's on.

23 CRAIG MICHAELS: Now it's on.
24 [laughs]

25 CHAIRPERSON GENNARO: Okay.

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2 CRAIG MICHAELS: Thank you,
3 Councilman Gennaro.

4 CHAIRPERSON GENNARO: Now the
5 people next door can hear Craig.

6 CRAIG MICHAELS: My name's Craig
7 Michaels--

8 CHAIRPERSON GENNARO: If the people
9 next door can hear Craig, shout, say aye.

10 PEOPLE NEXT DOOR: Aye.

11 CHAIRPERSON GENNARO: Okay, very
12 good [laughter] very good. We know you're in
13 there, 16. We know you're in there.

14 CRAIG MICHAELS: Excellent,
15 excellent. Well, I will try to be very brief. My
16 name, for the record, is Craig Michaels. I'm an
17 attorney and a consultant with NRDC. First, I
18 just want to thank Councilman Gennaro. I've
19 appeared before you and other members of the
20 Committee many times and I appreciate all of your
21 work and all the other Council Members and the
22 Committee's work on this and other important
23 issues. And I've been a resident of New York City
24 now for ten years, so every time I turn on the
25 tap, I think of the people that are working hard

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2 to make sure that it stays clean and unfiltered.
3 I'm going to try very quickly to just touch on
4 some things that maybe others have not yet touched
5 on. As Eric says, this draft document is better
6 than the one in 2009, that's not saying much. But
7 you know, there are some, there is a level of
8 analysis that we didn't see in the last time
9 around. However, it's still I think completely
10 inadequate and should really give New Yorkers zero
11 comfort in terms of the way this State is looking
12 to proceed with fast tracking this drilling
13 program. You know, just to touch on the water
14 supply infrastructure, which is, you know, one of
15 the reasons why we're here. I mean, one of the
16 things that I think the DEP failed to mention, is
17 that as you know, as a lot of people here know,
18 the Delaware Aqueduct has been leaking 35 million
19 gallons a day for about 20 years. That's part of
20 the reason that DEP and the City are finally
21 looking to repair it. And you know, even if the
22 DEC properly analyzed impacts to infrastructure,
23 which it did not, but even if they did, they
24 didn't look at impacts to already impaired
25 infrastructure, which is a big difference there.

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2 We're not talking about intact tunnels, we're
3 talking about tunnels that are leaking, that are
4 in desperate need of repair, that supply 50
5 percent of the water for half the state's
6 population. So that is a big question mark. In
7 terms of waste water treatment, you know, you can
8 read through all, you know, however many hundreds
9 of pages the DEC spends talking about how they may
10 treat the waste water. One thing that's not in
11 the DSGEIS, but has been said publicly by
12 Commissioner Martens, and I'm quoting here, this
13 is from an August 2011 interview with ProPublica,
14 "Currently, no waste water treatment plants in New
15 York," that's the entire State, "are equipped to
16 treat or permitted to accept waste water with the
17 range of contaminants expected to be in fluids
18 produced from high volume hydraulic fracturing."
19 There is no place to send this waste in New York
20 right now. So, that means one of two things:
21 either they're planning on shipping it out of
22 state, which certainly doesn't make us look any
23 better than we do now; or they're going to green
24 light private industrial treatment facilities,
25 which come with a whole host of other

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2 environmental impacts, which they spent one
3 paragraph analyzing in 1,500 pages. So, that is a
4 big issue. And just two things really quickly.
5 The, you know, the prohibitions, some of them are
6 good. Well, no, I shouldn't say that, I should
7 say the one for the New York City watershed, the
8 buffer of 4,000 feet's inadequate. We know that
9 drills can go more than 4,000 feet horizontally,
10 so you could technically have something that's
11 4,001 feet under the New York City watershed, and
12 you could actually still drill underneath the
13 watershed. And part of, if you read this
14 document, you see that DEC is just wholly
15 unconcerned with subsurface issues. They think
16 their casing and cementing requirements are going
17 to protect everything below the surface, and so
18 all the prohibitions are just on the surface
19 level. And that's simply, that's simply not
20 enough. When you look at State lands, they talk
21 about certain State lands being off limits. They
22 didn't say anything about the 17 percent of land
23 under their jurisdiction that is under
24 conservation easements. There's no discussion as
25 to how those'll be handled. And that's a big

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2 chunk of land. And lastly, I just wanted to
3 answer Councilman's question from earlier, 'cause
4 it is a good question, "Where does this 1,000 feet
5 come from when you're talking about the
6 infrastructure?" It's a--I mean, I would call it
7 a protocol that DEC and DEP agreed upon in the
8 ECL. I believe it's Article 23. So, all it says
9 is that if you're within 1,000 feet of say the
10 Delaware Aqueduct, we'll let DEP know and there'll
11 be some sort of environmental review. So it's not
12 a buffer, it's no protection whatsoever, certainly
13 not any permanent protection. And it's a, it's
14 based on a protocol that was established before
15 this activity was being contemplated. So, it's
16 completely inadequate. And in closing, I just
17 want to thank you all and I just want to, you
18 know, whether we're talking about the entire State
19 or just New York City, the Council and the elected
20 officials in this City have to stay this issue.
21 And we have to be a thorn in the side to the
22 Bloomberg Administration and the DEP who frankly,
23 while I respect them and a lot of people,
24 especially Paul Rush, you know, hearing that
25 they're going to have more consultants, they're g

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2 going to look at this closer, I mean, unless
3 they're thinking about expanding the seven mile
4 proposed buffer zone, you know, they need to stick
5 by, they need to stick by that, because you know,
6 geologically speaking, nothing has changed since
7 they wrote that in 2009. So, sorry if I went on
8 for too long. Thanks for listening.

9 CHAIRPERSON GENNARO: Thank you
10 [applause] thank you, Craig. Yeah. Okay, you
11 know, we're going to have to not have the clapping
12 and outbursts or booing and whatever. And so, you
13 can boo for me, and like that's about it.

14 [laughter] That's the only kinds of things that
15 we'll have. Anything else we'll just kind of keep
16 it ourselves. Mr. Appleton, it's always a
17 pleasure to have you here. And as the former, you
18 know, steward of the entire water system for the
19 City, you bring a really great perspective, and
20 we're honored to have you here. And looking
21 forward to your good testimony.

22 AL APPLETON: All right, thank you,
23 once again, plaudits are due to the Council for
24 continuing to defend the integrity of the City's
25 watershed. There are people who believe that the

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2 story of the watershed, including the 1990 episode
3 in which many in this room took part, is one of
4 the great successes of government. And one of the
5 great answers to the people who say that
6 government cannot do anything right. On the other
7 hand, the stupid attacks made by other branches of
8 the government upon it in recent years actually go
9 a great deal to support a certain amount of the
10 folklore about government that is less welcome.
11 I'd first of all very briefly like to echo what
12 Eric said about the process. The idea of passing,
13 trying to pass administrative regulations with an
14 EIS that is not even an EIS in those regulations,
15 has not yet been completed, is not only
16 ridiculous, I think it's arguably illegal. And it
17 certainly violates all the canons of orderly
18 administrative process that we have to have done.
19 Moreover, the haste at which this is being done
20 is, must really be called into question. This is
21 the future not only of New York City, but of most
22 of the upstate landscape for generations to come.
23 Why we suddenly feel as if we can only take 90
24 days to hear public comments, and only another 90
25 days to digest them, strikes me as really a very

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2 foolish way to run a government. The truth of the
3 matter is, these regulations probably should go
4 through about four iterations before they are
5 done. And that each time we'll make it better,
6 and each time we will learn from the comments, and
7 each time we'll see at least one or two things
8 that we missed coming through earlier. And that
9 is the way an orderly government would do this.
10 The natural gas industry is roaming around saying
11 we got 100 years of natural gas lying around in
12 this shale. Ignoring whether or not that's true
13 exaggeration of PR, for a second, if we do have
14 100 years lying around, then we certainly have an
15 extra year to take the time to make sure this is
16 done right. And we should really start there.
17 Now, the--I have no prepared testimony, but I want
18 to submit back to the Council the comments I made
19 in the EIS in 2009. They're only five pages, and
20 I hadn't planned to comment at all, until Eric
21 Goldstein kind of grabbed me by the scruff of the
22 neck and said there are a few things only you can
23 say, so I want to get to them. But before we get
24 to them, I want to talk about the infrastructure,
25 the 1,000 foot buffer. Like many people in this

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2 room, even though I was disappointed they only
3 went to the New York City watershed, I felt at
4 least the insanity of proposing, you know,
5 fracking, in the New York City watershed had
6 finally been dealt with, you know, in the way it
7 deserved and given the back of the hand. Then I
8 read about the buffer, 1,000 feet. Now, Eric
9 quoted you the relevant sections, or some of the
10 relevant sections from the Hazen and Sawyer
11 report, but only starts there. When we built
12 these tunnels, when we dragged them, we had
13 incident, we had constant problems with methane
14 invasion. There were explosions, there were
15 safety precautions that had to be taken. This is
16 not a theoretical concern, this is not somebody
17 looking at a map and saying, "We have seven mile
18 faults that'll be a pathway for racing gas and
19 fluids along." This is actual, honest to god
20 experience of a shale layer that's 600 million
21 years old, and has probably not changed very much
22 in the last 40 years. There will be testimony
23 later today by people like Michael LeBron about
24 other examples in Pennsylvania of multi-mile
25 transmission underground of these kinds of fluids.

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2 It is simply absurd to put the City at risk with
3 this kind of minimal buffer. But let's go
4 further. What risk are we now putting it? We
5 have tended to debate this thing in terms of would
6 the City lose its filtration avoidance? What we
7 have not spent enough time on this issue is
8 wondering whether or not the City would lose half
9 its water supply in 24 hours. Because you heard
10 what Eric said. Eric said that these tunnels are
11 not designed to withstand these kinds of
12 pressures. He said pressure, he didn't even
13 mention explosion. Methane has a bad habit of
14 exploding. Even though there are people who
15 argue, "Well, it's underground, so oxygen will
16 never get to it, there will never be any place to
17 spark," we've had a lot of predictions like that.
18 The Japanese were very confident nothing would
19 ever happen to their nuclear reactors. You know,
20 until the tsunami hit them. If you were to have
21 an explosion underground that breached the
22 Delaware River, the Delaware Aqueduct, you would
23 lose half of the City's water supply in 24 hours.
24 Now, the City can survive that event, but it will
25 not prosper during that era. It will cost the

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2 City hundreds of millions if not billions of
3 dollars, depending on how and where and how
4 quickly you can bypass this leak; depending on
5 what time of the year it is and whether the Croton
6 Reservoirs are full are shallow; whether the--
7 whether you are able to hyper pump them or you are
8 not. It is going to be a very, very, very hard
9 time for the City. And I would like any DEC
10 representative who is here to take this message
11 back to them, that no government will have its
12 legitimately, legitimacy survive--and again you
13 may take a look at the Japanese example--if this
14 kind of accident happened. Now, I'd like to ask
15 why are we risking this kind of accident? Let's
16 say we had a buffer zone. We might knock out 100-
17 200 wells, we might knock out a few million
18 dollars of royalties in the shale gas. What in
19 the name of heaven are we risking tens if not
20 hundreds of millions of dollars of economic damage
21 to New York a day, for a few dozen shale gas
22 wells. This is not common sense, in fact you
23 could make an argument that it's pretty close to
24 insanity. The other thing about this that I find
25 difficult to understand is the Cuomo

1 Administration is actually one of the few
2 administrations that understands the most
3 difficult problem in infrastructure management,
4 which is "What do you do about a very small risk
5 accident with a disastrous consequence?" And what
6 I'm referring to here is at Indian Point. The
7 Cuomo Administration has made a very commendable
8 and courageous decision to proceed with trying to
9 shut down Indian Point. But Indian Point at least
10 has the asset value of being something like 19 to
11 20 percent of the State's electric supply. We're
12 going to have to scramble, and I think it will be
13 good incentive, with green energy and stuff, to
14 make up for this lost power. I find it impossible
15 to understand how an administration that is so
16 wise about Indian Point, can be so stupid about
17 these kinds of buffer zones, particularly when
18 there is so much less at stake in terms of social
19 value, that these buffer zones will exclude. The
20 City of New York must sue if this requirement
21 stands unchanged. And it will win that lawsuit
22 because there is no reasonable basis for this
23 buffer. I believe I understand the etiquette of
24 being a DEP commissioner, I've been one myself;

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2 nevertheless, I think this is an instance in which
3 the City should sooner, not later, get the State
4 of New York to the table and tell them that if
5 they're in a hurry, this is not the way to proceed
6 in a hurry. This cannot stand. And the last
7 thing I can only say to Joe Martens, who I know
8 and respect, is its incomprehensible to me that
9 you would so do the right thing about the
10 watershed, and then so do the wrong thing about
11 the infrastructure that draws on the watershed.
12 All the credit the State of New York should be
13 getting for its leadership in the watershed, which
14 to me is an important starting point for
15 leadership in other watersheds, is being lost by
16 their insistence, by their incomprehensible
17 insistence that 1,000 feet is an adequate buffer
18 zone. What is the right buffer zone? It is ten
19 miles, it is not seven. Why do I say ten miles?
20 Because as the Hazen and Sawyer report pointed
21 out, the right distance for the buffer is the
22 distance from the longest horizontal lead. We now
23 know that from well sites you can have leads at
24 least two miles long. You intersect a two mile
25 long lead with a seven mile fissure and that's

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2 nine miles. And people will be pushing longer
3 leads. I think for safety's sake, we should be
4 talking a ten mile buffer zone around all of this
5 critical infrastructure that we have. I tend to
6 agree with Craig's comment that the 4,000 foot
7 buffer zone is also inadequate, but I'm not
8 prepared to kind of offer a proposal yet as to
9 what that would be, and in any event we have to
10 deal with this 1,000 foot buffer zone first. Some
11 other comments I would like to make very quickly.
12 As I said, Eric kind of bludgeoned me into writing
13 these six pages. And I wish the DEC had read
14 them, 'cause though I agree that this, that this
15 EIS is an improvement, it does not address, except
16 for the watershed, any of the issues that are in
17 here. The two really critical issues that are in
18 here are--well, there's three, actually. The
19 first is the question of what kind of filtration
20 are we talking about? Craig is exactly right.
21 These kinds of fluids cannot be dealt with by
22 normal sewage treatment. And this is no surprise
23 to anybody who's in the water quality business.
24 Two years ago, I said exactly that, in my comment
25 to DEC. You are talking about ordinary

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2 filtration, you are talking about super filtration
3 of some kind, that would be much more expensive
4 than standard filtration, much more problematic as
5 to its operation, its 100 percent operational
6 performance. About these, about putting these
7 fluids through filtration plants, I can only say
8 what Joshua said in "War Games": "The only
9 winning move here is not to play." The only way
10 to ensure we do not have these toxics in critical
11 watersheds, sacrosanct watersheds, to use the
12 Governor's phrase in his campaign, is to keep them
13 out of it. The, secondly, I've talked about the
14 fact we, you know, within this buffer zone, we
15 could lose within 24 hours half of the city's
16 water supply. But when we talk about filtration,
17 we talk about the problem of having to build it.
18 What we are not focusing on, neither for us nor
19 for Cooperstown nor for Rochester nor for
20 Binghamton, nor for Elmira, is if you had a
21 contamination could you build it in time? These
22 are very careful, very tricky things, dealing with
23 pollutants that don't normally go away. If you
24 were to wake up one morning and discovering that
25 you're beginning to get exceedences in things like

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2 benzene or diesel oil, you're not going to turn
3 that around in 24 hours. That's a multiyear
4 construction project and nothing in the EIS talks
5 about thresholds, warning levels, or the kind who
6 will pay for these kinds of expenses as they are
7 imposed on local government. The, I'm going to
8 give you a copy of this, Commissioner, I'm sorry
9 that for a variety of reasons I did not get--well,
10 I think you should've been Commissioner, Jim, but
11 be that as it may--

12 CHAIRPERSON GENNARO: Uh-huh.

13 AL APPLETON: --I want to talk
14 about enforcement, which is a bell I've been
15 ringing ever since Joe Levine dragged me into this
16 issue three years ago. When we did the watershed,
17 we added 450 new people. Scientists, planners,
18 lawyers, inspectors, technical assistance people,
19 community outreach specialists, for an area that's
20 an eighth the size of the Marcellus in New York
21 and is a less complicated problem. In civil
22 engineering, responsible firms always have someone
23 onsite, an independent inspector, whenever they
24 are doing concrete work. That alone is going to
25 be a huge staffing burden upon DEC. That I

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2 understand that a advisor group has been
3 assembled, I've seen some gossip that they're
4 talking about 200 new people. That is not enough.
5 I can tell you that does not begin to be enough
6 people. I haven't finished my calculations, but I
7 think a good rule of thumb would be one person for
8 enforcement, for every ten wells. 'Cause you
9 think about what this person's got to do: review
10 the documents, do the enforcements, do unannounced
11 inspections, answer public inquiries, you know,
12 follow up on these things. For a series of wells
13 that are scattered over the State, this is not a
14 low budget operation. And we don't have the
15 budget in the State to do it. Even if we had a
16 severance tax, which the State doesn't have
17 either, that severance tax should go back to the
18 local economy, it should not go to pay for the
19 cost of enforcement. So what I will be
20 recommending is that there be for all gas
21 companies that qualify to drill in the limited
22 areas that we should open to drilling, should have
23 a licensing fee. That this licensing fee should
24 be calculated to pay the cost of a full sized
25 enforcement staff, that this fee should be imposed

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2 annually, for as long as the company does
3 business, and the fee should be separate from
4 severance or any other kinds of taxes. And we
5 should be looking for a staff of some hundreds of
6 people, at least a couple hundred of whom should
7 be on staff, with the licensing fees, three months
8 before any actual drilling is allowed to begin. I
9 go back to Eric's observations on the severity of
10 the speed. If this is in fact 100 year resource,
11 and it is dealing in fact with 200 year
12 landscapes, we can afford to take a month, six
13 months, a year, you know, to put all of this
14 infrastructure of doing it right in place.

15 There's been some concern, in closing, there's
16 been some concern upstate that New York, having
17 gotten the watershed protected, except for this
18 little, tricky little problem, of course, you
19 know, is going to walk away from other watersheds.
20 There's also concerns that DEC is going to use
21 this as an argument that they've taken care of the
22 critical water resources and that filtration will
23 do the rest. My answer to that, and it's an
24 answer I hope the City will pass on as well, is
25 that obviously if we're not going to protect the

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2 New York City watershed, we weren't going to
3 protect everything, anything. But there's nothing
4 that says this is the only watershed that should
5 be protected. If we look at performance, if we
6 look at drinking quality standards, then there are
7 a lot of watersheds, significant watersheds in the
8 State that should be drilled. The State
9 recognizes there are site specific reasons for
10 banning things. They banned drilling in State
11 forests and many other categories of State land.
12 The State can ban drilling in watersheds, like
13 Cooperstown and Rochester and Elmira and
14 Binghamton. They can ban drilling in suitable
15 buffer zones around municipal well heads. They
16 can ban drilling on local towns that have seen
17 what's happened in Pennsylvania and don't want the
18 impacts. The, this is a very early industry. It
19 has time to grow up and learn how to do things
20 right, and we should encourage them to do so. But
21 I ask one final question. The thing that strikes
22 me in working on this issue, that struck me more
23 and more as I've had more and more contact with
24 it, is the extent to which the natural gas
25 industry and its allies are really looking to the

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2 past. Yes, they can make a lot of money. The
3 truth of the matter is the United States in the
4 1850s, that was one of the most profitable decades
5 for slaveholding. Even though we happened to know
6 by that time that slaveholding was absolutely
7 doomed to extinction. Fossil fuels have been
8 great. Nature was good to us, we've had 250 years
9 of economic growth that have rested on fossil
10 fuels. It's a hard thing to give up. But between
11 global warming and the kind of environmental
12 impacts we are now looking at to keep our fossil
13 fuel habit, the cost curves have changed. Now the
14 cost curve of using fossil fuel is crossing the
15 benefit curve. And there's a whole new world out
16 there, a world of solar and heat pumps and wind
17 and energy conservation, and even more interesting
18 and exotic things coming down the line. It's not
19 the time or place to talk here, 'cause I don't
20 want the centrality of your message about the
21 infrastructure to be obscured. But for everyone
22 who's working on this issue, I think it's really
23 critical that we get, we not just put this as a
24 pollution versus progress issue. The real issue
25 here is the past versus the future, and we should

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all be on the side of the future. [applause]

CHAIRPERSON GENNARO: All right.

AL APPLETON: No clapping, no clapping.

CHAIRPERSON GENNARO: Thank you.

Thank you. Thank you, Al, that's most appreciated, and I made some notes on all of your comments, and I guess let me perhaps start at the end and work backwards. With regard to like the lawsuit option, and you mentioned that this is, you know, something that the DEP can sit down with folks and have a real, you know, tough talk with the, with the State and put that on the table, and in a sense say, "Look. Like we really need, we need, like we're not really trying to give anybody a hard time, but we got to protect our water, and if we don't we're going to have to do like what we have to do." And you probably know better than anyone, being part of city government, that there is, there are just ways that the, you know, State can make life pretty miserable for local governments, including like big local governments like the City of New York. And while it would make sense and perhaps in some sense for the City

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2 to kind of like flex on the State, so to speak, is
3 there some other entity that can come forward and
4 play that role and be sort of like the threatening
5 lawsuit bad guy. And whatever, how would that
6 work? And I'm not a lawyer, I'm a science guy,
7 but in terms of people who can sort of make that
8 credible, like--let's not call it threat, but
9 let's say promise, you know, and like, make that
10 kind of promise. Are there other folks other than
11 like the City that can really do that?

12 AL APPLETON: Well, there are, but
13 I'm going to let them speak for themselves. The
14 important point about the City is there's nothing
15 the City can, the State can do to us that would be
16 more miserable than wrecking our--

17 CHAIRPERSON GENNARO: Right.

18 AL APPLETON: --you know, water
19 transmission. And since the State knows as well
20 as we do that, you know, the threats they can make
21 against local government, I think it will be all
22 the more impressive that if the City makes it
23 clear from the very beginning, that the fact we're
24 being polite and low key does not mean this will
25 ever be acceptable.

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ERIC GOLDSTEIN: Amen.

CHAIRPERSON GENNARO: But, and so just a, just a note to staff, I just want to just have a little more dialogue with staff about the whole lawsuit thing and how that would work and sometimes I'm too nice for my own good myself, you know. And, and with regard to the ten mile buffer, that's probably going to be contrary, you know, to what the City is going to ultimately be, you know, putting forward. And so, people go through the time to kind of, you know, make that argument, then, and there'll be this body of science that says, "Well, you know, seven is good enough." I guess I'm just trying to figure out how that would happen, I guess one way to do it is the City's bring on, you know, all these new geological folks who could perhaps put that forward as their new, you know, benchmark, perhaps.

AL APPLETON: Well, Mr. Chairman, I don't want to kind of--

CHAIRPERSON GENNARO: 'Cause I always want to, I just--I like to have these hearings for the purposes of trying to figure out,

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2 you know, some kind of strategy that I might be
3 able to make happen. And--

4 AL APPLETON: Right, well, I
5 understand that. But I think we can get too
6 tactical before we've really--

7 CHAIRPERSON GENNARO: Right.

8 AL APPLETON: --made the strategic
9 case for it completely nailed down. Ten miles is
10 the right distance, both in terms of the
11 geological factors, as identified by Hazen and
12 Sawyer and other, but also as opposed--when
13 considering the so-called benefits that would be
14 lost.

15 CHAIRPERSON GENNARO: Right.

16 AL APPLETON: I mean, this is a
17 risk/gain equation, it's all risk and virtually no
18 gain. And I think the stronger the City's
19 position is on the merits, then the easier it's
20 going to be to make those right kinds of tactical
21 calls at the right time.

22 CHAIRPERSON GENNARO: Okay. That's
23 fair enough. And with regard to what you said
24 about possible types of legal action, the
25 rulemaking that's going on at the same time as the

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review of the EIS is, you said that maybe some legal questions as to that, would that be part of it? That's just like another--

AL APPLETON: Well, let me make something clear. DEC I think is responding positively to the objections of - - justice and others. That if the EIS is not accompanied by rulemaking, it would just be permit guidelines, you know, that could be--so, I think--

ERIC GOLDSTEIN: Without half the message.

AL APPLETON: So, yeah, that's right, I think Eric just put it the right--they definitely got to, that good half of the message they got. Once again, though, you know, just like with their putting watershed off limits, they're undermining their own good deed, you know, by the way they're going about it.

CHAIRPERSON GENNARO: Right.

AL APPLETON: So, the administrative law likes orderly processes. I'm not a practicing lawyer the way Eric is, but I am a pretty good lawyer in my spare time, and I think the, I think we should pus that button and see

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what comes.

CHAIRPERSON GENNARO: And would it be fair to say that, and I think I've heard some statements to this effect, so far this morning, would it be fair to say that by, that the State by doing these processes, right at the same time, almost has no choice other than to not make significant changes in the EIS? They kind of like locked themselves into that position. It makes the process look like a little bit of a sham, that like before you have the comments in, you're, you know, writing the rules and regs. And not even giving themselves the ability to really appear that it's like a real process. Is that fair to say?

AL APPLETON: I think that's fair to say.

CHAIRPERSON GENNARO: Thank you. And going to Craig now, with regard to your comments about the Commissioner making the statement that there aren't plants in the State that can handle these kinds of substances, which in your mind would either open the door to, I guess the creation of some sort of standards for

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2 like State plants that are already here, to do
3 that, or would open the door for private treatment
4 plants. Which way do you think that could go? I
5 mean, if it's--you got to do something with it,
6 you either got to move it out of the state or you
7 have to do it here, in a plant that's already
8 here, or a plant that would be built just for
9 that. And the fact that the, that Martens said
10 that the current plants in the State don't really
11 have that ability, where they have to be like some
12 kind of capability built into those plants, or how
13 do you think this would work?

14 CRAIG MICHAELS: I mean, I--

15 CHAIRPERSON GENNARO: I'm really
16 just asking you to go a little beyond, like what
17 you just said about--

18 CRAIG MICHAELS: Yeah. I mean,
19 that is, I think that is one of, you know, top
20 ten, top 20 unanswered questions here. And I, I
21 hesitate at really making a guess as to how this
22 would work. And frankly, I think DEC, that's, you
23 know, their job is to analyze, which they haven't
24 done properly. The potential ways that this might
25 happen, and what sort of environmental impacts

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would go along with either of, any of those scenarios, either having--

CHAIRPERSON GENNARO: Wouldn't it have to be nailed down before anything were to proceed?

CRAIG MICHAELS: One would hope, yeah, I mean, one would hope that you wouldn't plan on permitting before you knew exactly where the waste was going. And again, there's just, there's all sorts of issues that come into play, in terms of--

CHAIRPERSON GENNARO: How about the private plants--

CRAIG MICHAELS: --interstate transportation of hazardous waste, if you're chucking it out of state, all sorts of technological innovation that we'd need to see for the publicly owned treatment works that aren't currently equipped. And again, all, you know, Al mentioned enforcement, and you know, the adequate staff to monitor and permit.

CHAIRPERSON GENNARO: Right.

CRAIG MICHAELS: You know, so, not only do you need that for any drilling, you'd also

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need that for any sort of private industrial plant. So, I--

CHAIRPERSON GENNARO: Well, why don't we do this, I mean, but--

CRAIG MICHAELS: Sure.

CHAIRPERSON GENNARO: --what are they doing in other states? I mean, just to use that. I mean, this is going on in other states, they're doing something. I mean, they're either treating it through plants that shouldn't be treating it, they're sending it out of state, or they, you know, built, you know, some kind of private plants is there. Do you have a handle on what other states are doing that--

CRAIG MICHAELS: Well, you know, I think, I mean, I'll probably, I think some others, you know, following us are probably, you know--

CHAIRPERSON GENNARO: Okay.

CRAIG MICHAELS: --like Joe and Michael might be better equipped to say what's going on in Pennsylvania. But I--

AL APPLETON: Let's just say that Pennsylvania isn't a model for anything.

CHAIRPERSON GENNARO: Right, I'm

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just [laughter] yeah. Yeah.

CRAIG MICHAELS: Exactly.

[background comments]

CHAIRPERSON GENNARO: No, no, stop, stop, stop, stop. You can't, you can't speak from the gallery.

CRAIG MICHAELS: But I--I don't think there's any state that has, that has even begun to have a handle on the types of problems they're creating by green lighting this, these sorts of operations. You know, you can point to, you know, high levels of dissolved solids in the Monongahela, you can point to private water pollution in Wyoming, you know, you can look at any state where this has gone on, and there are problems. And those are just the ones we know about.

CHAIRPERSON GENNARO: Right.

CRAIG MICHAELS: And those are, those don't include any of the private settlements that have gone on, we're talk--you know, and now I'm getting on private water, which obviously is a--private water wells, which is a big concern. You know, it's just, you know, we're losing a, I

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2 think nationally we're losing a grip on this, very
3 quickly. And that's why I think we've got to put
4 the, put the brakes on in New York, 'cause we're
5 really the only ones left.

6 CHAIRPERSON GENNARO: Right.

7 CRAIG MICHAELS: We're the only
8 state that's actually said "Maybe we should look
9 at this beforehand." So--

10 CHAIRPERSON GENNARO: Right.

11 CRAIG MICHAELS: --we got to, we
12 got to actually take a much harder look than we
13 have.

14 CHAIRPERSON GENNARO: Thank you.

15 Thank you, Craig.

16 CRAIG MICHAELS: Yep.

17 CHAIRPERSON GENNARO: And Eric, you
18 started about with the fast track for the rules,
19 and you know, that's a point that Al followed up
20 on. And I guess you made the point that I just
21 made that, you know, they made their, pretty much
22 made their mind up, with regard to the regulatory
23 proposal. And I guess this is something that NRDC
24 and, it's going to be focusing on like with regard
25 to its comments. And I don't know if you're

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2 really--I'm, I'm not quite sure like what the
3 protocol is with regard to you speaking as a, in
4 this setting here today, as a member of this
5 advisory committee that's, you know, that's been
6 put together by the Governor, have those folks,
7 you know, met yet as a body? And is this a hot
8 topic? And is this panel that's been created, do
9 you think this is going to bear fruit in terms of,
10 you know, being able to resolve some of these
11 things and because so far like that hasn't come up
12 yet. I'm just--just trying to figure out, you
13 know, how much hope we can, you know, vest in this
14 panel that's been created to kind of get us out of
15 some of these sticky issues that we're talking
16 about today.

17 ERIC GOLDSTEIN: Right.

18 CHAIRPERSON GENNARO: And I don't
19 know if it's okay for you to talk about that or
20 whatever you think, you know.

21 ERIC GOLDSTEIN: Yeah. I think it-
22 -we give our advice to whoever asks.

23 CHAIRPERSON GENNARO: Okay.

24 ERIC GOLDSTEIN: Three quick
25 things, first on the process point you've made

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2 about the EIS review and the rulemaking review
3 going at the same time. That's very troubling,
4 but it's not yet a done deal. They have not yet
5 released those draft rules, and they haven't set a
6 timetable for those--end of comment period for
7 those draft rules. So, this is a time where we
8 believe that those in New York City and around the
9 State, who care about the fate of this whole
10 program, need to reach out to folks they know in
11 Albany and let them know that strictly from a
12 process standpoint, strictly from upholding the
13 integrity of the environmental review process, and
14 because at least in theory the Department will
15 benefit from its public comments, and as Al said,
16 perhaps even get a couple of ideas they hadn't
17 thought of, and incorporate them as they move
18 forward with the rulemaking, we believe that
19 there's a chance that the agency, DEC, will be
20 responsive on that, if they hear from enough
21 people. And particularly if they hear from the
22 Council, in this case. So we would encourage you,
23 sooner rather than later, to find, you know, your
24 favorite way of communicating and working with
25 your colleagues and working with the Speaker on

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that. Second, with respect to--

CHAIRPERSON GENNARO: Well, I, I'd just like to jump in.

ERIC GOLDSTEIN: Yeah.

CHAIRPERSON GENNARO: With regard to talking to folks in Albany, Albany is like not a big town but it's like a lot of people up there, and I take that to mean to talk to people who are like governor people or like DEC type people, and like not so much the legislature, right?

ERIC GOLDSTEIN: Correct.

CHAIRPERSON GENNARO: Talking to the executive, right.

ERIC GOLDSTEIN: I think you've named the two appropriate power centers on this.

CHAIRPERSON GENNARO: Right, okay.

ERIC GOLDSTEIN: With respect to the panel, the panel's jurisdiction is relatively limited and is focusing primarily on resources that the agencies, all State agencies, and we hope local agencies, would need, to be able to monitor, supervise, enforce, document, remediate situations. And so it goes from preventive steps to after-the-fact, to a, an effective regulatory

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2 program. And that, that is one focus because as
3 others, Al, has testified, right now the State DEC
4 is wholly unequipped, and it acknowledges this, to
5 have a comprehensive regulatory program that would
6 oversee hundreds if not thousands of wells being
7 drilled. The same with other agencies, the State
8 health agencies. So right now, those agencies are
9 coming to the panel and presenting information on
10 the resources they would need to be able to
11 supervise a comprehensive program. The second
12 issue, the panel is looking at is less well
13 defined now, it's the second issue on the agenda,
14 and that will be how can the impacts on local
15 communities be mitigated. And I'm not sure that
16 the environmental representatives on that panel
17 and the State representatives are thinking about
18 those mitigation alternatives the same way, but
19 we've got some ideas in mind, we'll be coming up
20 with those. The whole understanding of this
21 advisory committee panel process is that it will
22 play in to the EIS review, and it'll play into the
23 rule making process. Those are the public
24 processes that ought to be and we understand will
25 be defining all of these programs. So we'll be

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2 giving recommendations on those two issues of
3 resources and protecting local communities. And
4 then finally just 30 seconds on waste water. The
5 one thing that we would question that in
6 Commissioner Rush's otherwise excellent testimony
7 today, was whether DEP has the authority to
8 regulate what goes into waste water plants, what
9 comes out of waste water plants, in the watershed.
10 And we believe that DEC, DEP, rules and
11 regulations, do allow DEP to establish limits on
12 pollution discharges within the watershed. And
13 that would include discharges from sewage
14 treatment plants, that if they were nutty enough
15 to try it, these are the private plants, not the
16 City owned plants, to try to establish pre-
17 treatment programs. So, in the, as a last
18 backstop, DEP's own regulatory regime could
19 protect the watershed itself. What would be far
20 preferable would be to have DEC prohibit it in the
21 watershed, and indeed look very carefully at an
22 issue that so far, as Craig mentioned, they have
23 not, which is what's really going to happen with
24 this waste wherever it's produced within New York
25 State.

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2 CHAIRPERSON GENNARO: Thank you for
3 that last point. Is there any way that I could
4 perhaps just, if you'd be, you know, willing to
5 kind of flesh that out and send that over to
6 Samara, probably we'd have that, kind of like, you
7 know that like, you know, legal opinion and
8 whatever, so we can have that a little bit.

9 ERIC GOLDSTEIN: Happy to do so.

10 CHAIRPERSON GENNARO: And so, thank
11 you, Eric, and thank you, Samara, for taking a
12 look at that. And you guys are a great panel, but
13 I'm not going to applaud. Okay? 'Cause we can't
14 do that. But thanks very much for being here
15 today. And you know, this is by no means our last
16 conversation, far from it. Miles to go before we
17 sleep, and you're going to be like really sick of
18 me by the time this is all done. Thanks very
19 much, appreciate it.

20 ERIC GOLDSTEIN: Thank you, Mr.
21 Chairman.

22 CHAIRPERSON GENNARO: And the next
23 panel, like I had mentioned, Riverkeeper, McKenzie
24 Shoemaker or Shoemaker; Dusty Horwitt of the
25 Environmental Working Group; Cathleen Breen from

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2 NYPIRG. And--[background voices] Oh, okay, okay.
3 And then, we're going to announce the next panel
4 that will be after the panel that I just called.
5 There's a representative of Borough President
6 Stringer, Sara, looks like Valenzuela; Wes
7 Gillingham of Catskill Mountain Keeper; Michael
8 LeBron of Damascus Citizens; Joe Levine, New York
9 H₂O/DCS/Citizens for Water. That'll be the panel
10 after this. Okay? Oh, hang on a second, what?
11 Oh, yeah. [pause] Oh, okay, and we made copies
12 of the USGS testimony. Bill from my staff tells
13 me that we have those, if people want copies of
14 that. We can make that available to folks. But
15 let's move things along, let me thank this panel
16 for being here. Grateful for your patience and
17 for everyone who's waiting to speak.

18 SERGEANT-AT-ARMS: Quiet, please.

19 CHAIRPERSON GENNARO: As I drone
20 on, and I'd like to ask Samara to swear in the
21 panel, and then we could, we could get toing. So,
22 I got Riverkeeper, Environmental Working Group--
23 Samara, I need you to swear in the panel.

24 [pause]

25 COUNSEL: Gentlemen, will you

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2 please raise your right hands. Do you swear--and
3 ladies--do you swear or affirm to tell the truth,
4 the whole truth and nothing but the truth today?

5 PANEL: Yes. We do.

6 COUNSEL: Thank you.

7 CHAIRPERSON GENNARO: Okay, and so,
8 why don't we go from my right to my left, why
9 don't we start with Cathleen. Do you have a
10 statement, do you have a--was that statement given
11 out, Sergeant, from the NYPIRG, we have a NYPIRG
12 statement? Yes, okay. I'll take that.

13 [background comment] Okay, yeah, but I'll just,
14 I'll just--Yeah, okay, I'm not going to mark it,
15 okay. Great. Okay. Cathleen, if you could just
16 say your name for the record and proceed. Yeah,
17 you got to turn on the mic.

18 CATHLEEN BREEN: Good afternoon, my
19 name is Cathleen Breen, I am the Watershed
20 Protection Coordinator for the New York Public
21 Interest Research Group, NYPIRG. NYPIRG has long
22 been active in protecting New York City's drinking
23 water supply, and it's a signatory to the 1997
24 Watershed Memorandum of Agreement. We commend the
25 City Council for holding this hearing on this very

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2 important issue. The MOA represented a
3 comprehensive effort--

4 CHAIRPERSON GENNARO: You know what
5 also, Cathleen, if I could just make a note to the
6 Sergeant. Sergeant? Sergeant? Yeah. Sergeant?
7 Yeah. Someone get the--Sergeant! Nick. Nick, I
8 need you, you're on. Nick. Okay, when folks
9 leave this room, we will have the ability to take
10 some folks that are now in six, now in the door,
11 and bring them in. I don't know how quite we do
12 that fairly, because some people say, "I was here
13 first," or whatever. But I just want to just put
14 forward the concept that as space opens in the
15 main room, people can bring 'em in and I don't
16 know how we figure out how we do that. And so,
17 but that'll be great. Okay, sorry for the
18 interruption, and Cathleen, you're back on.

19 CATHLEEN BREEN: No problem. The
20 MOA represented a comprehensive effort to protect
21 and preserve New York City's high quality water
22 supply while preserving and enhancing the economic
23 vitality and social character of the communities
24 within the watershed. The City's \$1.5 billion
25 investment to date in comprehensive watershed

1 protection efforts has paid off. New York City
2 continues to qualify for a filtration waiver, or
3 filtration avoidance determination from the EPA.
4 However, if the City fails to demonstrate that it
5 can successfully protect the system from
6 pollution, City officials will be ordered to build
7 a filtration plant. The practical consequences of
8 that decision will be that water rates will rise,
9 threatening tens of thousands of housing units in
10 the City's poorest neighborhoods, and funds will
11 be drained from police, infrastructure,
12 healthcare, culture, transportation, fire, sewage
13 and other City services. Worst of all, there's no
14 guarantee that a filtration plant will preserve
15 public health. The MOA and the FAD [phonetic] do
16 not guarantee that our water would remain safe?
17 Rather it began years of hard work and vigilance
18 that we believe have been essential to protecting
19 our drinking water. Granted, there have been
20 threats over the years that have challenged the
21 City's ability to continue to meet filtration
22 requirements, and its ability to deliver safely
23 that water to the more than nine million New
24 Yorkers who rely on it. However, never before has
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2 there been such a threat to the integrity of our
3 water supply and delivery system, as the threat of
4 natural gas drilling, an intensely industrial
5 activity. We believe the gas extraction method
6 proposed for the Marcellus Shale Formation known
7 as high volume, horizontal, hydro-fracturing, or
8 hydrofracking, carries a potentially huge
9 environmental price tag. In response to the new
10 gas extraction technique, the Department of
11 Environmental Conservation, the agency charged
12 with overseeing gas drilling in New York, agreed
13 to update its 1992 regulations. However, as we
14 know, the draft Supplemental Generic Environmental
15 Impact Statement, released in 2009, was woefully
16 inadequate, prompting Governor Patterson to issue
17 an Executive Order in December 2010, and confirmed
18 by Governor Cuomo, calling for further review.
19 Specifically, the Executive Order instructed DEC
20 to, and I quote, "Make sure revisions to the draft
21 SGEIS that are necessary to analyze
22 comprehensively the environmental impacts
23 associated with high volume, hydraulic fracturing
24 combined with horizontal drilling, ensure that
25 such impacts are appropriately avoided or

1 mitigated, consistent with SECRA [phonetic], other
2 provisions of the Environmental Conservation Law,
3 and other laws, and ensures that adequate
4 regulatory measures are identified to protect
5 public health and the environment. However, the
6 recently released, revised SGEIS did not fulfill
7 the requirements of the Executive Order, and did
8 not provide the needed assurances that New Yorkers
9 health and environment would be safe. There are
10 many serious concerns about hydrofracking, that
11 the revised SGEIS does not adequately address,
12 including it does not address cumulative impacts,
13 it does not analyze public health impacts, it does
14 not classify drilling waste as hazardous waste, it
15 allows drilling waste water to be sent to
16 treatment plants, yet currently no plant is
17 designed to handle the water now loaded with
18 dangerous chemicals and other contaminants and
19 possibly radioactive. It does not ban the use of
20 toxic chemicals, and the setbacks from drinking
21 water supplies sunset and/or can be waived. It
22 does not adequately analyze the impact to local
23 infrastructure. Moreover, it does not adequately
24 protect New York City's drinking water
25

1
2 infrastructure by allowing drilling dangerously
3 close to many of the aging aqueducts and tunnels
4 that deliver water to the City. As the New York
5 City DEP noted in its 22, as you heard today, the
6 December 22, 2009 comments to DEC, this was a
7 critical issue of concern. And I quote again, but
8 I think it's important to remind everyone that
9 science should rule this process, so I again quote
10 Hazen and Sawyer on this important point: "The
11 unrefined linings of the City's water tunnels were
12 designed to keep water in, not to withstand
13 external pressures. Fracking raises the distinct
14 possibility that the unreinforced tunnel linings
15 will be exposed to pressures in excess of their
16 design strength. The 1,000 foot buffer proposed
17 in the revised draft does not, is not sufficient
18 to ensure New York City can continue to deliver
19 its prized water to consumers." DEP stipulated
20 necessary buffers in its 2009 comments, "To
21 protect water quality and water supply
22 reliability, infrastructure integrity, natural gas
23 spacing units should be excluded within a buffer
24 zone of at least seven miles from the New York
25 City infrastructure. And this distance is based

1 on the lateral extent of known fractures that
2 intersect DEP tunnels." There are many reasons to
3 be concerned with the State's position on
4 hydrofracking. DEC has opted to fast track the
5 process instead of following Executive Order 41,
6 and undertaking a true environmental review that
7 include sound, scientific analysis and a public
8 health impact assessment. DEC does not have the
9 staff or resources to monitor this intense
10 industrial activity, or to enforce the guidelines.
11 And DEC is allowing permitting before formal
12 rulemaking is complete. Therefore, in
13 consideration of the aforementioned, we believe
14 DEC should rescind this draft SGEIS and instead
15 fulfill the requirements of Executive 41. For New
16 York City, the sensitive water infrastructure is
17 at risk and there is much to lose if the City's
18 water supply is compromised. Also at risk is the
19 drinking water for people living in the impacted
20 area where drilling is expected to take place. We
21 believe these risks are unacceptable. Everyone
22 deserves to have safe, clean drinking water. In
23 conclusion, this is one of the most important
24 issues facing New York, and we must make sure all
25

1
2 New Yorkers are protected from the dangerous of
3 horizontal hydrofracking. Thank you for providing
4 me this opportunity testify.

5 CHAIRPERSON GENNARO: Thank you,
6 Cathleen. No, no, no, we're not going to clap.
7 But thank you, I'm just going to hear all the
8 testimony before I post questions. Grateful for
9 you to be here. Mr. Horwitt. Good to see you
10 again, thank you for coming up.

11 DUSTY HORWITT: Thank you, Mr.
12 Gennaro, and Members of the Committee. Thank you
13 for having me here to testify. My name is Dusty
14 Horwitt, I am Senior Counsel with Environmental
15 Working Group, we're a Washington, D.C. based
16 nonprofit research and advocacy organization. Gas
17 drilling as we know poses great risk, both the
18 financial, the finances of New York City, New York
19 State and to the health of New Yorkers. We've
20 reviewed the revised Environmental Impact
21 Statement from the DEC, and while some of its
22 provisions could make drilling safer, we are not
23 convinced that if the State allows high volume
24 hydraulic fracturing horizontal drilling that it
25 can, the State can act sufficiently to protect New

1
2 York City's drinking water supply, or the drinking
3 water supplies of other communities in New York.
4 The State's Environmental Conservation Department
5 says the gas industry is unlikely to create many
6 jobs from New Yorkers. There's a quote from the
7 revised EIS which is, "Given the newness of the
8 industry, it is assumed that in year one, 77
9 percent of the total workforce would be transient
10 workers from outside the state." The DEC goes on
11 to speculate that eventually 90 percent of the
12 workers would be local, but not until year 30 of
13 shale gas development. A handful of jobs in the
14 drilling industry could cost New York City and
15 other communities in the state billions of dollars
16 that New York doesn't have. And that's why it's
17 especially important for the State to proceed
18 carefully with this issue. I'm going to echo some
19 of the other things that a number of speakers have
20 said, and I'll try to add a few comments from our
21 own research. We've, several serious concerns
22 about the DEC's plan as far as protection of
23 drinking water. First, the setback distances we
24 agree are inadequate. Both from New York City's
25 watershed, water infrastructure, and also for

1
2 upstate water supplies. We also believe there's
3 not enough scientific understanding yet of how
4 hydraulic fracturing and gas drilling can impact
5 water to know exactly what these safe setback
6 distances should be. Third, the regulatory, the
7 regulators, a number of regulators, are totally
8 inadequate to regulate this industry. They're
9 going to be facing the natural gas industry, one
10 of the world's largest industries that has shown
11 recently that it's willing to push the legal
12 envelope through a massive violation of the Safe
13 Drinking Water Act, for which it has yet to be
14 held accountable. Reuters reported recently that
15 the DEC has 14 inspectors for 13,000 oil and
16 natural gas wells. These 14 overworked inspectors
17 are what stands between New York City and a
18 multibillion dollar disaster. The DEC estimates
19 that a filtration plant would cost New York City
20 \$8 billion at minimum. And doesn't guarantee, as
21 you know, that the water could even be cleaned up.
22 So, we would like to see much stronger provisions
23 put in place, especially better setback provisions
24 before gas drilling goes forward. And let me just
25 make a few specific comments. We have studied a

1
2 number of cases of migration of pollution from gas
3 wells around the country. For example, in
4 Garfield County, Colorado, there was a migration
5 of natural gas and related contaminants that
6 polluted a creek known as Divide Creek in 2004,
7 with unsafe levels of benzene. These contaminants
8 traveled 4,000 feet from the gas well to Divide
9 Creek. This year, seven years later, monitoring,
10 ground water monitoring wells near Divide Creek
11 still show unsafe levels of benzene. There was an
12 incident in 2007 in Bainbridge, Ohio, where an
13 improperly drilled natural gas well caused a home
14 to explode, contaminated 23 water wells. The
15 state launched an investigation and found that at
16 least one of those wells was 2,300 feet away, the
17 water well was 2,300 feet away from the gas well;
18 another one was 2,200 feet away; several others
19 were more than 1,000 feet away. These examples
20 and others call into further question the 1,000
21 foot kind of buffer or not really buffer zone
22 between the gas drilling and the underground
23 aqueducts. We share the concerns about the, about
24 the watershed itself being put off limits with
25 just a 4,000 foot buffer put around it. Our

1
2 understanding also is that companies could drill
3 underneath, horizontally underneath this buffer
4 zone, up to the edge of New York City's watershed,
5 or even underneath it. Then if the company's
6 hydraulically fractured those wells along that
7 horizontal portion of the well, we've seen
8 evidence that hydraulic fractures can travel 2,300
9 feet or 2,500 feet, that would be additional to
10 the length of the well. They could go under the
11 watershed. One of the key concerns that we have
12 with hydraulic fracturing is that it could
13 intersect with abandoned oil and natural gas
14 wells. New York State has an estimated 75,000
15 abandoned oil and natural gas wells, half of which
16 are in unknown locations. Those wells could be
17 conduits for migration. I just have one
18 illustration here. We recently studied a 1987
19 Environmental Protection Agency report to
20 Congress, which concluded contrary to industry
21 assertions that hydraulic fracturing can and did
22 contaminate underground sources of drinking water.
23 Our report was cited in the New York Times, among
24 other places. And this illustration shows what
25 may have happened in the case study the EPA

1 included in its report. The hydraulic fracturing
2 fluid was injected in that center well, you'll see
3 the arrows going down. I'm sorry I don't have a
4 laser pointer here. And then the hydraulic
5 fractures extend outward, going to both sides,
6 underground, in a shale formation, this well, the
7 EPA highlighted, was in a shale formation. And
8 then you see over on the left hand side, there
9 was, there's a, there were several abandoned wells
10 near this gas well in West Virginia the EPA
11 highlighted, and what could have happened in this
12 case is that the hydraulic fractures intersected
13 with that well, causing contaminants to rise up
14 the well, and break out into the aquifer. This is
15 a documented phenomenon in the realm of injecting
16 waste fluid from natural gas and oil operations
17 underground for disposal. There has been
18 migration up old oil and natural gas wells where
19 it has broken out and contaminated aquifers. Just
20 in conclusion, we just want to emphasize again
21 that natural gas drilling is an inherently risky
22 process that could have serious impacts on New
23 York City's drinking water, and water supplies in
24 the rest of the State. The State's proposal
25

1 indicates it is not taking the risks as seriously
2 as it must. And the citizens of New York and the
3 rest of the State should demand more rigorous
4 research and a greater commitment to oversight
5 before shale gas drilling can proceed. Thank you.

6 CHAIRPERSON GENNARO: Thank you.
7 Thank you very much. And I'll have comments for
8 you as well. Thank you, Dusty. Okay,
9 Riverkeeper, now on the slip, it said Mackenzie
10 Shoemaker, Shoemaker? But--

11 MACKENZIE SCHOONMAKER:
12 Schoonmaker.

13 CHAIRPERSON GENNARO: Oh,
14 Schoonmaker, pardon me, pardon me. And, and
15 Katherine Hudson is somebody else.

16 MACKENZIE SCHOONMAKER: Yes.

17 CHAIRPERSON GENNARO: Right, okay.

18 MACKENZIE SCHOONMAKER: Catherine
19 Hudson is our Watershed Program Director--

20 CHAIRPERSON GENNARO: Okay.

21 MACKENZIE SCHOONMAKER: --who
22 unfortunately could not be here today, but I am
23 giving the testimony on both of our--

24 CHAIRPERSON GENNARO: Oh, thank
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1
2 you, I appreciate that.

3 MACKENZIE SCHOONMAKER: --behalfs.

4 I want--good afternoon, my name is Mackenzie
5 Schoonmaker. I am an attorney for Riverkeeper.
6 And I want to thank the New York City Council for
7 having Riverkeeper here today and giving us an
8 opportunity to testify, and thank you, Mr.
9 Gennaro. Riverkeeper is a member supported
10 watchdog organization whose mission includes
11 safeguarding the environmental, recreational and
12 commercial integrity of the watershed that
13 provides New York City its drinking water.
14 Riverkeeper is actively involved in advocacy and
15 public education surrounding the issue of shale
16 gas extraction via horizontal drilling and
17 hydrofracking, in particular, because of its
18 potential impacts on New York's water supply. As
19 we all know, DEC recently issued the complete
20 version of its SGEIS, which is over 1,000 pages.
21 Riverkeeper has not yet had an opportunity to
22 review this document in full, and will be doing so
23 in the coming months with a team of technical
24 experts. Accordingly, we had focused our
25 testimony today on our criticisms to DEC's

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2 procedure and a few of our preliminary reactions
3 to the document itself, which I'll try to keep
4 short since they've already been raised today,
5 those two concerns are the infrastructure and the
6 waste water. Chief among our procedural concerns
7 is that DEC continues to rush this process,
8 seriously limiting the public's opportunity to
9 express their legitimate concerns and have those
10 concerns actually influence DEC's decision making
11 regarding hydrofracking in New York. DEC
12 indicated in its press release announcing the
13 September SGEIS that it will issue draft
14 regulations governing shale gas extraction and
15 fracking sometime in October, with Commissioner
16 Martens stating "It makes sense to move forward
17 with the SGEIS and regulations that codify these
18 measures together, and hold simultaneous public
19 comment periods and hearings." However, a core
20 principal of the State's environmental review
21 process is that DEC finalizes impact statements
22 such as the SGEIS after incorporating public
23 input, and prior to drafting regulations so that
24 the impact statement findings inform the
25 regulatory process. By issuing regulations before

1
2 the environment review process is complete, DEC is
3 depriving New Yorkers of the opportunity for their
4 comments to be considered in the development of
5 these draft regulations. Equally disturbing, DEC
6 has still not committed to wait to begin
7 permitting until regulations have been finalized.
8 If DEC is truly committed to the principal that
9 mitigation measures and the regulations that
10 codify them must go hand-in-hand, then why move
11 forward with issuing permits before regulations
12 are in place. This is a backwards approach. DEC
13 should process permit applications only after it
14 promulgates detailed regulations that adequately
15 protect against the environmental, public health
16 and safety risks associated with horizontal
17 drilling and hydrofracking. Finally, Riverkeeper
18 remains concerned with the length of the public
19 comment period, which began September 7th and will
20 conclude December 12th, less than 90 days from
21 now. This is an improvement over the original 60
22 day period for public review proposed by DEC,
23 which Riverkeeper, its members and its
24 environmental colleagues, pushed DEC to extend.
25 However, DEC now expects the public to, at the

1 same time, review and comment on draft regulations
2 that will not be released until sometime in
3 October. Riverkeeper believes this rush to
4 complete the regulatory review process to pave the
5 way for permitting as soon as possible as unfair
6 and unreasonable to the public. The public
7 deserves a separate comment period to review and
8 comment on this critical update of 40 year old
9 drilling regulations, most of the regulations have
10 not been updated since 1972. DEC should offer a
11 comment period for the SGEIS and then issue draft
12 regulations giving those their own comment periods
13 and hearings. We also wanted to say a few words
14 on staffing. DEC declares in an August 16, 2011
15 report to the State panel on fracking, that shale
16 gas extraction in the State will only be
17 successful, which it defines as safe,
18 environmentally protective, and economically
19 beneficial, through a "vigilant, environmental
20 regulatory program," backed by staff and other
21 resources to ensure, "Rigorous permitting
22 inspections and compliance." In that same report,
23 DEC admits that it does not have the necessary
24 resources to accomplish those goals, and presents
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2 in significant detail its staff needs. It needs
3 140 new positions in the short term, and over 200
4 new positions in the first five years. DEC also
5 admits that it does not have the funds to hire new
6 staff, and is therefore counting on the next state
7 budget process. DEC projects that even if it is
8 completely successful in achieving its budget
9 request in this fiscal climate, it will likely not
10 have the necessary staff in place before January
11 2013, at which time it will begin the time
12 consuming process of training that new staff. In
13 light of DEC's own statement of its staff needs,
14 and the time required to meet those needs, how can
15 it be possibly ready to begin issuing permits in
16 the spring of 2012? DEC should not rush the
17 permitting process and begin accepting permit
18 applications until it has these necessary
19 resources in hand, and fully trained staff in
20 place. To do so otherwise invites duplicating
21 Pennsylvania's failure to adequately regulate
22 hydrofracking. And as I mentioned in the
23 beginning, Riverkeeper is working over the next
24 few months to develop our own comprehensive set of
25 formal comments on the SGEIS itself, while

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2 advocating DEC to address the procedural flaws
3 I've just identified. In the meantime, our two
4 preliminary criticism are the two that have been
5 mentioned. First, as we now know, much of the New
6 York City water supply infrastructure falls
7 outside the City's watershed itself, and this
8 would be subject to this 1,000 foot height and
9 review. We believe that it is crucial for DEC to
10 prohibit drilling anywhere near all infrastructure
11 that falls outside watershed limits, to adequately
12 protect the drinking water supply, and we, in the
13 past, were support--in support of the seven mile
14 buffer. And still are. And we also, as has
15 already been discussed, believe that the SGEIS
16 remains unacceptably vague on how the tens of
17 millions of gallons of toxic waste water that
18 will, that will be produced in New York, if
19 fracking operations will move forward, will be
20 disposed of without contaminating New York's water
21 in the same way that Pennsylvania's have been. In
22 conclusion, it remains Riverkeeper's position that
23 DEC should not move forward with permitting
24 fracking unless and until it can demonstrate that
25 the health and environment of New Yorkers will be

1
2 protected. And again, Riverkeeper thanks the City
3 Council for the opportunity to participate in
4 today's hearing, and for the important role that
5 City Council continues to play on the issue of
6 hydrofracking in New York State. We look forward
7 to continuing to work with the Council on this
8 area of significant environmental concern. Thank
9 you.

10 CHAIRPERSON GENNARO: Thank you.
11 Thank you for being here. And I'm very grateful,
12 as always, that Riverkeeper has been at the
13 forefront of all kinds of issues relating to
14 water, as here, and I look forward to continuing
15 to work with them. And also, NYPIRG and also the
16 Environmental Working Group, you guys have been
17 terrific, and hm ... I guess as a question for
18 NYPIRG and Riverkeeper, they're like the, you
19 know, local advocate groups that are kind of like
20 on the ground here or whatever. There is--thank
21 you--there is kind of like playing the game as
22 outlined by the State in its process, or there is
23 trying to get some sort of game changing thing
24 that says, "Look, we, we don't really want you
25 doing like the regulations at the same time as the

1
2 EIS." And I know that, you know, you can only
3 speak for your own groups, but is there, you know,
4 any kind of consensus that like the environmental
5 groups, perhaps like the local ones, who are maybe
6 even at the - - like the Environmental Working
7 Group, which is, you know, national, to, you know,
8 make some kind of declaration that we're just not
9 going to play the game this way, because the way
10 the game is set, by, you know, doing the
11 regulations, at the same time as the, as the
12 study, that just, that just doesn't work for us.
13 And we're not going to play the game that way.
14 Like we'll put it in our comments, but we want you
15 to do it differently. And so, is there any kind
16 of like organized movement like within the
17 environmental community to, you know, to pull like
18 a Martin Luther or whatever his name was, bang the
19 things on the door, or whatever. Was it Martin
20 Luther, who was that, was that who it was? Yeah,
21 it was Martin Luther, yeah, nailed to the door.
22 Is there any, you know, is there that kind of
23 sentiment in the environmental community, or like
24 within your group, or you know, you guys all
25 chitchat, so you know--

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CATHLEEN BREEN: We do talk.

CHAIRPERSON GENNARO: Yeah, so,
fill me in.

CATHLEEN BREEN: Thank you. Well,
as you know, the environmental community,
including NYPIRG and Riverkeeper and many others,
advocated that there be formal rulemaking for this
process.

CHAIRPERSON GENNARO: Right.

CATHLEEN BREEN: And I think that
the DEC's stance has been a little sly and, you
know, maybe they perceived it as Solomon-like, and
sort of splitting the baby, and putting out the
permits while putting out the regulations,
rulemaking at the same time. And having them run
concurrent. However, unlike Solomon, this was,
this is neither wise nor just. And it's something
that I know that is very much of a concern and as,
as Mackenzie pointed out in her testimony, this is
something that Riverkeeper is taking a hard look,
as other groups, including NYPIRG, are doing. As
to an organized boycott of that, however--

CHAIRPERSON GENNARO: Don't
boycott, just you know--

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CATHLEEN BREEN: They--certainly--

CHAIRPERSON GENNARO: More like a manifesto, or whatever, whatever word I'm trying to grasp, just some sort of, you know, some kind of consensus that--and I'm not saying I'm not going to be a part of it, but I mean ... previous witnesses have told me that, that, that folks need to start, you know, talking and kind of putting it to the State and to say, to say like, you know, like, "Hey, what the heck?"

CATHLEEN BREEN: I--I couldn't agree, I couldn't agree more.

CHAIRPERSON GENNARO: And I'm just wondering if there is sort of like a "Hey, what the heck?" you know, movement among, you know, people in the environmental community, that we could, you know, like jointly say, "What the heck?"

CATHLEEN BREEN: Absolutely.

CHAIRPERSON GENNARO: Right.

CATHLEEN BREEN: Certainly, I think everyone is really trying to rally the troops, truly, really trying to make sure that everyone in the State understands what the ramifications are.

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2 And one of the key points I think here today is
3 for New York City, not just that the
4 infrastructure is at risk, but that New York City,
5 as the, you know, the entity that it is, has a
6 real opportunity to weigh in on what is the
7 biggest environmental issue facing the State in,
8 in many years. And that is hydrofracking, and the
9 impacts it'll have across the State in the areas
10 where people's water supplies will be impacted.
11 And I think that everyone will be commenting very
12 vigorously on all of the points on the SGEIS, and
13 in particular on the rulemaking, because it is not
14 the process that it should be doing, the DEC
15 should be doing. And it is just, in keeping with
16 that fast tracking the process--

17 CHAIRPERSON GENNARO: Right.

18 CATHLEEN BREEN: --you know,
19 rushing it out the door.

20 CHAIRPERSON GENNARO: But, yeah,
21 yeah, but here's my thought. 'Cause when other
22 things have been on the agenda, like what, you
23 know, whether it's something like congestion
24 pricing, there's a whole movement form that was,
25 you know, there was full page ads in the times,

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2 there was like ads on buses. It was like, there
3 was like a whole thing, where, you know, people
4 like me, like had to get on board or whatever.
5 And there was this whole campaign, a movement,
6 thank you, a movement that was really, that you
7 know, kind of coalesced around the issue. And I
8 don't quite see that here, yet. We have people
9 that are very concerned, but--and with regard to
10 the, to those kinds of movements and campaigns,
11 like who knows where they got their money from or
12 whatever, but it's just something that popped into
13 my head, as I was sitting here.

14 CATHLEEN BREEN: No, no, I think
15 it's a very important point.

16 CHAIRPERSON GENNARO: I mean, we
17 should make a note to staff, we should, I don't
18 know--

19 CATHLEEN BREEN: Well, I can tell
20 you from NYPIRG's perspective, that for our 20
21 campuses across the State, one of the top issue
22 that our students are working on is, is on this
23 very issue, is making the voices heard, of all the
24 students. And this is, if you think about it,
25 this is the generation that's going to live with

1
2 the mistakes that we're making right now. And one
3 of the things that we're really pushing on all of
4 our campuses, is that we, as many students as we
5 can to get involved in this issue, to comment on
6 this issue, so that DEC and Governor Cuomo hears
7 from New Yorkers across the State. I think it's
8 critical that people weigh in on this, and I think
9 that, and that's one of the strongest campaign
10 that I think we're holding on our campus, and
11 it'll be something that we think that, as other
12 campuses are, other entities are doing, as well.

13 CHAIRPERSON GENNARO: Right. But
14 people are weighing, but you know, weighing as
15 part of the rules that have been, you know, pretty
16 much defined, by the State.

17 MACKENZIE SCHOONMAKER: I just
18 wanted to add, sorry--

19 CHAIRPERSON GENNARO: Okay.

20 MACKENZIE SCHOONMAKER: --from
21 Riverkeeper's perspective, as well, this is a huge
22 issue for Riverkeeper. We actually had a meeting
23 with DEC on this very point just this very week,
24 and are advocating for this. We do have an action
25 alert out on this.

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2 CHAIRPERSON GENNARO: You can get a
3 meeting with DEC, which is more than I can get,
4 but go ahead, yeah. [laughter]

5 MACKENZIE SCHOONMAKER: We have an
6 action alert on this issue, I believe, and I don't
7 want to speak for Eric, but I believe NRDC is also
8 preparing a letter on this issue. It's an issue
9 we would encourage the City to weigh in on. And--

10 CHAIRPERSON GENNARO: About
11 changing the game, so to speak, right?

12 MACKENZIE SCHOONMAKER: Yeah.

13 CHAIRPERSON GENNARO: That we don't
14 want to play it this way.

15 MACKENZIE SCHOONMAKER: Exactly.

16 And--

17 CHAIRPERSON GENNARO: Okay.

18 MACKENZIE SCHOONMAKER: As you
19 mentioned, we all do talk, and I think--

20 CHAIRPERSON GENNARO: Right.

21 MACKENZIE SCHOONMAKER: --we're in
22 the early stages of coming up with a more joint
23 push on this. So, it is something you will see a
24 push on, I just wanted to add that.

25 CHAIRPERSON GENNARO: Let me say

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2 the following, this is a legal question, anyone
3 feel free to jump in. So, let's say the State
4 does that, "So okay, you know what, we put this
5 thing out and we say we're going to do this, and
6 we say we're going to have this process, by which
7 we did the rules and finalize this document, all
8 at the same time; but now we've like changed our
9 mind, and we're going to do something else, and
10 we're going to have this other process, and it's
11 going to take longer." Are they in any way
12 facing, you know, some kind of legal exposure for
13 sort of like changing the rules that they
14 themselves have set out? Are people from the
15 drilling industry going to say, you know, "Now
16 tell them like what the heck you're doing?" And
17 would they be subject to some sort of, you know,
18 legal issues as a result of doing that? I don't,
19 I have no idea of the answer to that question, but
20 I'm just wondering that if we get what we want,
21 they said, "Okay, we're going to have a whole new
22 process now, and we're going to take longer time,
23 and we're going to do like this--" in a sequence
24 that makes more sense. Are they going to get
25 pushback, you know, from people that want to

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2 advance fracking? And does this pushback have,
3 you know, legal issues that are associated with
4 it, that are like problematic for the State?

5 MACKENZIE SCHOONMAKER: I think--

6 CHAIRPERSON GENNARO: I don't know.

7 MACKENZIE SCHOONMAKER: --get
8 pushback, but it wouldn't be legal pushback. From
9 Riverkeeper's perspective, they aren't doing what
10 they're legally supposed to do now. How it always
11 works is you do the environmental impact
12 statement, you finalize it, and then that impact
13 statement informs the regulations. They're doing
14 something completely different here.

15 CHAIRPERSON GENNARO: Right, okay.
16 So, so they could do that and get away with it,
17 and justify it, and there you have it.

18 MACKENZIE SCHOONMAKER: Yes.

19 CHAIRPERSON GENNARO: Okay.

20 CATHLEEN BREEN: And Chairman
21 Gennaro, I'd just like to point out from NYPIRG's
22 perspective, one of the key points that we're
23 making is that the draft, the revised draft SGEIS
24 is, did not fulfill the requirements of Executive
25 Order 41, and did not take a look, a hard look at

1
2 all of the environmental impacts, and it did not
3 do the public health assessment, which is absurd
4 considering this will have impacts on people's,
5 you know, health. And so, we are really calling
6 for this to be taken back to the drawing board.
7 DEC needs to have science direct this and not
8 politics.

9 CHAIRPERSON GENNARO: Okay, that's,
10 I could not have said that better myself. Thank
11 you. And I guess my last comment or question
12 would be to Dusty, you guys've been pretty busy
13 putting out information and studies and all that,
14 and while I've, you know, read about them, I'm not
15 actually sure that I have them. And so, if you
16 could provide those to the Counsel to the
17 Committee, that would be, that'd be great, Samara,
18 right here. And I thank you for coming up for
19 being with us today. And, and I thank you for
20 coming down, for being with us today. And I thank
21 you for coming over to be with us today [laughs]
22 from Murray Street, so down, up, over, you know,
23 and that's how we do it here at the City Council.
24 Okay. Thanks very much, this has been a really
25 great panel. Thank you, appreciate that. And

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2 we're going to call the next panel, as I had
3 mentioned, there's a representative from Borough
4 President Stringer, who is here; Wes Gillingham on
5 behalf of Catskill Mountain Keeper; Michael LeBron
6 of Damascus Citizens; Joe Levine, of New York H₂O
7 and other organizations. And we're going to--and
8 the next panel [background noise] okay. And we
9 have a representative of the Gray Panthers, looks
10 like Shao Lin; and Shuho [phonetic]; and I have to
11 be very careful because this address looks like
12 it's in my district, I think this person is my
13 constituent. So, how do you like that. Okay.
14 Okay, great. I'll be on my best behavior, I
15 promise. From Food and Water Watch, Eric Weltman;
16 Hilary Baum from Food Systems Network, New York
17 City; and Alex Tuffle, or I can't really make out
18 the first name, from United for Action.
19 [background comment] I just have this David
20 [background comment] Okay, so, whoever wants--
21 okay, what we [background comment] Well. And
22 [pause] Then why don't we have a panel after this
23 one that is the folks from United for Action.
24 Okay? 'Cause that way, so the next panel will be
25 three. Ms. Lynne, Mr. Weltman and Ms. Baum.

1
2 Okay, so we'll do that as the next panel. Then,
3 United for Action will be after that. How about
4 that? Okay? And thank you for your patience,
5 appreciate you all being here. And counsel will
6 swear in the panel, and then we can commence.

7 COUNSEL: Please raise your right
8 hands. Do you swear or affirm to tell the truth,
9 the whole truth and nothing but the truth today?
10 [pause]

11 CHAIRPERSON GENNARO: Just one
12 minute, okay? [pause, background noise] Okay,
13 the last panel we did from my right to my left,
14 we're going to do it from my left to my right, and
15 we'll start with, we'll start with Joe. You're
16 on. Joe, grateful to have you hear, do you know,
17 you got to go right up close to the microphone,
18 and just say your name for the record.

19 JOE LEVINE: Can you hear me? Does
20 that work?

21 CHAIRPERSON GENNARO: Yeah. We got
22 you now. And thanks for being here.

23 JOE LEVINE: So, thanks--

24 CHAIRPERSON GENNARO: And, and I
25 just want to make sure that I have your, have the

1
2 statements of this panel. I have ... okay, I got-
3 -and then why don't you sort out the--okay. Okay,
4 you know what, Joe, I, I've got your statement,
5 I'll worry about the other ones when I get to
6 them, okay.

7 JOE LEVINE: Good.

8 CHAIRPERSON GENNARO: Thank you.

9 JOE LEVINE: So, thanks for holding
10 the hearing--

11 CHAIRPERSON GENNARO: Got it.

12 JOE LEVINE: --and we appreciate
13 everything this Committee's been doing. I want to
14 read--which isn't included on my statement there--
15 a conclusion from, from the SGEIS draft, on
16 Chapter 6, page 39, and the conclusion is, "The
17 Department finds that the proposed high volume
18 hydraulic fracturing operations, although
19 temporary in nature, may pose risks to primary and
20 principal aquifers that are not fully mitigated by
21 measures identified in the SGEIS. The proposed
22 activity could result in a degradation of drinking
23 water supplies from accidents, construction
24 activity, runoff and surface spills. Accordingly,
25 the Department concludes that high volume

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2 hydraulic fracturing operations within the primary
3 and principal aquifers pose the risk of causing
4 significant adverse impacts to water resources, as
5 discussed in Chapter 7. Standard mitigation
6 measures may only partially mitigate such impacts,
7 such partial mitigation would be unacceptable due
8 to the potential consequences posed by such
9 impacts. So, with that being said, they intend to
10 drill. That of course is referencing the New York
11 City water and Syracuse and certain other areas,
12 but nonetheless there are risks and we're going to
13 drill anyway. That's from the--

14 CHAIRPERSON GENNARO: Now, Joe
15 that--

16 JOE LEVINE: --draft.

17 CHAIRPERSON GENNARO: That's not
18 part of your--

19 JOE LEVINE: I just added that.

20 CHAIRPERSON GENNARO: That's not
21 part of the statement, you just read that.

22 JOE LEVINE: Right.

23 CHAIRPERSON GENNARO: Okay, okay.

24 JOE LEVINE: Yeah. I'll give it to
25 you, though.

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CHAIRPERSON GENNARO: Thank you.

JOE LEVINE: And I--

CHAIRPERSON GENNARO: We have all the stuff, but please, yeah.

JOE LEVINE: Okay. And I will read this, this part from, this is on page eleven of the executive summary. I was going to focus on just one aspect because there's so many aspects to focus on. And I was interested in the faults and fractures and migration issues--

CHAIRPERSON GENNARO: Right.

JOE LEVINE: --that were covered a little bit before. But you know, what's amazing about it is that they've essentially come to the conclusion, I won't even read that, and save some time.

CHAIRPERSON GENNARO: Right.

JOE LEVINE: I've come to the conclusion that it's not an issue. That, and I'll, I will read it here. Chapters five and six contain analysis that demonstrate that no significant adverse impact to water sources is likely to occur due to underground vertical migration of fracturing fluids through the shale

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2 formation. The developable shale formations are
3 vertically separated from potential freshwater
4 aquifers by at least 1,000 feet of sandstone and
5 shales in moderate to low permeability. That
6 shales must be hydraulically fractured to produce
7 fluids is evidence that these types of rock
8 formations do not readily transmit fluids. The
9 high salinity of native water in the Marcellus is
10 evidence that fluid has been trapped in the pore
11 spaces for hundreds of millions of years, implying
12 that there is no mechanism for discharge of fluids
13 to other formations. Hydraulic fracturing is
14 engineered to target the prospective hydrocarbon
15 producing zone. The induced fractures create a
16 pathway to the intended well bore, but do not
17 create a discharge mechanism or pathway beyond the
18 fracture zone where none existed before.

19 Accordingly, there is no likelihood of significant
20 adverse impacts from mitigation of fracturing
21 fluids. So, there's nothing in that statement
22 that is consistent with actually the science,
23 which is the fracturing science. In fact, I think
24 they've, they'd even done mapping, which I have,
25 this is from, from, from the, this map here is

1
2 from the SGEIS, and it shows, sorry it's so small
3 here, it shows--

4 CHAIRPERSON GENNARO: It's all
5 right.

6 JOE LEVINE: This is sort of their
7 fracture map. And fractures and faults--

8 CHAIRPERSON GENNARO: Okay, Joe, I
9 just, we just need you for the purposes of the
10 record, 'cause the, all the testimony's being
11 recorded, and it's going to be transcribed, so you
12 have to make sure you speak into the mic.

13 JOE LEVINE: Okay. Just sort of an
14 idea of what kind of scientific investigation is
15 going on, and what their consultants are doing,
16 this is the map that they're using for showing
17 where the fractures are in New York State. It's
18 actually an outdated map. I don't know what the
19 date is when it's from, actually, but this is
20 actually a map of the fractures that are in New
21 York State, this is just a Southern tier. So,
22 there's very sophisticated mapping that has to do
23 with faults and fractures and fissures--

24 CHAIRPERSON GENNARO: Right.

25 JOE LEVINE: --and joints, where

1 migration is likely to occur in, in the Marcellus
2 Shale. So, it's really ridiculous that they're
3 basing their information on outdated data. And
4 are assuming that there's no migration of fluids
5 during the fracking operation. In fact, I have
6 here, and they're referenced in there, about ten
7 or twelve reports, and all of those from
8 independent scientists, hydrogeologists,
9 geologists, etc., have concluded that there is
10 migration from fracking, and it's not only been
11 reported on, it's actually occurred, and they've
12 documented it. So fracking and migration from
13 fluids into remote areas, from the fracking
14 operation, is in fact occurring. And it can reach
15 out aquifers by way of that mechanism. This is
16 just one issue there. There are, so there are
17 numerous detailed studies that document that.
18 The, the interesting thing about concluding right
19 off the bat, that fracturing won't, the fluids and
20 gases won't migrate, as a result of that, and by
21 the way, there's the natural fractures and
22 fissures, and then there's also manmade ones that
23 occur, from the fracking operation. So it becomes
24 exacerbated, so the migration can occur. But the
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2 reason that--and this is basically something
3 that's written by industry, not really by the DEC,
4 but the reason that they try to eliminate that, is
5 because there's nothing they could do about it.
6 They can make a better well casing, which I don't
7 think could be done anyway. The industry, the
8 Society of Petroleum Engineers reports that they
9 don't really have well casings together yet, and
10 don't have that problem solved. Many of the, you
11 know, geological organizations understand that for
12 drilling. They could have contained pits or
13 something like that, and keep 'em in vessels and
14 tanks. So, they, they could do other mitigation
15 things, but one of the things they can't mitigate
16 at all is how fluids travel beneath the ground.
17 So the first thing they do in here is say, "It's
18 not an issue, it can't happen." Then they don't
19 have to, then they don't have to address it. So,
20 it is the thing that's been documented, that can
21 happen, and they can't do anything about it. This
22 has happened also in the Department of Energy's
23 report. They've come to the conclusion that
24 fluids won't migrate underground, and it's the
25 same thing.

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2 CHAIRPERSON GENNARO: Well,
3 normally I save my comments for the end, but there
4 would for--there could for example, and I think
5 the testimony of the, of the USGS gets to this, is
6 that there are, you know, better and, you know,
7 types of circumstances to frack under these, you
8 know, kinds of geological circumstances with
9 regard to absence of fractures, like with regard
10 to, you know, certain kinds of rocks. And there
11 are other, you know, kinds of circumstances where
12 there's, you know, much more prone to be
13 migration. But you know, not that they could
14 never do anything about it, but this is not, you
15 know, part of the planning now that you have to
16 look at the local geological circumstances and
17 permits will not be permitted. Or denied, you
18 know, based on like the wrong kind of subsurface
19 geological conditions. So, theoretically you
20 could do something about it. I think they're just
21 choosing not to. I just wanted to put my little
22 two cents in, like as a geologist saying that.

23 JOE LEVINE: Right, and--

24 CHAIRPERSON GENNARO: You can't
25 change what's down there, but you can see what's

1
2 down there, and you can figure out, you know, what
3 kind of set of circumstances subsurface would be,
4 you know, better or worse for this kind of
5 activity.

6 JOE LEVINE: Right, they could map
7 the faults for instance.

8 CHAIRPERSON GENNARO: Right, right.

9 JOE LEVINE: But no matter what,
10 they're dealing with what Hazen and Sawyer called
11 "brittle structures" that are naturally fractured
12 and you have to blow them up in order to get the
13 gas from them. So, that's a given under any
14 circumstances.

15 CHAIRPERSON GENNARO: Right, right.

16 But--

17 JOE LEVINE: That's the migrate--
18 and I'm not a geologist, this is just from the
19 reports.

20 CHAIRPERSON GENNARO: Even given
21 that, yeah, but--even given that, there could
22 certainly be more attention paid to, you know,
23 subsurface conditions that are more likely or less
24 likely to deal with problems that nobody wants to
25 deal with.

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JOE LEVINE: Correct.

CHAIRPERSON GENNARO: But anyway,
but, but--

JOE LEVINE: Right.

CHAIRPERSON GENNARO: Oh, sorry.

JOE LEVINE: Yeah.

CHAIRPERSON GENNARO: Is that the
end of your statement? Okay.

JOE LEVINE: Yeah, that's the end.

CHAIRPERSON GENNARO: Okay.

JOE LEVINE: I mean, I, I would
also just mention a couple of things. They're,
they're still exempt from federal regulations.
So, there's, including how waste is designated, so
it's not hazardous waste, it's just industrial
waste, which means they could take it to certain
places that, the same waste under other
circumstances wouldn't be able to go to. And
there's no health impact assessment, which is just
totally absurd since it is a public health issue,
maybe even more so than an environmental issue.

CHAIRPERSON GENNARO: Thank you,
Joe. As always, right on the money, and I really
appreciate you being here today, and your ongoing

1
2 advocacy. And you can be sure that Governor Cuomo
3 knows your name, too. Okay. And the next
4 witness, okay, I have a couple of statements here.
5 And you are--?

6 SARA VALENZUELA: I'm Sara
7 Valenzuela, I'm testifying on behalf of--

8 CHAIRPERSON GENNARO: Oh, okay,
9 great, okay.

10 SARA VALENZUELA: --Borough
11 President Scott Stringer.

12 CHAIRPERSON GENNARO: And I have
13 the statement, and thank you for being here, and--

14 SARA VALENZUELA: Thank you very
15 much.

16 CHAIRPERSON GENNARO: I thank Scott
17 for sending a representative.

18 SARA VALENZUELA: Thank you,
19 Chairman Gennaro, and Members of the Committee on
20 Environmental Protection, for the opportunity to
21 testify at this important hearing. Many in
22 attendance today, as we've heard, have spent the
23 better part of three years, and some their whole
24 lives, weighing the risks of hydraulic fracturing
25 against the perceived benefits of New York State

1
2 and New York City. We've witnessed the litany of
3 leaks, spills, contamination associated with
4 hydraulic fracturing, expand dramatically,
5 especially in Pennsylvania. We've also seen
6 conflicting projections of the overall economic
7 and environmental benefits that hydraulic
8 fracturing will bring to New York. In other
9 states, many of these rosy economic projections
10 made by the government and outside experts have
11 never been materialized. Despite these problems
12 and the inconsistencies, the New York State
13 Department of Environmental Conservation appears
14 to be set on approving the use of hydraulic
15 fracturing in our State on an expedited timeline.
16 Let's be very clear about the situation that we're
17 currently in. Hydraulic fracturing in New York
18 will be a roll of dice. Borough President
19 Stringer strongly believes that New York State
20 should wait until shale gas drilling technologies
21 become more environmentally reliable, before we
22 embark on hydraulic fracturing anywhere within our
23 State lines. However, if the DEC does insist on
24 pushing the SGEIS to completion, against the will
25 of tens of thousands of New Yorkers, it is our

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2 responsibility to ensure that stringent
3 protections will be put in place to safeguard the
4 City unfiltered water supply. Governor Cuomo
5 should be commended for his recent decision to
6 allow a New York City hearing on hydrofracking, as
7 part of the public comment period on the new
8 SGEIS, and for taking the steps to ban
9 hydrofracking within the immediate confines of the
10 City's vast watershed. But additional critical
11 safeguards still need to be put in place. Most
12 significantly, the revised draft SGEIS does not,
13 in the revised draft, SGEIS does not provide
14 adequate protection for New York City's vast
15 subsurface water delivery infrastructure. A 1,000
16 foot buffer around the tunnels and aqueducts that
17 delivered unfiltered water from the Catskill
18 Delaware Watershed is grossly insignificant. If
19 we get--insufficient. If we get this wrong, we
20 risk poisoning our water and in turn the millions
21 of people who drink it. We would also be opening
22 the door to an EPA mandate requiring the
23 construction of a \$10 billion water filtration
24 plant, an additional burden to our pocketbooks.
25 The potential costs of such an inappropriately

1 narrow buffer zone, to government and to private
2 citizens, far outweigh the benefits. We care
3 about, if we care about the wellbeing of the
4 City's water supply, we should widen the buffer
5 zone to at least seven miles, as recommended by
6 outside experts. In addition to the Borough
7 President's testimony before you today, he will be
8 submitting additional testimony on the technical
9 merits of the revised draft of SGEIS before the
10 expiration of the DEC's commenting period. For
11 now, however, he would like to make the following
12 calls to action for the immediate term. First,
13 the DEC should extend the comment period on the
14 revised draft SGEIS from 96 to 180 days. It is
15 unrealistic for the DEC to expect concerned
16 citizens to read a 1,500 page technical document
17 and make sound public comments without a
18 sufficient amount of time for review. Secondly, I
19 strongly urge Mayor Bloomberg and the New York
20 City DEP to endorse the recommendations made by
21 city consultants related to subsurface
22 infrastructure buffer zones. These pronouncements
23 should be provided in hearings like this one, and
24 in other public forums so that the New York City
25

1 residents fully understand what is at stake.
2
3 Finally, the Borough President calls on every
4 person at this hearing to join him at the DEC's
5 public hearing in New York City this November. We
6 need every concerned New Yorker to participate in
7 that hearing, and send a clear message to Albany:
8 "Keep our water clean and keep our citizens safe."
9 Thank you very much, Chairman Gennaro, for the
10 opportunity to testify. The Borough President
11 would like to commend you on your continued
12 advocacy on the issue, and we look forward to
13 working together with you and other members of New
14 York City Council to kill the drill in New York.

15 CHAIRPERSON GENNARO: Thank you,
16 thank you. And Wes, okay, do I have your
17 statement here?

18 WES GILLINGHAM: Actually, you
19 don't, I'm going to have to submit that--

20 CHAIRPERSON GENNARO: Okay. Oh,
21 fine, okay, great, I'll--

22 WES GILLINGHAM: --tomorrow, fax,
23 with some backup to--

24 CHAIRPERSON GENNARO: Okay.

25 WES GILLINGHAM: --what I'm about

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to say.

CHAIRPERSON GENNARO: I'll take my glasses off and just relax, then.

WES GILLINGHAM: [laughs] So, I'm going to speak to some of the geologic issues that have been talked about so far today. And then I also want to take a moment to talk about the process, as we've been going through this. And we've heard some excellent testimony on the geology around New York City's infrastructure, and I concur with the comments about the inadequacy of these recommendations. What we're facing here is a document that's, that's been put out before us to give public comment, and there's more multiple examples of things that comments were made in the scoping process, comments were made in the first draft of the SGEIS, and people are completely irate today when they see this copy that we have now. I'm going to emphasize the things that Joe testified to, and in the document it says, "extremely unlikely" the possibility of faults or fractures could connect the shale with overlying formations. Such a claim should not be made without any reference or supporting data. They do

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2 not have that. They have refused to produce that.
3 That was a suggestion in the scoping comments, and
4 that was the suggestion when we made comments on
5 the SGEIS the last time. And I want to tell you a
6 story, you will appreciate this as a geologist.
7 When Catskill Mountain Keeper and NRDC, Earth
8 Justice and Riverkeeper hired experts on the last
9 round of comments. We had a petroleum geologist
10 from Alaska, and a hydrogeologist from Nevada.
11 The hydrogeologist is the one who has expertise
12 with mining issues and specifically underground
13 contamination plumes. They got into a discussion
14 on one of our conference calls as we were
15 outlining what the comments were, and the
16 hydrogeologist was saying, "This stuff is going to
17 come up. If that fracture reaches the sandstone,
18 it will make its way into the aquifer." And the
19 response from the petroleum geologist was, "A good
20 fracker doesn't frack out of zone." [laughter]
21 Does that make you feel better?

22 CHAIRPERSON GENNARO: Yeah, it
23 sounds like a good slogan, you know [laughter] I
24 don't, I don't think I'd bet the safety of my
25 water supply on it, but--

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WES GILLINGHAM: Exactly.

CHAIRPERSON GENNARO: It sounds cool.

WES GILLINGHAM: So, what we've had is, you know, two-and-a-half years ago, I went to the Hudson Mohawk Geologic Symposium. The curator of the New York State Museum, Dr. Tawdry Smith, was doing a presentation. At the time this was focused on the Marcellus Shale. Every--it was, it was an industry symposium, there were geologists, and people from industry, and Williams, and Schlumberger [phonetic], they were all there. And his presentation was not on the Marcellus, his was, "Hey, everybody's coming here for the Marcellus, but don't forget about the Utica." And he talked about the problems, the potential problems with the Marcellus Shale. And one of which was, was the highly fractured nature of the formation. And he used an example from the Barnett Shale. There were places in the Barnett Shale where instead of using that famous three to five million gallons of hydraulic fracturing fluid, they were, they created a situation where they were pumping, three, five, eight, up to

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2 twelve million gallons of chemicals, water and
3 sand into the formation, and they were not able to
4 bring it up to pressure and have a satisfactory
5 fracture. Anybody with a half a brain knows that
6 that means that stuff is going where they don't
7 know it's going. So that's talking about
8 horizontal and vertical migration. But if it's,
9 even if it's just horizontal, that's exactly what
10 people were addressing earlier, with buffer zones
11 not being adequate. The other thing that, that
12 most people don't realize when they talk about
13 "It's so far down there, and it's not, it's not
14 going to come up, there's all these layers,"
15 industry for years, since the beginning of
16 conventional gas drilling, have used migration to
17 find conventional pools of gas. They go out and
18 they find places where they look at a map like Joe
19 had, where the fractures are, they go out to those
20 places, they do soil tests and water tests, and if
21 they find methane in those soil tests, and if it's
22 isotopic methane that comes from a deep formation,
23 they know that there's, that there's methane that
24 has migrated from a lower formation up into a
25 pocket somewhere. And then they have to start

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2 punching holes looking for the pocket. Industry
3 knows the stuff movies, and it moves naturally
4 without casing failure. There's, there's a whole
5 series of thing, and one of the things, I just
6 want to emphasize, 'cause I haven't heard anybody
7 speak to it, and I'm not going to spend a lot of
8 time on it, 'cause this hearing is getting really
9 long, and there's a lot of people that want to
10 speak. But there's the whole issue of air
11 contamination and compressor stations. Right now
12 there's two compressor stations that are up for
13 building in Orange County, you know, an hour from
14 here. New York City has enough problems with air
15 pollution. And we're about, between Pennsylvania
16 and what Pennsylvania is allowing, and then what
17 we're talking about here in New York, we're
18 talking about serious, serious problems for New
19 York City. This whole process is flawed.
20 Catskill Mountain Keeper is one of a handful of
21 organizations that started sounding the alarm
22 about three years ago. We've, we've gone through
23 now two Governors and we've given the Governors
24 and the DEC the benefit of the doubt, that they
25 will be alerted to scientific evidence and respond

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2 in an ethical fashion. What we have seen is not
3 that. Since Mr. Cuomo has been in office, he, he
4 made the appointment of a well-respected champion
5 of the environment, and put him at the helm of the
6 DEC. But immediately after Joe Martens was in the
7 DEC, he was making public statements, "The DEC is
8 going to take as long as it needs to get this
9 right." Well, what did we see? We saw the
10 administration push that through, so that we got
11 the, the thing earlier than we all expected. The
12 next thing that happened is he put in the DEC one
13 of the best seeker lawyer sin the State, to build
14 a legal firewall around the DEC. He's pressured
15 the DEC to put the SGEIS out faster. And the
16 document was pushed through with the announcement
17 of an advisory panel. As the advisory panel has
18 unfolded, what we've seen is them putting
19 resources on how to make this process go forward,
20 how to make the permits, what kind of, what money
21 do we need. And what we, why this is happening,
22 is because so Cuomo can propose resources in the
23 upcoming budget. This is outrageous, it's
24 completely outrageous that this is being discussed
25 before community impacts. Socioeconomic impacts,

1 health impacts, the things that people have
2 already testified, there's no realistic plan for
3 waste water. Their limp claim that there's
4 cumulative impacts placed throughout the document,
5 total disregard for the subsurface issues. As a
6 geologist, you know a propo--any kind of proposal
7 that has a geologic standard across the entire
8 state, is just ludicrous. I mean, you've just
9 substantiated that in your comment recently. This
10 is a real slap in the face to you, Mr. Gennaro, a
11 slap in the face to the senators, and the
12 Assemblymen and women of this State. And is a
13 spit in the eye of New Yorkers that believe that
14 we had a system that would protect our resources
15 and our people. I applaud this panel for the work
16 that you've done over the last three years, and
17 standing up to Mr. Cuomo, because I wouldn't doubt
18 that there was someone from his office that was
19 calling you trying not to have this panel, in the
20 last few days. I don't know that for sure, but
21 this seems to me like something that we as New
22 Yorkers cannot stand up for. That's the reason
23 Catskill Mountain Keeper is calling for a ban now.
24 We've been in the process all along, trusting the
25

1
2 system, trusting the science. Cuomo was quoted a
3 week ago as saying, "We're leaving it up to the
4 science." Well, that's clearly not the case of
5 what's happening in the State. And I really hope
6 that you continue the good work that you've done
7 to prevent this from happening.

8 [applause]

9 CHAIRPERSON GENNARO: No, please,
10 don't, don't, stop, stop, stop. Thank you, Wes,
11 and normally I wait until the end of the panel, to
12 make comments or whatever, but I, I didn't do that
13 with Joe and I guess I'm not going to do it with
14 you either. Regarding being a slap in the face to
15 me, I think it's a slap in the face to the
16 Council, and all the good people who are here
17 today that, notwithstanding dialogue we've had
18 with DEC, first they said that they were going to
19 come and testify, and then they were going to
20 participate, whatever that meant. And then it
21 was, then they were going to have like somebody in
22 the room. And, and at the outset of the hearing,
23 I asked if anyone from DEC was here, and unless
24 I'm wrong, I mean, has anyone from, is there
25 anyone in either this room or in the, in the

1
2 spillover room, from, from DEC? And I don't think
3 anybody is. And that's just, that's just, you
4 know, hubris. That you wouldn't send even like an
5 intern that could like, you know, report back. I
6 mean, it's just like this, you know, there's just,
7 there's just no interest in what's being said
8 here. And so, it makes me think of what Al
9 Appleton had to say. I mean, we have to figure
10 out what we have to do, you know, within the
11 balance of the law, and you know, political
12 pressure, whatever, to, you know, get them to pay
13 attention, and do the right thing, 'cause they're
14 not going to, they're not even going to walk in
15 and sit down, and listen to what folks have to say
16 about this. I mean, and just like the public
17 relations benefit that would accrue from that, I'm
18 just saying that like we sent somebody there. We
19 sent somebody like, like almost high ranking, or
20 whatever, to like hear what had to be said,
21 because like we care about what's being said here,
22 just to like, just to, you know, [laughs] like
23 boycott it. I think it's silly. I mean, this is
24 not my co-op board, this is like the New York City
25 Council, which is--what can I tell you? I mean,

1
2 we had Paul Rush here giving testimony, and they
3 don't need it and they don't want to hear it, and
4 yes, they did not want this hearing to happen.
5 But we're doing it anyway. And so, thank you,
6 Wes, I appreciate your testimony.

7 WES GILLINGHAM: Thank you.

8 CHAIRPERSON GENNARO: And ...
9 Michael. Michael, and I got your, got your
10 statement right here. With the very nice business
11 card, too, very cool looking, thank you.

12 MICHAEL LEBRON: Oh, thank you.

13 CHAIRPERSON GENNARO: Oh, yeah.

14 MICHAEL LEBRON: Chairman Gennaro,
15 thank you for inviting me to testify this evening.
16 My name is Michael Lebron, I'm a board member of--

17 CHAIRPERSON GENNARO: It's not
18 evening yet, is it? Is it evening, already?
19 Yeah, okay, yeah.

20 MICHAEL LEBRON: Okay, it's
21 afternoon, I'm rushing it, okay.

22 CHAIRPERSON GENNARO: Okay, yeah,
23 yeah. Right. [laughter]

24 MICHAEL LEBRON: I'm a board member
25 of Damascus Citizens for Sustainability and a

1
2 principal of New Yorkers for Sustainable Energy
3 Solutions Statewide. In the late fall of last
4 year, I called the Williams Port office of the
5 Pennsylvania Department of Environmental
6 Protection, asking them for information on the
7 number of private water wells that had been
8 contaminated by gas mining activity in Bradford
9 County, Pennsylvania. I was told that PaDEP did
10 not keep systematic records of that information,
11 but that I was welcome to come down and take a
12 look at the, each well file that they had. I was
13 also told that landowners and gas companies did
14 not have to report this information if they were
15 able to resolve the problem on their own. I felt
16 that the public had a right to know about
17 potential migratory patterns and pathways of
18 contamination in Bradford. So, I set out to
19 produce the map of known or reported
20 contamination. This is the map that I'm referring
21 to here. The data on drilled and productive gas
22 wells on this map is from Bradford County's own
23 website which they update quarterly. The data on
24 contaminated water wells is gathered from personal
25 observation, that of community members and

1 newspaper reports and I try and update this
2 quarterly as well. Of particular concern to this
3 community are a group of gas wells drilled by
4 Chesapeake, on the well's property in
5 Tarrytownship, over a year ago, that are
6 responsible for contamination of nearby water
7 wells, and are the source of methane bubbling from
8 the riverbed of the Susquehanna. The migratory
9 pathway distance from the nearest well to the
10 point of contamination of the riverbed, is about
11 two miles. A contaminated water well of a private
12 residence that sits 500 feet high on top of a
13 mountain, is about another mile further out.
14 There are migrations elsewhere in Bradford, that
15 are suspected of being as long as five miles. So
16 as we can see, in Bradford County, multi-mile
17 migration is not an academic fear, it is a
18 reality, as it is elsewhere in the country. I
19 spoke to Scott Perry, Director of Mineral
20 Resources in PaDEP, earlier this week about
21 remedial action. He said that Chesapeake has been
22 ordered to perforate the casing and recement it,
23 and that if that fails, then they will have to do
24 a washover. But he was confident that they would
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1
2 not have to take that extreme step. I asked him
3 whether or not the drilling activity could have
4 stimulated fractures, joints or faults, in a way
5 that created migratory pathways, autonomous to the
6 well board. He did not answer this question, but
7 instead insisted that the remedial actions will be
8 successful. Dr. Ingrafio [phonetic] however says
9 that these actions are not guaranteed to work, and
10 that when taken by Cabot in Dimock were
11 unsuccessful, requiring them to plug the wells.
12 Instead of remediating the problem, many Dimock
13 residents found contamination to be exacerbated
14 after plugging. Note also that Chesapeake claims
15 that they were following the new PA regs to the
16 letter on these wells, and still had a fracture.
17 I also want to insert a comment here. Dr.
18 Ingrafio has told me that anyone who claims that
19 they can guarantee the length of a frack is trying
20 to pull the wool over your eyes. I asked about
21 Crystal Stroud [phonetic], the woman who after her
22 hair started falling out, found out that she had
23 levels of barium and strontium in her system,
24 about ten times the federal standard. He said
25 their investigation showed that there were

1 naturally occurring, high levels of barium and
2 strontium in the groundwater there. I tried to
3 ask if drilling the gas well could've caused
4 referred disturbance to the aquifer, but he simply
5 said that the well hadn't been fracked yet, even
6 though I had asked about drilling, not fracking.
7 I asked for the investigation study, he said a
8 press release had been issued. I asked for the
9 investigation study again. He said, "I would have
10 to look for it, but it is on the DEP website,"
11 paused, and then added that "Maybe you should
12 submit for an FOIA." I asked Scott, "Why would
13 Crystal abandon her home?" He responded by
14 saying, "I'm not aware that she's abandoned her
15 home." I replied, "Well, I just told you she
16 abandoned her home, but really it's been all over
17 the news." I surmised that Scott's efforts to
18 downplay the risk of the reality of this totally
19 new technology, must be rooted in an institutional
20 inclination to continue to think of these gas
21 wells as your grandma's gas wells. If this
22 institutional mentality pervades the New York
23 State DEC, this may be the reason why New York
24 City will not have completed the job of protecting
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2 its watershed, unless it does the job itself.
3 Unless we have a regulatory scheme and regulators
4 that recognize this new era has brought a host of
5 new problems and needs new standards, we'll
6 continue to get the kinds of human misery that is
7 inflicted on families like the Strouds, and will
8 continue to take risks for resources like the
9 watersheds, not only of New York City, but those
10 throughout the State that are totally
11 disproportionate to any gain we'll get from gas
12 fracking. And I've also submitted on CDs
13 additional information regarding cementing casing
14 faults and fractures from Dr. Ingrafio and others
15 - - . Thank you.

16 CHAIRPERSON GENNARO: Thank you.
17 Thank you, Michael, and thank you for the CDs, and
18 for the additional information, and for your, you
19 know, years of passion on this. And the part of
20 your statement that talks about New York City will
21 not complete the job of protecting its watershed
22 unless it does the job by itself, I mean, if only
23 if were that easy. I mean, we would love to be in
24 charge of, have everything that we could, that we
25 could, if we could control our own destiny with

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2 regard to this, but we don't, and so this is
3 what's so frustrating, that we're really dependent
4 upon the State to do the right thing, and to
5 figure out a way to make that happen. And that's
6 what, and it's going to be hard, and it's, but
7 that's what this hearing's supposed to be about.
8 And you know, so there's legal avenues, there's
9 political avenues, and this hearing is all about
10 building the case for, you know, what we can do as
11 like a small town on the Hudson that wants to sort
12 of push back against the State. But, you know,
13 we're not going down without a fight. But thanks,
14 guys, and so I'll see you out there, and what I'm
15 going to do is Council for the Committee is going
16 to call the next panel, seat the next panels,
17 swear the next panel. And then, let the panel
18 after that know that they're on deck. And I'm
19 going to be back in exactly two minutes. And no
20 one should start testifying until I get back.

21 COUNSEL: Eric Wel--

22 [long pause, background noise]

23 CHAIRPERSON GENNARO: I'm back, I'm
24 back, I'm back. I'm back. We have to swear us
25 up. We could ... get going again?

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[pause, background noise]

COUNSEL: Could you please raise your right hand? Do you swear or affirm to tell the truth, the whole truth and nothing but the truth today?

PANEL: Absolutely. Yes.

CHAIRPERSON GENNARO: Thank you. And [pause, background noise] Great, okay. And last panel was my left to my right, we're going to go from my right to my left. And so, yeah, so the young lady at the far end of the table will, will testify first. And I have--so, please state your name for the record and commence with your testimony.

HILARY BAUM: Okay. My name is Hilary Baum, and I want to thank the Committee for having this hearing. But I have to say I'm very disappointed because my own Councilman, who is on this Committee, is not present today.

CHAIRPERSON GENNARO: But he's a really good guy. And--

HILARY BAUM: Well, I'm glad to hear that, but--

CHAIRPERSON GENNARO: He's a really

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good guy and he--

HILARY BAUM: --I was hoping he'd be really interested.

CHAIRPERSON GENNARO: --chaired the Assembly Committee on environmental conservation I think for more than a decade. And he is one of my stalwarts, he always here, and if for any reason he's not here he has a damn good reason for not being here, because he's, he's a terrific guy and a great Committee Member, and I'm sure a great Council Member that represents you.

HILARY BAUM: Right, well I do miss him.

CHAIRPERSON GENNARO: Very, very ably. And I have never known him to miss a hearing ever.

HILARY BAUM: I hope he's very busy. [laughter] I am testifying on behalf of Food Systems Network NYC, of which I'm the founding board member. The Network is a not-for-profit organization dedicated to ensuring universal access to nutritious, safe food and the viability of our regional farm and food economy. Founded in 2004, our organization's members are

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2 from business, government agencies and
3 organizations involved in all phases of the food
4 system. I was also an advisor of the Speakers
5 Food Works Initiative, and I'm Director of Bound
6 Forum, a not-for-profit producer of public
7 programs on critical food and farming issues,
8 including a conference that we did in May, on
9 food, fracking and the green economy. On behalf
10 of Food Systems Network, we want to draw your
11 attention to a glaring omission in the State's
12 SGEIS on fracking. The State has failed to
13 adequately consider the impact of fracking on the
14 food and farming economy of New York State, and by
15 extension the food supply to New York City
16 residents. We fear the widespread use of fracking
17 will endanger farmland through environmental
18 degradation, fragmentation and lease of dwindling
19 farm acreage. Additionally, high volume water use
20 and potential for water, soil and air pollution
21 are in direct competition with sustaining our
22 farming economy. The 28 counties that overly the
23 Marcellus Shale currently boast over 20,000 farms,
24 four million farm acres and \$2.4 billion in farm
25 revenue, which is more than the statewide, than

1
2 half of the statewide farm economy. We are
3 concerned that this critical omission in the SGEIS
4 will continue the misapprehension that fracking
5 and farming can somehow be compatible. The
6 impacts on agriculture, including the health of
7 farm families, crops, animals and wildlife, have
8 been described and documented by farmers,
9 scientists, retailers and advocates. There is
10 also widespread concern that fracking in New
11 York's food producing areas will result in
12 creating a damaging and irreversible stigma to the
13 food sourced from this area, and the loss of hard
14 won organic and other certifications. I will
15 provide some resources and references for the
16 record, along with my testimony. New York City
17 has made tremendous strides in linking our upstate
18 farmers to the City. This Council has just passed
19 legislation to help agencies procure more local
20 food, provides funding for residents to use their
21 food stamp benefits, and New York City health
22 bucks at farmers markets throughout the City, and
23 has even started a weekly CSA. There are
24 countless organizations doing similar efforts
25 through farmers markets, CSAs, bringing produce

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2 and other products into schools, pantries and soup
3 kitchens, restaurants and stores. This has been
4 good for both New York City and upstate
5 communities, providing access to affordable and
6 nutritious food, supporting farmers and food
7 producers, and securing our regional food system.
8 We can't afford to let these advances in the food
9 and ag economy slip away. We urge the City
10 Council to not just think about protecting New
11 York City's watershed, but to think about
12 protecting New York City's regional food shed that
13 extends through most of New York's threatened
14 southern tier. And to think about protecting our
15 regional food and farm economy and the future of
16 our food system. We ask that you pass a
17 resolution and lobby the state to extend the
18 comment period and not fast track the rulemaking
19 process, and to withhold any permits until a
20 comprehensive impact study on the effects of
21 fracking on our regional food supply and
22 agriculture be undertaken and published as part of
23 the SGEIS. And we ask you to consider several
24 other weaknesses in the SGEIS and comment process,
25 which our organization will outline in a

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2 forthcoming paper. We would be pleased to provide
3 assistance in educating Council Members and staff,
4 about this subject, and making materials
5 available. Thank you.

6 CHAIRPERSON GENNARO: Thank you so
7 much. This is very, very compelling testimony,
8 and I'm so grateful that you came in and delivered
9 this. This is, I mean, I have thought about it,
10 but I never really, you know, wrapped my head
11 around the whole, you know, issue of impacts on
12 the ag economy, like you put forward on this
13 single piece of paper. And I'm very grateful to
14 you, and I'll have some questions for you on this
15 at the end of the panel. And with that said, Ms.
16 Lene, how are you?

17 SHUHO LENE: Thank you so much. My
18 name is Shuho Lene [phonetic] and I'm so grateful,
19 my district Councilman Gennaro, is the Chair of
20 this Committee. I am, I am retired, hospital
21 laboratory quality control supervisor. And also
22 as a Gray Panther member, and, and - - in the
23 Green Coalition member. And I, after I reviewed
24 this--

25 CHAIRPERSON GENNARO: I would like

1
2 to say that I have more gray than you, so--

3 [laughter]

4 SHUHO LENE: Welcome, welcome to
5 the generation--

6 CHAIRPERSON GENNARO: Can I be an
7 honorary member? Can I, can I be a Panther?

8 SHUHO LENE: Yeah, Gray Panther.

9 CHAIRPERSON GENNARO: I think I
10 got, you know--

11 SHUHO LENE: Maybe, maybe you would
12 like to be our honor member--

13 CHAIRPERSON GENNARO: Okay, yeah.

14 SHUHO LENE: --of the Gray Panther.

15 [laughs] Well, after reviewing this, the revised
16 draft, I do feel even though it's much better than
17 before, but it's still not good enough. And I'm
18 still strongly go for the ban, ban the
19 hydrofracking. Because you can look on the
20 different level. First we can look on the New
21 York City water level. When, you notice water and
22 the, they plan, company they plan about every
23 year, maybe you have 2,462, and which, well, every
24 year, and you know, each well will need about five
25 or--five million gallon of water. That's a lot of

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2 water. And we use like New York State, we use
3 about eleven billion of their gallon of the water.
4 And if you think about if those people, they
5 affect the water at the same time, especially
6 during our drought time, what is going to happen
7 to our water? We will have no water for our self.
8 So, that's one is water - - and the second one is
9 contaminate of the water. And we know the,
10 although they increase the buffer zone, to like
11 4,000 feet, 2,000 feet, to then 1,000 feet, for
12 the, for the - - and even 500 feet for the, for
13 the public well, but that's not enough, because we
14 know they go after they go down, they are, they
15 still go to horizontal drilling. That definite
16 not enough for, for us. And we also know the
17 material and substance, they migrate, and they
18 migrate, even though we don't see the migration
19 now, from time to time, even when our next
20 generation, or next generation after, they would
21 travel to a long distance. So, and then we, we
22 look at our - - have leaking, they know every day
23 they leak about 20 million gallon of the water.
24 And that's a lot of water to leak, and then we
25 also spend a lot of money, like a billion or maybe

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2 more, try to fix that leaking. And if you imagine
3 that 1,000 feet, I worry there's some
4 hydrofracking going on, with this bomb going, and
5 with drilling going, and with this substance
6 migration going. And that's going to be, affect
7 our quality of the water. And I want to, I want
8 to mention about doc--on September 15, Dr. - -
9 together with 59 scientists, which is the, like
10 either physician or engineer, and they wrote a
11 letter to Governor Cuomo, and talk about, was
12 their experience, because this, this scientist are
13 from all wide, their experience their fear the
14 City filtration system is not capable to filter
15 the, the chemical and those hazard material come
16 from hydrofracking, or come from their waste of
17 the original fracking fluids. And so, this is a
18 very important from the scientific research, so I
19 think it's a very, we got to pay attention to
20 that, too. And first, and the next thing, we just
21 have the Hurricane Irene, - - and now we are
22 experiencing this big flooding. And how about if
23 this thing happened, if they have the chemical,
24 this hazard material, inside this, this water?
25 What is going to happen to us? We not only have

1
2 to worry about the flooding, and we also have to
3 worry about those chemical inside the water.

4 Okay, now, I'm going to mention about the, the how
5 to dispose--keep on going, right? How to dispose
6 of the, of this, the waster material. We know the
7 hydrofracking everywhere produce about 2.7 million
8 gallon of the waste. That's a lot. How they, how
9 they dispose it. And you know, those waste is
10 including those chemical hazard and again the same
11 old things, and the heavy metal. And so, I'm
12 really thinking about they need, we, now we, of
13 course we don't want those kind of waste material
14 come to our water, the waste water system. So,
15 they, I'm really calling for they have the waste
16 treatment, their specific waste treatment, which
17 we can filter through those kind of the chemical
18 and the radioactive, those material. Because--not
19 material, those kind of substance, because, and
20 with treatment plan, we have microorganism in
21 there, but that, those kind of chemical is going
22 to cure them all, the waste treatment plant is
23 going to be function well at all. So, the next
24 thing I'm going to talk about, the, they mention
25 about this going to increase our revenue by \$11

1 billion, and then like a job is like maybe like a
2 60,000 people job. But do you think those job is
3 going to be a New Yorker. I doubt it, they
4 probably find, get some whatever they, they can
5 get cheaper of, or somebody. And, and--and I, and
6 the whatever am I now? [laughs] Yeah, no job is
7 not--
8

9 CHAIRPERSON GENNARO: That's okay,
10 you did a great job.

11 SHUHO LENE: I did a great job,
12 too?

13 CHAIRPERSON GENNARO: You did a
14 good job.

15 SHUHO LENE: Huh? Thank you for
16 encouragement. [laughter] And, yeah, and we know
17 those kind of the, the well is only, actually it's
18 only good for the, for four years to 20 years.
19 Those well is good. It's, so it's, it's, the way
20 you think it's really it's not going to pay, you
21 know. And we have to worry about how to, you
22 know, those kind of toxic get into our, into our,
23 our environment. Okay. Now, and I--

24 CHAIRPERSON GENNARO: Ms. Lene, if
25 you--I'm just wondering if you can start to

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summarize.

SHUHO LENE: Okay, I'm sorry, this my last one now. Okay, I, shoot, yeah. So, actually, and so I'm, I'm calling, I'm call, I see the, I think the important, I work in the laboratory before as a, as a quality control, I can see people take shortcut. That the same thing everywhere. People will take shortcut, and the company, company will, and the company try and, try to save money. So, I'm really calling for, for the where is the strict regulation. And I'm calling for the inspector onsite, onsite, almost every day I know we cannot afford it. And with the instrument there to measure what kind of the material, we need a major material in the soil, because the soil, even though they may not be seen at that time, they might be migrate a little later on. So, you need to find a soil in the water system, and so it's important to keep track of what is, what kind of waste substance is in there. So, - - my last one, is we know most accident is of course caused by human error. And worker have tendency to take a shortcut. And if it's in order to safeguard our human health, and protect the

1
2 environment, we must suspend hydrofracking
3 completely. We go for renewable energy. Thank
4 you very much.

5 CHAIRPERSON GENNARO: Thank you,
6 Ms. Lene. I, I really appreciate your being here
7 today. And you represent the 24th Council
8 District, just as good as I do, yeah. [laughter]
9 Thank you. And Mr. Weltman.

10 ERIC WELTMAN: Thank you. My name
11 is Eric Weltman, and I'm Senior Organizer with
12 Food and Water Watch, a nonprofit organization
13 whose mission is to ensure that our food and water
14 are safe, accessible and sustainably produced. We
15 thank the Committee on Environmental Protection,
16 and Chairman Gennaro in particular, for holding
17 this hearing. We greatly appreciate your
18 continued efforts to engage New York City
19 residents on the vital issue of fracking. We urge
20 you, Chairman Gennaro, and the entire Council to
21 send a strong message in support of a ban on
22 fracking in all of New York State. The science is
23 clear: a ban on fracking is the best and only way
24 to adequately protect our water, air and food from
25 the dangers of fracking. In fact, there is

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2 abundant evidence that fracking cannot be done
3 safely in New York. There are safer alternatives
4 to natural gas, but there are no alternatives to
5 water. There are two pressing decisions--thank
6 you--pending, regarding fracking in New York.
7 First, the Delaware River Basin Commission will be
8 voting on October 21st on whether to allow
9 fracking in the Delaware River basin, a source of
10 drinking water for 15 million people, including
11 nine million New Yorkers. Second, the Department
12 of Environmental Conservation has issued its draft
13 Environmental Impact Statement, in which it
14 proposes opening much of New York State to
15 fracking. Although the DEC proposal bans fracking
16 in the New York City watershed, there are at least
17 three reasons why New York City is still at risk
18 from fracking. First, air pollution from fracking
19 poses a threat to public health and the climate.
20 Fracking emits large quantities of dangerous air
21 pollutants, such as benzene, volatile organic
22 compounds, and particulate matter, which can
23 contribute to asthma, cancer, and heart disease.
24 For example, in Texas, a hospital serving six
25 counties near drilling sites report asthma rates

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2 three times higher than the State average. One
3 quarter of young children in the community had
4 asthma. In addition, fracking release methane, a
5 major greenhouse gas, and in fact a Cornell
6 University study concluded, as a consequence,
7 shale fracking could have a greater impact on
8 climate change, than coal or oil over the
9 lifecycle of its production. Second, as Hilary
10 mentioned, fracking is a threat to the safety of
11 our food. Much of the Marcellus region is active
12 farmland, and fracking fluids, waste water and air
13 pollution, threaten the water and soil that our
14 State's large agricultural sector rely upon,
15 including residents in New York City. Third, New
16 York City's water remains at risk, despite the ban
17 on fracking in our watershed, because of the large
18 quantities of toxic waste water produced, as well
19 as the migration of toxic fluid that remains
20 underground, whose movement is unpredictable and
21 is certainly beyond our control. Needless to say,
22 accidents, explosions and leaks are common in the
23 oil and gas industry. In conclusion, fracking is
24 inherently unsafe. We urge the New York City
25 Council to send a message to President Obama,

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2 Governor Cuomo, and our State legislators: Put
3 the safety of our water, health and communities,
4 ahead of industry profits; ban fracking in the
5 Delaware River basin and in New York State. Thank
6 you.

7 CHAIRPERSON GENNARO: Thank you,
8 Mr. Weltman, I really appreciate your being here
9 and your--

10 ERIC WELTMAN: And--I'm sorry,
11 just, and I included for the record our report,
12 "The Case for a Ban on Gas Fracking."

13 CHAIRPERSON GENNARO: Yes. Thank
14 you, thank you. And I do very much appreciate
15 that. If only I and the City Council had the
16 power that, I guess we wish we had, and that many
17 people wish we had. I apparently lack the power
18 to get DEC to set foot in this room. [laughter]
19 Much less to get the Governor to ban it throughout
20 the entire State. But I want to do my job
21 regarding the people of the City of New York, with
22 regard to New York City's drinking water supply
23 watershed, and everything associated with that.
24 And lend my, you know, voice and spirit to those
25 who have issues that, who have concerns that go

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2 beyond just the New York City drinking water
3 supply watershed. Which is a very big thing, but
4 there are ricochets from fracking that go, you
5 know, way beyond our water supply, even though
6 it's the water supply for nine million people.
7 And I don't want to take too much time to
8 pontificate, but this whole process is one in
9 which the State, you know, due to political
10 pressure, or just kind of bowing on some level to
11 reality, have deemed certain water supplies in the
12 State like too big to fail, so to speak. So if we
13 wreck New York City it's like what are we going to
14 do? Wreck Syracuse, what are we going to do? If
15 there's like a municipality that just takes one
16 aquifer, we can't really truck in water for a, you
17 know, city of 100,000 or whatever. But water
18 supplies that serve five people, 25 people, 100
19 people, you know, we could deal with that. This,
20 the--this is the thing, and I'm not comfortable
21 with the whole notion that the, that a water
22 supply for 100 people should be placed at risk,
23 and we're, you know, taking care of the supply
24 that takes care of nine million people. But the
25 100 people, because they draw from this water,

1
2 like it's okay that we do things, to put that,
3 that particular supply at risk. It's, it's not.
4 And we, the more people statewide that send the
5 message that needs to be sent, that's what does
6 need to happen. But, you know, the Governor's at
7 what, 66 approval rating now? Whatever. And, and
8 everyone's yelling and screaming about fracking
9 and he's still at 66 percent. And that's, that's
10 a problem. And so, but I'm grateful for this
11 report.

12 ERIC WELTMAN: Thanks.

13 CHAIRPERSON GENNARO: And--

14 ERIC WELTMAN: Mr. Chairman, if I
15 could just raise one other quick point, and I--

16 CHAIRPERSON GENNARO: I'll let you
17 do this quickly--

18 ERIC WELTMAN: Thanks.

19 CHAIRPERSON GENNARO: I'll give you
20 a little bit of latitude here.

21 ERIC WELTMAN: - - Thank you. And,
22 I mean, I think you raise an extraordinarily
23 important point, that you know, we as New York
24 City residents, I think it's important for at
25 least two reasons, that we still, you know,

1
2 maintain and stand strong in opposition to
3 fracking, first, you know, as I mentioned, my
4 testimony, notwithstanding the, you know, ban on
5 fracking in our watershed, we still remain
6 significantly at risk. But also just as a matter
7 of justice, for the, for the rest of the State,
8 you know, as a principled stand, you know, we as
9 City residents should say that everyone, everyone
10 deserves the protection that we're ostensibly, you
11 know, getting from the Governor.

12 CHAIRPERSON GENNARO: Right, yes,
13 that is the case. But the other parts of the
14 State doe have representation. Like I don't
15 represent them. I don't represent the people that
16 are outside, you know, the bounds of the New York
17 City drinking water supply. So, as someone who
18 has a, you know, bully pulpit and someone who can,
19 has the freedom of speech to say whatever I want,
20 that's one thing. But to take the City Council as
21 an institution or the government of the City of
22 New York, as a City, and to tell the Speaker of
23 the Council and the Mayor that we have to be
24 advocating for parts of the State that we don't
25 represent, it's, it's a real stretch. I mean, we

1
2 don't, we don't represent those parts of the
3 State. So, they have our support, and I'm happy
4 to provide the opportunity for people to use the
5 forums that I provide and that the Council
6 provides to like send a signal to the State, and
7 you know, people from the media do cover hearings
8 like this. And then, it, you know, then somebody
9 puts like the paper on like the Governor's desk
10 and says, "Hey, you know, we got trouble in New
11 York City," and this is starting to like add up
12 here. But let me just say I'm grateful that
13 you're here. I'm grateful to take your input and
14 everyone else who is giving of their time and
15 talent to be here today. You know, to put forward
16 that to any entity that will, you know, listen to
17 me and to this body, and we're certainly going to
18 make a difference. Whether it's going to be
19 everything we want, I don't know. But like this
20 food thing is another, you know, great angle. Got
21 me hungry, I was just eating, I didn't have lunch
22 or anything, so [laughter] I was getting ready for
23 the hearing. But I appreciate your being here,
24 this is not the last time you'll be testifying at
25 hearing that I'm going to hold on this. And but

1
2 we're going to keep going, and you know, better to
3 light a candle than curse the darkness, and that's
4 what we're doing here. And I've been on this for
5 three years, I'm not giving up. And, and we will
6 be heard and there you have it. So, I'm grateful
7 to this panel. If you have something else to add,
8 Ms. Baum, please go ahead.

9 HILARY BAUM: Yes. I'd just like
10 to say that I'd like to invite you and everybody
11 in this room to an event that we're doing on
12 Sunday, which is called "A Taste of the
13 Marcellus," and the New Amsterdam Marke.t And
14 you'll be able to really get a good feel for the
15 relationship that we're talking about here in
16 terms of food and fracking. And we're going to
17 have a lot of educational materials there, and
18 people to talk to the public and continue to raise
19 public awareness about this incredibly critical
20 issue.

21 CHAIRPERSON GENNARO: What I would
22 like--please we can't call out from the gallery--
23 what I would like is if you could provide that
24 information to the Committee.

25 HILARY BAUM: Yes.

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2 CHAIRPERSON GENNARO: And then, we
3 can take a look at that.

4 HILARY BAUM: Okay, great. I will
5 do that.

6 CHAIRPERSON GENNARO: Very grateful
7 to this panel, and thanks once again for being
8 here. And I believe this next panel was already
9 called, is that right?

10 COUNSEL: United for Action is - -
11 next.

12 CHAIRPERSON GENNARO: Okay, so this
13 is the United for Action panel. [background
14 noise] Alex Tuffle [phonetic], Alice Alcala
15 [phonetic], Dave, looks like Pablo.

16 DAVE PABLO: Pablo.

17 CHAIRPERSON GENNARO: David Braun.
18 Okay. And we have the next panel? [background
19 comments] Okay. And then, the, this is the next
20 panel Samara? So, the panel after this ... looks
21 like the last name is ... Estrow [phonetic]. I
22 can't make out the first names. Oh, okay, okay.
23 Buck Moorhead, okay, Buck, yeah. Buck will be on
24 the next panel. Stephanie Lowe [phonetic], Tony
25 G-E-something. Oh, and Ellen Weininger

1
2 [phonetic], looks like that, Weininger, Weininger,
3 Grassroots Environmental Education. Oh, from Port
4 Washington, one of my, one of my hangouts in Port
5 Washington. And I want to thank this panel for
6 being here. And I'll ask Counsel to the Committee
7 to, to swear in the panel. And then, we can
8 commence.

9 COUNSEL: Please raise your right
10 hand. Do you swear or affirm to tell the truth,
11 the whole truth and nothing but the truth today?

12 PANEL: I do.

13 CHAIRPERSON GENNARO: Mm. We'll
14 start from this side, okay?

15 ALICE ALCALA: My name is Alice
16 Joyce Alcala.

17 CHAIRPERSON GENNARO: You have to
18 speak into the mic, make sure the mic is on.

19 ALICE ALCALA: Okay. And I'm with
20 United for Action. I'm a foot soldier on the
21 streets often, handing out materials to the
22 public. And I was writing my testimony, doing
23 research, Dr. Ingrafina of Cornell, I was watching
24 him and taking notes. And I'm departing from my
25 speech, I want to clean it up and give it to you

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2 by mail. But what I, there are two words that he
3 used, that I think are really, really important.
4 I'm a former English teacher, and I really
5 understand how important language is in giving
6 pictures in people's heads. So there are two
7 words that he used that I think are really very,
8 very significant. One of them is the word
9 communication, and the other one is, well let me
10 just start with that. Okay, in terms of wells,
11 communication, there's such a thing as
12 communication between wells. And it's a very nice
13 image, you have one well here, and one well there,
14 and they're communicating with each other. But
15 that actually means something else in this
16 particular context. So, that's one part of the
17 puzzle. I'm going to move to another part of the
18 puzzle. There are, in New York State, there are
19 ProPublica says that there are 40,000
20 deteriorating wells in the State, with only 125 of
21 the 40,000 are plugged, or even known where they
22 are. So, okay, so you have these, these wells
23 that are out there, and then you have this idea of
24 communication between wells. Well, according to
25 Dr. Ingrafina, communication of wells means that

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2 when the pressurized 5,000 gallons of fracking
3 fluid, of the wellbeing fracked, and they don't
4 use "fracked," they use drilling stimulation. So
5 it's like child stimula--you know, when you
6 stimulate learning, you know, as a teacher, you
7 always wanted to stimulate your students so
8 they'll learn. So, with well stimulation, it
9 doesn't mean, you know, it doesn't have that cozy
10 feeling; it actually means that all of this
11 fracking fluid is going down, that's going down at
12 10,000 PSI goes to the other well. It somehow
13 goes to the other well, and explodes out of it
14 like a geyser. So it's actually an explosion that
15 happens when these wells communicate with one
16 another. So, I, they, he said that the one way to
17 avert this is if there is some kind of seismic
18 investigation first. But given the industry and
19 the way the industry operates, who's going to do
20 this seismic exploration, to make sure that
21 there's no expl--you know, possibility of
22 explosion. And I would imagine it doesn't only
23 refer to wells exploding, but also other
24 structures that can, they can also migrate to.
25 So, how will we prevent these explosions from

1
2 happening? I mean, who's going to do the research
3 to see if there is some sort of possibility of
4 this occurring. And will permitting occur only
5 after proof that such investigation has been done,
6 or is this going to be just ... That's it.

7 CHAIRPERSON GENNARO: Oh.

8 ALICE ALCALA: That's it.

9 CHAIRPERSON GENNARO: Thank you,
10 Alice, and at the, at the end of the panel, I'll
11 be coming back to make comments on your statement.
12 How you doing, hi.

13 DAVID BRAUN: Nice to see you, Jim.

14 CHAIRPERSON GENNARO: Yeah, same
15 here.

16 DAVID BRAUN: Thank you for having
17 us here.

18 CHAIRPERSON GENNARO: You bet.

19 DAVID BRAUN: Today, appreciate it.

20 CHAIRPERSON GENNARO: Sure.

21 DAVID BRAUN: So, I'm David Braun,
22 and there's, a lot's been said here today that I
23 don't need to go back over, in the interest of
24 time. But you know, I mean, key points by Al
25 Appleton, Joe Levine, the two gentlemen from the

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2 NRDC. I mean, just everybody's really been saying
3 some key points. You know, one of the things I'm
4 very pleased, I just want to say very pleased of
5 the hard work of the Committee. This Committee
6 and the New York City Council, they've put some
7 very strong protections in the SGEIS, and
8 obviously strong protections for our watershed,
9 which are a result of much of your hard work, and
10 so thank you. The, there are some glaring
11 deficiencies, though, in the proposed regulations.
12 OF course the, you know, the 1,000 foot buffer
13 around our aqueducts, you know, we need, as I
14 guess Al was saying, a ten mile, but at least a
15 seven mile. And it's great that we were fortunate
16 enough to have a ban in our watershed, which is
17 clearly a victory. Unfortunately, its protection
18 is not being afforded to all citizens in the
19 State. And it begs the question, why one
20 constituency is more important than any other, and
21 I know that you've addressed that you cannot
22 really advocate for other constituencies, but I
23 think it's still at least important in making
24 public statements, to draw attention to the double
25 standard that has been created as public voices do

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carry further than the bounds of the City.

CHAIRPERSON GENNARO: And what I'm going to do at the end, I have some of my, I have some of my public statements that I've put out, like in the last couple of weeks that--

DAVID BRAUN: Awesome.

CHAIRPERSON GENNARO: --I think you'll be happy with.

DAVID BRAUN: Yay. Okay.

CHAIRPERSON GENNARO: I don't know how many people listen to them, but you know.

DAVID BRAUN: Yeah, we do. People do. Yeah, you're respected. So, you know, just I think it's the double standard is a very important thing to call attention to, because basically by creating a ban in our watershed, there is clearly a demonstration that there is serious issues of toxicity, and that this is a damaging and toxic process. By not affording that, those protections to all the people in the State is clearly creating a double standard. So, I think that the Governor would've been better off not banning it in the watershed if he really wanted to say that this is something that is actually a tenable practice for

1
2 the society as a whole. The basic background, and
3 let me just say this, and I'll be done.

4 CHAIRPERSON GENNARO: Please don't
5 give him any ideas. Okay.

6 DAVID BRAUN: Yes.

7 CHAIRPERSON GENNARO: On that.
8 'Cause you know, you just--

9 DAVID BRAUN: Yeah.

10 CHAIRPERSON GENNARO: --mentioned
11 that, but you know, god forbid he takes you
12 seriously.

13 DAVID BRAUN: Yeah, exactly.

14 CHAIRPERSON GENNARO: That's it,
15 yeah, we don't--

16 DAVID BRAUN: Yeah, I know, I mean,
17 you don't want to--

18 CHAIRPERSON GENNARO: We don't want
19 that.

20 DAVID BRAUN: You don't want to
21 draw connections.

22 CHAIRPERSON GENNARO: No.

23 DAVID BRAUN: [laughs] Yeah, I
24 know, it's tough. Thinking people, we have a
25 tough time. Ow [laughter] my brain hurts. There

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2 are hundreds, literally hundreds of reasons, not
3 to do hydraulic fracturing, any one of which would
4 be sufficient reason in and of itself not to do
5 this practice. But there isn't just one of those
6 reasons, there are not just five of those reasons,
7 there are literally hundreds of those reasons.

8 One of those reasons was something that Wes
9 brought up earlier, was the air quality. Every
10 7,700 wells equals the air quality of a
11 Dallas/Fort Worth, Texas. If they do put in
12 anywhere from the 50 to 150,000 wells in New York
13 State, we're looking at anywhere from seven to 20
14 Dallas/Fort Worth, Texas in upstate New York. As
15 it is here in New York City, we already have 3,000
16 people dying each year as a report, as a result of
17 particulate matter and air quality. We could just
18 look for that situation to be exacerbated. That
19 in reason alone would be I think reason to
20 possibly bring a lawsuit or some other form of
21 protest. The other, some of the other issues that
22 haven't actually really been discussed, is they're
23 still planning on using these open pits. When
24 they use these open pits, they're planning on
25 using evaporation sprayers. No? Yes?

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MALE VOICE: Yes.

DAVID BRAUN: Yes? They're planning on using the evaporation sprayers. With the evaporation sprayers, the chemicals and the volatile organic compounds, go up into the air, rainclouds, which we've been seeming to get a lot of, tend to accumulate and collect these chemicals and the volatile organic compounds, and the radiation, it will rain into our watershed, it will end up, and that is one way that it will not be filtered out. And it cannot be filtered out. And you know, the wind blows in many directions. Let's hope it starts blowing in our favor. And so, you know, again, I just want to, I appreciate your hard work on this, and thank you for allowing me to come and testify with you today.

CHAIRPERSON GENNARO: Thank you, thank you. And Michael, you, David, David, you made me realize that one of the questions I, I wanted to pose to DEP, that--is Rick still here? Okay, yeah--I was actually going to ask Paul about, about air, and about how rain events can ... take some of these emissions and essentially put them into our water supply. And something

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2 that I was going to ask Paul and didn't, but I'll
3 make a note to Rick from DEP, who's still here,
4 unlike DEC who was never here, and for Samara, as
5 well, we should put this on our docket of things
6 to go over with DEP, and also as we run this up
7 the flagpole with the Speaker's office and
8 everything else, to, you know, try to get a, try
9 to get a hook. You know, get some traction with
10 other folks, but you did, did you have more to
11 your statement, David? Okay. Okay, good. And
12 Mr. Pablo, or--?

13 DAVID PABLO: Pablo.

14 CHAIRPERSON GENNARO: Pablo, Pablo,
15 okay.

16 DAVID PABLO: Yeah, my name is
17 David Pablo. He goes by David, I go by Dave, just
18 to simplify it.

19 CHAIRPERSON GENNARO: Okay.

20 DAVID PABLO: I'm with United for
21 Action. And I also wanted to echo the thanks for
22 Chairman Gennaro and the Committee, especially
23 what's left of it here. I also wanted to thank
24 DEP for coming out and making statements. I think
25 those are, were very informative and very

1
2 important for that particular entity to come out
3 and make those statements.

4 CHAIRPERSON GENNARO: Yeah, we also
5 talk a lot, like you know, me and, and DEP, and
6 there's a lot of, you know, good dialogue going
7 on--

8 DAVID PABLO: No doubt.

9 CHAIRPERSON GENNARO: --and they--

10 DAVID PABLO: But the public record
11 is extremely important on this particular issue.

12 CHAIRPERSON GENNARO: Right, sure.

13 DAVID PABLO: Of course. And to go
14 along with that, I also want to echo and support
15 the statements that were made by Eric Goldstein,
16 Craig Michaels, Al Appleton, Joe Levine, Wes
17 Gillingham, Cathleen Breen and Michael Lebron. My
18 own person experience, which is just a layman,
19 increasingly educating myself and reading a lot
20 about this particular issue, is that that's
21 supported in many different contexts. And since a
22 lot of those things have already been covered in
23 this, I'll be very brief. I just wanted to cover
24 some things that have come out in my own
25 experience as an activist on this issue. I've

1
2 gone to a lot of different hearings, I've also
3 given PowerPoint presentations, done Q&A after
4 "Gasland" screenings, things like that. So, let
5 me share a couple things. At a DRBC hearing
6 yesterday, which is the last one as was already
7 said, before they issue their decisions as to
8 whether to open up that particular watershed to
9 drilling, there were many statements made. One
10 was by a physician who talked about the heightened
11 incidence of cancer rates already in such a short
12 period of time, in counties in Pennsylvania where
13 fracking is occurring. Another person who spoke
14 was a veterinarian who was talking about the
15 higher incidence of death of livestock. She cited
16 one particular farmer who had had a very good
17 success rate in terms of birthing calves, had made
18 some statements to the effect that he'd never lost
19 one in 30 years; and apparently in the last couple
20 years, his incidence of calf failure has gone up,
21 so he was losing something to the tune of five of
22 eight. All right? Now that's the type of meat
23 that we are eating. That's also the source of a
24 great quantity of the milk that we are drinking.
25 I'm a member of the Park Slope Food Co-Op, and I,

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2 you know, even the organic milk that we get comes
3 from Pennsylvania. I do not know about the
4 quality of that milk anymore. Additionally, at
5 this DRBC hearing, a representative of FEMA was
6 there. And granted, he was speaking in his area
7 of expertise, which was the Delaware River Basin,
8 where they do not currently have fracking
9 occurring, except in a think a couple test sites.
10 But it was the issue of the flooding after the
11 hurricane activity was brought up, and what was
12 the result of overspill from evaporation pits,
13 both the smaller flow back pits that are on the
14 actual drilling sites, and the larger ones that
15 are about two-and-a-half times the size of a
16 normal football field. And he had no clue. He
17 had nothing to say. He had no idea about the
18 toxicity of those sites or what the result of the
19 overspill would be to the landscape and to the,
20 that farmland. Other things that I wanted to
21 bring up that hadn't quite been mentioned. The
22 New York City watershed protections, as flimsy as
23 they are, I actually want to coin a new term, it's
24 called "the imaginary buffer," so if we can start
25 using that, that would be good. The, those

1
2 protections have sunset clauses. So, in that DEC
3 report, the provisions that are there aren't even
4 permanent. One other thing that I wanted to
5 mention, and this will lead into a comment that I
6 want to make about this Committee as a whole, and
7 I understand that people had to leave, and I was
8 glad to see that actually a good turnout from
9 people here, but I ... I've been doing some
10 birddogging activity, trying to get in touch with
11 my local politicians a little bit more, trying to
12 find out what their schedules are like, see where
13 they're going to speaking, and so I've naturally
14 gone to their websites. And your website is very
15 good, in terms of where you place hydraulic
16 fracturing; although, I would have to say that you
17 should probably update it, because you still have
18 that, that statement. I'm glad that you put that
19 in context today, in terms of the reaction that
20 you had when the original SGEIS was released on
21 June 30th. But I think you should probably revise
22 it 'cause it--

23 CHAIRPERSON GENNARO: You mean the
24 website like the City Council website, that I have
25 my--

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2 DAVID PABLO: City Council website,
3 yes.

4 CHAIRPERSON GENNARO: Okay.

5 DAVID PABLO: It still, it still
6 has your statement that has certain clauses that I
7 think are regretful. Let me just read one: "It
8 appears that my advocacy and that of the City
9 Council and others has succeeded. I am pleased
10 that the State, under Governor Cuomo's
11 leadership, proposed to ban hydrofracking within
12 the New York City drinking water supply watershed.
13 This is terrific news." For, the way that people
14 read things, a lot of--

15 CHAIRPERSON GENNARO: Why don't you
16 read the rest of the statement.

17 DAVID PABLO: I could do that,
18 okay, how about I read the entire sentence, 'cause
19 yes you do have fine print in there, as you
20 referred to earlier. Okay. I'll just read the
21 entire statement. Okay, "Based on the preliminary
22 documents issued by the DEC, it appears that my
23 advocacy and that of the City Council and others
24 has succeeded. I am pleased that the State under
25 Governor Cuomo's leadership will propose to ban

1 hydrofracking within the New York City drinking
2 water supply watershed. This is terrific news.
3 While I also believe that it is also imperative
4 that critical water supply infrastructure such as
5 water tunnels and aqueducts that are outside the
6 watershed, but which feed New York City, be
7 protected as well, I would expect those
8 protections to be included in the final
9 regulations. I look forward to working with
10 Governor Cuomo--" it goes on, etc., etc. "I
11 would, I once again thank Governor Cuomo for the
12 new direction he's taken with respect to
13 permanently protecting New York City's watershed
14 from high volume, hydraulic fracturing." So, yes,
15 you do have qualifiers in there, but a lot of
16 people just reading that, who aren't familiar with
17 this issue, may go along, may go away with a
18 mistaken impression. I mean, I follow what--

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20 CHAIRPERSON GENNARO: Absolutely.

21 DAVID PABLO: --you've talked about
22 in the past--

23 CHAIRPERSON GENNARO: Absolutely,
24 and I'm not, I'm not on--

25 DAVID PABLO: Right.

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2 CHAIRPERSON GENNARO: --trial here,
3 but--

4 DAVID PABLO: Not at all.

5 CHAIRPERSON GENNARO: --as someone
6 who is trying to, to get something from the
7 Governor, sometimes you have to give a little
8 something to get something. And I was raised that
9 when someone gives you something that you've been
10 yelling and screaming for, even if it's not the
11 full loaf, it's always polite and good manners to
12 say, "Thank you." So that's really where that
13 was.

14 DAVID PABLO: Fair enough.

15 CHAIRPERSON GENNARO: And so, and
16 so it was a, it was very sort of targeted
17 statement, that--and there was, well, and I want
18 to go into a lot of what was behind the scenes
19 there. But it was an attempt on my part at some,
20 let us say, rapprochement, you know, with the
21 Governor's office, and I was told on several - -
22 that like, you know, that would be appreciated.
23 And so, I'm, everything that I say, everything
24 that I do regarding this issue, like has some kind
25 of strategic purpose. That, and that is to, you

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2 know, figure out what I could possibly do--and by
3 possibly, like get to happen, and figure out like
4 how I get to happen. Is it through like saying a
5 word here or doing that, or having a hearing or
6 calling on this or calling on that, or saying
7 thank you or whatever. And so, I'm not perfect, I
8 don't possess a lot of power, but I wouldn't take
9 that statement back by virtue of the fact that,
10 you know, taking the actual area of the watershed
11 off the table, it's, that's not bad news, that is
12 very good news, to do that. It's not enough good
13 news, but I wasn't going to sort of like urinate
14 all over my thank you by sort of like saying that.
15 You know? [laughter] And so--

16 DAVID PABLO: That's a lovely way
17 of putting it.

18 CHAIRPERSON GENNARO: Yeah, well, I
19 mean, there you have it, you know. [laughter] I
20 mean--

21 DAVID PABLO: Okay, so--

22 CHAIRPERSON GENNARO: You know,
23 because the thank you loses a little something
24 when you have to like shake the urine off it, you
25 know what I mean [laughter]

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DAVID PABLO: Certainly.

CHAIRPERSON GENNARO: And so, and so, I'm, I'm just trying to, you know, I'm just trying to--

DAVID PABLO: I haven't had that personal experience myself, but it's--

CHAIRPERSON GENNARO: Right, well--

DAVID PABLO: --that's good to know, that's good to know. [laughter] So, in their absence, I would actually like to address the other members of this Committee, because their pages on the New York City Council site, do not mention hydraulic fracturing at all. And that is an error of judgment. You guys, to a certain extent, have, I mean [laughs] the, the absenteeism at your, at your press conference, as recorded in "Gasland" notwithstanding, you do have a certain amount of bully pulpit, certainly more than a lot of us do. And so I think this issue should be brought to the forefront. I also think that there are certain things that need to be brought into the public dialogue which are not. If Speaker, if Council Member Quinn were here, I would certainly be addressing her directly about this, and I'm,

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2 what I'm talking about is the pipeline that is
3 planned to go into the West Village to bring
4 natural gas at a super high pressure, into the
5 City. A super high pressure that, by the way, the
6 rest of the gas pipe infrastructure in the City is
7 not prepared to handle. Also, that pipeline
8 snakes through Jersey City and Bayonne, with the
9 express purpose of export of liquefied natural
10 gas. I think that's, that's something that needs
11 to be challenged, this pipeline going through the
12 West Village at all. So, if you could address
13 that at some point, I would appreciate it.

14 CHAIRPERSON GENNARO: I don't want
15 to get too far afield. But I would just say that
16 there has been every hearing that happens in this
17 Council or every action the Council takes, or
18 resolution we pass or whatever, means that there
19 are hearings that aren't happening. And she has,
20 you know, dedicated like a lot of the resources of
21 the Council to this issue, perhaps, you know, more
22 Council resources dedicated to this issue than,
23 you know, any other issue I can think of in the
24 last couple years. And I thank her for that, and
25 it's not like she's not getting heat from certain

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2 people about her, you know, willingness to indulge
3 me in my passion of, you know, doing all this
4 fracking stuff. So, she does pay a price for
5 that, and she's willing to pay that price, and I'm
6 grateful that we're having, you know, yet another
7 hearing with the full support of the Council
8 staff, and if she didn't want this hearing to
9 happen it wouldn't happen. So.

10 DAVID PABLO: Okay.

11 CHAIRPERSON GENNARO: Let me just
12 say that about that.

13 DAVID PABLO: Okay. Well, I've
14 concluded my statement, so thank you very much.

15 CHAIRPERSON GENNARO: Okay. No,
16 thank you, thank you. I like you guys, you know,
17 and [laughter] and, well, thank, you know, know
18 that, well, but--And you know what? I was told,
19 David, I would go into some of my statements, and
20 I'm not going to get into that now, but I'm happy
21 to--but what we should do, as another note to
22 staff, but Bill I'll mention this to, that Brad
23 should, Brad's my press guy, should go to the
24 website and put my more recent statements of
25 September 7th and September 9th and of, and

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2 September 14th onto the website, 'cause these are
3 a lot more sort of spicy. I was just kind of like
4 unaware that people actually went to my website,
5 so [laughter] had I known that, I would've, you
6 know, kept it more updated. I haven't been there
7 in like a year, I haven't seen it. I haven't
8 even--But I don't need my website, just look at
9 myself in the mirror like every day, and there I
10 am, you know. [laughter] So, yeah, so like the
11 actual me is, you know, like scary enough, going
12 to like the virtual me. But now--yeah, you can
13 tell it's getting late in the day now. [laughter]
14 But thanks, guys.

15 DAVID PABLO: Thank you.

16 CHAIRPERSON GENNARO: I think this
17 panel, you know, I think they won, so far, you
18 know, all the panels, I think these guys win,
19 yeah. So, who do we have next? [pause,
20 background comment] Oh, oh, okay, yeah, Buck
21 Moorhead, Ellen looks like Weininger, Stephanie
22 Lowe, is who - - looking. [pause, background
23 voices] Thank you. If you can swear in the
24 panel.

25 COUNSEL: Could you please raise

1
2 your right hands? Do you swear or affirm to tell
3 the truth, the whole truth and nothing but the
4 truth today?

5 PANEL: Yes, I do.

6 CHAIRPERSON GENNARO: Okay, Buck,
7 take it away, just state your name for the record.
8 Good to see you.

9 BUCK MOORHEAD: All right. Buck
10 Moorhead, NYH₂O. Thank you, Chairman Gennaro--

11 CHAIRPERSON GENNARO: Sure.

12 BUCK MOORHEAD: --again for,
13 pleasure to see you again.

14 CHAIRPERSON GENNARO: Yep, same
15 here.

16 BUCK MOORHEAD: Get to this time of
17 the testimony, and you got to think of new things
18 to say, after having so many good people coming up
19 talking about this.

20 CHAIRPERSON GENNARO: I have like
21 a, a seemingly endless wellspring of platitudes
22 that are just like in there, I don't know where
23 they come from sometimes. [laughter] You know.

24 BUCK MOORHEAD: Well, I want to say
25 that, you know, having worked on this now for

1
2 probably three years, or three-and-a-half years,
3 and I, I'm not an environmentalist, and not an
4 activist. NYH₂O was formed around protecting New
5 York City's water, and New York State's water,
6 actually was the mission for NYH₂O. But what I've
7 learned and particularly, you know, going through
8 the DEC process and through the DRBC process, that
9 we're making all of the most rational arguments
10 possible about water and about public health, and
11 about the environment. And they are not working,
12 these arguments. And this, I've come to the
13 conclusion that we, you know, really need to
14 reframe this discussion and I think the City
15 Council does also, because I think this--

16 CHAIRPERSON GENNARO: That's what I
17 was talking about with Cathleen Breen or whatever,
18 it's like we're all playing their game, you know.
19 And there's got to be some sort of game changing
20 sort of something. But go ahead, I'm--

21 BUCK MOORHEAD: Well, it's, it's--

22 CHAIRPERSON GENNARO: --eating up
23 your time.

24 BUCK MOORHEAD: --if you saw, if
25 you saw "Jerry Maguire" and Cuba Gooding--

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CHAIRPERSON GENNARO: Yeah, yeah.

BUCK MOORHEAD: --"Show me the money." This is, this is about economics. This is, every, every argument comes down as an economic decision. And the, the argument is that this is good for New York State's economy. And what the, the problem is, is that the, the calculation for this, the economics of it, is simply flawed. I mean, this, in the, certainly not even probably in the near term, I mean, this, I heard, I learned something at all of these hearings, but you know, someone said that, you know, obviously there are transient workers coming in, but it takes 30 years for 90 percent of the jobs to be local. I mean, come on. That's like, forget it. You know. This won't, if we're still doing this in 30 years, we're going to have much bigger problems, if we're extracting shale gas and piping it into our City here. So, but I think that it's important that we, you know, that the, the economics of this be looked at in a much broader sense, the discussions that Hilary brought up about the food, about--I mean, who in New York State's economy, you know, if we have the three

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2 Dallas/Fort Worths sitting out there blowing air
3 pollution into New York City, if we have food that
4 we don't trust coming from upstate, we don't have
5 any more shop local, or eat local kind of food
6 here. We, you know, what's happening to New York
7 City's economy, tourism, who is going to want to
8 be living here? This is an economic problem that
9 we're going to face, and I think we have to, we
10 being us, you know, talking to our representatives
11 to the City Council, to talk about this as an
12 economic decision, like this is going to be a
13 problem. That, up in, in upstate New York, it's
14 everywhere, you know, 'cause you got landowners
15 leasing, they're making money, you've got people
16 living there, they're worried about their public
17 health, they're worried about their jobs, it's
18 very in everybody's faces. Here, we're distant
19 from it, we just don't feel that issue, and we
20 have to have that urgency in New York City that
21 our New York City economy is going to be at risk,
22 and New York State, and this is the message to the
23 Governor, you know, long term, there are, we're
24 going to, we're going to bankrupt the southern
25 tier of New York, if you take forest, you know,

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2 working forests, working farms, and you convert
3 them to an industrial landscape, you know, what's
4 it look like in ten or 15 or 20 years up there,
5 economically. It's, it's going to be a wasteland
6 up there, and if--and we're not smart enough to
7 see that now, I don't get it. I mean, I think you
8 talk to any rational person. Like David, United
9 for Action, they go around to these public, you
10 know, you talk to any person who's never heard
11 about this before, ini about 30 seconds you've got
12 them. They know what's going on. They understand
13 it doesn't make sense. But here we are like years
14 later, and we've got, our governments are, it's,
15 it's like pushing forward--Anyway, that's, I'll
16 end on one, I could ramble on here, but should've
17 probably read something here, but I've got--

18 CHAIRPERSON GENNARO: I like you,
19 Buck, you do whatever you want.

20 BUCK MOORHEAD: [laughs] I got one,
21 one final quote here, which I came across, which
22 was I thought really great. In the words of James
23 Canton, who I don't know who he is, even, but he
24 says, "The Stone Age did not end for the lack of
25 stone. And the oil/gas age will end long before

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2 the world runs out of oil and gas." And I think
3 that the world can and should make do without the
4 shale gas of New York State. And I, we do believe
5 we should just, I don't trust, this could be
6 perfectly, we could have perfect regulations, and
7 perfectly regulate it. We're still having
8 problems. This is not good and we should ban it.

9 CHAIRPERSON GENNARO: And--and our
10 story is so compelling, and so exciting, that, you
11 know, notwithstanding the fact that I was having
12 this hearing today, and every media outlet like,
13 you know, like the metropolitan region knew about
14 it, including the New York Times at like, as
15 written, you know, they're like on our side on
16 this, they did an editorial, couldn't get one
17 member of the media to like show up to this
18 hearing. They're just like not interested. And
19 so, you know, couldn't get anybody in the room,
20 they just like, they don't, they don't care. Even
21 though, even papers that have been active on it,
22 even bloggers that have been active on it, and
23 everyone knows that we do these hearings, they're
24 like good hearings, you know, very juicy stuff
25 comes out. And that's one of the reasons we're

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2 having the hearing, that maybe somebody writes
3 about it in the Times, and it's, and the Times the
4 next day, and then, you know, the Governor's
5 people like, "Oh, geez, well, okay, right, okay,
6 we got to, we got to do something here, guys."
7 And you know, just like with the, just like with
8 the, just like with the New York and Syracuse
9 watershed. I don't think that was based on
10 science, I just felt like they thought they had a,
11 they felt like they had to do something, it was
12 like a tactical thing, just like we're going to
13 sacrifice, you know, the Syracuse watershed, we're
14 going to sacrifice New York City's watershed.
15 'Cause you already had Chesapeake like already one
16 the record, saying, you know, we don't want to
17 mess up New York City's water supply, so you have
18 like Chesapeake was like out in front of like New
19 York State government, you know. And so it's all
20 right, well, you know, we'll give 'em the
21 watershed and we'll, you know, give 'em Syracuse,
22 but that still leaves a lot, you know, for us.
23 You know, but like a 14 mile corridor, wide
24 corridor, about like the buffer, it's like, "Oh, I
25 don't," you know, "we're not giving that." I

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2 mean, this is just, but this just kind of reveals
3 the mindset, where like, you know, every inch that
4 like isn't fracked that could be fracked, is just
5 like, is like a waste. And this is just the
6 mentality. And just the, you know, hubris that
7 would say, "We're not even going to put anybody in
8 the room," like as if this is some, you know,
9 stupid co-op board that didn't--not that, not that
10 co-op boards are stupid. [laughter] But, but--

11 BUCK MOORHEAD: It--part of it,
12 they, one other comment on it, is that the, the
13 DEC has that dual role, which is very
14 schizophrenic, where it's supposed to protect the
15 environment, but it also is charged with making
16 money from extracting resources. That's a serious
17 conflict, they should separate those departments.
18 I mean, that's a, that's a problem.

19 CHAIRPERSON GENNARO: Lots of
20 things should happen that like don't happen. And
21 at the end of the day, everyone's involved in this
22 process, has to look themselves in the mirror when
23 it's all said and done, and so it's like, did I
24 leave anything on the table? Did anything I, I
25 could've done and said or done that and did not.

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2 And, you know, even though I like to think I had
3 something to do with, you know, helping the, you
4 know, watershed to be protected, and you know,
5 something to do with urging the Administration to
6 do that, you know, big body of science that it did
7 back in 2009, 'cause there was some trepidation
8 there, too, because anytime like a local
9 government kind of like really sticks it to the
10 State, you know, it just, it's kind of like
11 sticking it to the principal, you know. Like you
12 might win, but you lose. You know what I mean?
13 So like you argue with the principal, like you,
14 you know, you might win that like one debating
15 point, but like you pay for it for years. So, you
16 know, there was some trepidation with really doing
17 like a huge body of science and just like ram it
18 down, down the State's throat, and the Bloomberg
19 Administration, 2009, was like, "We're doing
20 this." You know what I mean? And so, I and
21 others tried to urge them to do that, and they did
22 a great job.

23 BUCK MOORHEAD: They, they stepped
24 up. I mean, that was--

25 CHAIRPERSON GENNARO: They really

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stepped up.

BUCK MOORHEAD: --fantastic, and I-

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CHAIRPERSON GENNARO: They really stepped up. And that is not, and, and you know, and to stick that right in the State's face, and basically like, you know, make the State choke on that science, which is basically did, and you know, don't think the City of New York is not paying for it in its budget that it tries for, you know, 'cause City of New York always get killed like with regard to the State, 'cause the State just fleeces New York City like we're its own, you know, like, personal, like, ATM. And so, any time you really, as a local government, you know, try to get aggressive with the state, you know, you win but you lose. But the City did the right thing and they're, and they're going to continue to do the right thing. You know, they like working with me, I like working with them, and-- and I'm going to be talking to the Mayor and other people about this within the Administration. And I think New York City government's going to speak with one voice on this. And we're going to get

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2 done whatever we can get done, like with all of
3 your help.

4 BUCK MOORHEAD: I guess, I guess my
5 one point is, is that that conversation should be
6 about that this is an economic problem for the
7 City. It's beyond an envi--the fact that we're
8 going to have public health issues and water
9 issues, become an economic problem, so that it's
10 beyond your Committee, it's the whole City
11 Council, it's the Mayor, that's a problem that
12 everybody can embrace, if we can convince and
13 frame it as an economic problem.

14 CHAIRPERSON GENNARO: Right, but
15 we, you know, have all kinds of studies saying on
16 how wonderful is it going to be, this and that,
17 and so it just, it's hard to figure out, always
18 exact way to approach it. But I think every
19 argument that could be made should be made. And
20 the State has to understand that, you know, the
21 State and like the natural resources of the State
22 belong to the people, and I'm just sorry that the,
23 that the Cuomo folks have sort of, you know, drunk
24 so deep of the Kool-Aid, on this, and that's,
25 that's happened a lot, you know, throughout,

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2 throughout the country, and I think they're think
3 is if we're one inch better than Pennsylvania, and
4 one inch better than Texas, and one inch--we can
5 say that, you know, we're the state that got
6 fracking right. And, and you know, so, who knows
7 what they're thinking, they don't talk to me. But
8 thank you, Buck. And ... oh, okay, who is--

9 STEPHANIE LOWE: Stephanie Lowe.

10 CHAIRPERSON GENNARO: Stephanie,
11 yes, of course.

12 STEPHANIE LOWE: Okay, thank you so
13 much for this opportunity to speak. Thank you so
14 much for the work that you've done on this for
15 year after year after year. And thank you also
16 for your courtesy in speaking to each testifier
17 here today. We really appreciate that. It's,
18 it's not the normal thing. [laughs]

19 CHAIRPERSON GENNARO: I just want
20 people to like me, Stephanie, that's all - -

21 STEPHANIE LOWE: [laughs] Well, I
22 like you.

23 CHAIRPERSON GENNARO: That's why I
24 got into this business. Hasn't worked out for me
25 well, a lot of people don't like me. [laughter]

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2 So, whatever I can get here helps. You know?

3 STEPHANIE LOWE: [laughs] Okay,
4 thanks, thanks for your help, for your, for your
5 very valuable help on this issue. I, there's so
6 many great comments that have been made today, and
7 that's why I've withdrawn the papers that I was
8 going to leave, because some of them duplicate
9 what's been said, which I don't want to do. And
10 also, I was still--your comments at the very
11 beginning of the session here, indicated to me
12 that you know, you really don't want to say "This
13 is the very best that we can get." And that had
14 seemed to be the case, and that was part of what I
15 was going to be talking about today. So, I'm not
16 going to talk about that, clearly you're not on
17 that page. I could not agree more with what Buck
18 has just said. I think that if we rebrand the
19 issue, as an economic one, it will speak to the
20 particular concerns of the people who are on the
21 other side, not the drilling people, of course,
22 but the government people. And, and the public
23 in, in general. We're, we're talking about taking
24 on unproven, inter-economically unproven, of
25 economic benefit, non-proven economic benefit to

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2 the State, if we go ahead with fracking. And we
3 are also in the same breath talking about
4 destroying the currently viable industries that
5 are now sustaining the State, such as organic food
6 production, agriculture's the biggest industry,
7 tourism is another, is the second biggest, I
8 believe. All these things are going to be very
9 negatively impacted by hydrofracking. Real estate
10 is already seeing, just from the threat of
11 hydrofracking, a State slump. Many, I know
12 personally one realtor who's been put out of
13 business after 35 years of a very lucrative
14 career, simply by the hesitation of people to buy
15 into a situation, where they're, they may be
16 buying a property that is adjacent to gas
17 drilling. We, we could be losing our currently
18 lucrative industries simply by going with this.
19 As well as of course the allied dangers that we
20 would get from the cleanup costs that every other
21 state we know about that's been fracked, have had
22 to bear. There's another aspect, something that
23 Al Appleton brought up today. He talked about the
24 danger to New York City's watershed infrastructure
25 from methane explosions, possible methane

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2 explosion. There's also the danger of radiation
3 to our water supply from the, that would be
4 released by deep earth hydrofracking. Should that
5 happen, our water would become immediately non-
6 potable, and that--let me see, I do have that
7 here. [pause] Sorry. Oh, yeah, okay. Should
8 our water, should our watershed fail to deliver
9 potable water to New York City, we have no Plan B
10 to deliver any kind of water to nine-and-a-half
11 million people. It's not even a question of
12 filtration costs or whether it's possible to
13 remediate fractured, irradiated water. The
14 frightening fact remains that if our water fails,
15 we have nothing in that almost unimaginable
16 future, to replace it. That's that. That's
17 really all I have to say.

18 CHAIRPERSON GENNARO: Well, you're
19 making me very sad there, so, you know.
20 [laughter] It's like the last day of summer and
21 everything, and you're, you know, you were bumming
22 me out, you know, but, but, no, I'm just, I'm just
23 trying to create a light moment here. Yeah, it's
24 very serious Stephanie, and tell your State
25 Senator, tell your State Assemblyperson, tell the

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Governor, you know. - -

STEPHANIE LOWE: [interposing] Oh, one thing, one thing--

CHAIRPERSON GENNARO: Tell your co-op board. Tell your church, tell your organization, tell, you know, any, your family, anybody that you're associated with who, who has a phone or a fax machine or an email address.

STEPHANIE LOWE: One, one, one suggestion that you made today, I think is, is very, is very valuable in this, in going forward.

CHAIRPERSON GENNARO: That doesn't sound like, but go ahead with what you're saying.

STEPHANIE LOWE: [laughs] I'll do it anyhow. Your, your suggestion, you said that, that we need a campaign. You see, you saw a lot of bus signs--

CHAIRPERSON GENNARO: Yeah, for like other kinds of big initiatives.

STEPHANIE LOWE: Exactly.

CHAIRPERSON GENNARO: Like had, that were, that needed or were pushed.

STEPHANIE LOWE: Yeah, I think, I think if we were to, as Buck suggested, if we were

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2 to reframe the issue as an econ--as an economic
3 loss to the State, and advertise that in all the
4 places that we could, not only would people become
5 aware of the issue, a lot of New Yorkers are not
6 aware that there is an issue at all. Some people
7 don't even know what the word fracking means. But
8 if we were to expand this concept that we would
9 lose money, and inform people on that basis, I
10 think that that, I think that's a very valuable
11 way to proceed. And I--

12 CHAIRPERSON GENNARO: That is va--I
13 mean, 'cause--Yeah, I mean, it could be like a
14 hearts and minds kind of discussion, get people
15 current. But then it turns into a big debate, and
16 sometimes you should, I don't know, I kind of go
17 back and forth, but--

18 STEPHANIE LOWE: Well, it needs--

19 CHAIRPERSON GENNARO: It's almost
20 like you need, you know, members of the State
21 Legislature and other people to go to the Governor
22 and say, "Hey, man, like I'm getting killed on
23 this. I got like 100 faxes about this yesterday.
24 It's just like, give us a break here. You know,
25 it's just like, this is hurting us," you know,

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2 this is just about politics on some level. But
3 anyway, I'm starting to ramble, sort of like come
4 unglued myself. But I got it.

5 STEPHANIE LOWE: Well, it's been a
6 long--

7 CHAIRPERSON GENNARO: Yeah, yeah.

8 STEPHANIE LOWE: --it's been a long
9 session.

10 CHAIRPERSON GENNARO: It's been a
11 long day, yep. Yep.

12 STEPHANIE LOWE: [laughs] Thank you
13 so much.

14 CHAIRPERSON GENNARO: You bet,
15 Stephanie, you bet. And Ellen, right?

16 ELLEN WEININGER: Yes, yes.

17 CHAIRPERSON GENNARO: 52 Main
18 Street, I'm very familiar with Port Washington.
19 So, when you, you know, turn off Searing Town
20 [phonetic], onto Main, like by the railroad
21 station, or whatever, how far do you have to go to
22 get to 52 Main?

23 ELLEN WEININGER: Actually, that is
24 the address of our main office. I'm in the
25 Westchester office, but that main office is right,

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2 right around, right next to the parking lot for
3 the train station.

4 CHAIRPERSON GENNARO: Oh, fine.
5 Okay.

6 ELLEN WEININGER: Yeah. I mean
7 it's just like right out--

8 CHAIRPERSON GENNARO: So it's up
9 that way.

10 ELLEN WEININGER: --right outside
11 the - -

12 CHAIRPERSON GENNARO: It's not all
13 the way down by Cashuro [phonetic], winds all the
14 way down by Shore Road and Main Street goes down
15 by Shore.

16 ELLEN WEININGER: It's right where
17 there's a sports store right on the corner, and
18 you just--

19 CHAIRPERSON GENNARO: Okay, yeah, I
20 know Port Washington very well, I hang out at a
21 place called Louie's in Port Washington, right on
22 the water.

23 ELLEN WEININGER: Okay.

24 CHAIRPERSON GENNARO: Yeah, when I
25 want to have something to eat and want to be out

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of my district so people don't--

ELLEN WEININGER: They don't know you.

CHAIRPERSON GENNARO: Walk up to me at the table and say, "Councilman, I know I shouldn't be saying this, and this is like not really the time, 'cause you're having dinner with your family, but--" You know what I mean? Then they give me a 15 minute thing on some, something really stupid. [laughter] But, but I don't get that in Louie's 'cause no one knows who the hell I am there. You know, so.

ELLEN WEININGER: Right, right.

CHAIRPERSON GENNARO: Sometimes I have to like flee the jurisdiction just to get a good meal.

ELLEN WEININGER: I appreciate that.

CHAIRPERSON GENNARO: But anyway, it's a, it's a nice, nice place, Port Washington. But please, I digress.

ELLEN WEININGER: Okay, okay. My name is Ellen Weininger, I am the Educational Outreach Coordinator for Grassroots Environmental

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2 Education, which is a nonprofit that focuses on
3 educating the public about common, preventable
4 environmental exposures and the links to human
5 health and environmental impacts. We work with
6 school systems, government, civic associations,
7 environmental organizations, and individuals, not
8 only regionally but nationally, as well. And I
9 wanted to take this opportunity to thank the
10 Council for providing us with the opportunity to
11 give testimony this afternoon, or this evening.
12 And especially for your work on this issue. As an
13 environmental health nonprofit, focused on the
14 relationship between environmental toxins and
15 human health, we write to express our grave
16 concerns about high volumes, like water hydraulic
17 fracturing for natural gas extraction, and the
18 effects its widespread use will have on the people
19 of New York State. Irreversible contamination of
20 our water and air are inherent risks in the
21 fracking process. And therefore are unacceptable
22 by any standard. The New York State Department of
23 Environmental Conservation's revised draft
24 Supplemental Generic Environmental Impact
25 Statement, on the oil, gas and solution mining

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2 program released earlier this month, is deeply
3 flawed and inadequate. We are especially
4 concerned about the exclusion of an analysis of
5 health impacts related to the development of
6 natural gas using high volume hydraulic
7 fracturing. The SGEIS should include a complete
8 assessment of the public health impacts of gas
9 exploration and production, including but not
10 limited to analysis of the existing documentation
11 of the baseline health status of the population of
12 the State of New York, thorough identification and
13 analysis of direct and indirect health effects, a
14 cumulative health impacts assessment, and any
15 potential steps to eliminate these impacts. Such
16 an assessment should include critical information
17 regarding increased costs for healthcare--which I
18 will comment on a little bit later about that--as
19 well as mitigation of air, water and soil, and if
20 mitigation is even possible. And from the
21 information that's been presented here earlier,
22 and other information, that remains quite
23 questionable. A comprehensive health impact
24 assessment should be conducted by independent
25 public health experts, who would also lead an open

1 public hearing and documentation process, with the
2 New York State Legislature. The public comment
3 period for the SGEIS is insufficient and requires
4 a minimum of 180 days so that public health
5 experts can review and comment on the current
6 revised draft SGEIS. Furthermore, the high
7 volume, hydraulic fracturing advisory panel
8 appointed by Governor Cuomo does not include a
9 public health professional at all, and should
10 include an independent medical expert with public
11 health expertise. Fracking requires the use of
12 large amounts of highly toxic chemicals mixed with
13 water, sand, that are forced into the shale under
14 high pressure. Some of this mixture is returned
15 to the surface with additional contaminants,
16 including brine, radioactive elements and heavy
17 metals, and have been drawn from deep below the
18 surface. This material flow back fluid is then
19 removed to evaporation pits or ponds to municipal
20 waste water treatment plants. But accidents
21 happen, we've talked about that. Humans make
22 mistakes, containment methods fail, carelessness
23 and corner cutting are commonplace in the
24 industry. Fracking operations around the country
25

1
2 have been beset with contamination issues. People
3 living near areas of widespread fracking are
4 experiencing health effects. Families are leaving
5 their homes and local economies are suffering. A
6 single fracking operation requires an access road,
7 two to eight million gallons of fresh water,
8 between 10,000 and 40,000 gallons of chemicals,
9 and at least 1,000 diesel truck, trips. Between
10 34,000 and 95,000 wells are envisioned for New
11 York State. Add to this the typical use of heavy
12 equipment at these sites, requiring generators and
13 fuel, when you multiply numbers, it is staggering.
14 The people of New York State understand the
15 consequences of air pollution, the human health
16 impacts of toxic chemicals and the dangerous posed
17 by degradation of our natural resources, and they
18 are beginning to understand the multitude of
19 threats posed by fracking. And it's not just the
20 residents on whose properties the fracking will
21 take place. Ozone and combustion byproducts from
22 a fracking operation can, can pollute the air up
23 to 200 miles away. Almost no area of New York
24 State will be unaffected. And of course given the
25 fact that we're in an unattainment air, air

1
2 standard area in this region, it would be wholly
3 unacceptable to add to those problems. New York
4 State has experienced great success where
5 environmental health issues are concerned. We
6 have adopted to idling regulations for diesel
7 vehicles in our communities and schools. We've
8 worked with other states to our west to protect
9 our air and our land from their air polluting
10 industries, we've protected our clean drinking
11 water sources and we've developed programs to
12 encourage homeowners to employ non-chemical
13 management of their lawns and landscapes. At
14 significant expense, we have restored our great
15 rivers and smaller waterways that have been
16 polluted by industries. We fine industries that
17 illegally dump toxic chemicals into lakes and
18 other bodies of water. These efforts have been
19 undertaken to protect the health and safety of the
20 people of New York State, and they have been
21 effective. This is the kind of environmental
22 protection the people of New York expect from
23 their leadership in Albany. But fracking
24 operations don't play by many of the rules we have
25 so painstakingly put into place. As it's been

1
2 stated already, they are exempt from the
3 regulations of the Clean Water Act, the Safe
4 Drinking Water Act, the Superfund Act and the
5 Clean Air Act. It is therefore absolutely
6 imperative that the leaders of New York State step
7 in where the federal government has failed to
8 protect its own citizens. It would seem that
9 among the most fundamental responsibilities of any
10 elected official is the protection of the safety
11 and health of citizens. We strongly recommend
12 that you urge Governor Cuomo and the New York
13 State Department of Environmental Conservation to
14 take whatever measures are necessary to carry out
15 this most basic responsibility by expanding the
16 public comment period and including a health
17 impact assessment by independent public health
18 experts. And I did want to bring to your
19 attention, and I will submit a copy of this
20 shortly. A recently published study in the
21 Journal of Health Affairs, was published this past
22 May, by Dr. Leo Gisande [phonetic], of Mt. Sinai
23 School of Medicine, and Dr. Ying Wa Liu
24 [phonetic], who's an associate scientist at the
25 National Children's Study, New York. And just to

1
2 briefly state the purpose of this study and the
3 findings, there was a 2002 analysis which
4 documented \$54.9 billion in annual costs of
5 environmentally mediated diseases in United States
6 children. This is just for children alone, and
7 just with environmentally mediated diseases.
8 That's childhood cancer, asthma, autism,
9 neurological disorders. That review was done back
10 in 2002, but the authors of this study felt that
11 there was very few, if any, important changes in
12 federal policy that had been implemented to
13 prevent exposures and felt that they needed to
14 update and expand their previous analysis and
15 found that the costs had escalated. And these, in
16 the study, it indicates this is a conservative
17 estimate, at that, as of 2008, that estimate is
18 now at \$76.6 billion. And that is for children
19 alone. Given this staggering cost, and given our
20 budget constraints and our concerns not only for
21 healthcare but also for providing special
22 education, and other support services that need to
23 be delivered to our children, we're particularly
24 concerned about these issues. We spend a great
25 deal of time in our work focusing on children's

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2 environmental health issues, and given the costs
3 on this issue alone, and given the potential, not
4 only the potential risks, but the certainties of
5 harm involved in hydraulic fracturing. We feel
6 that this is risky business that is quite
7 unnecessary for this state.

8 CHAIRPERSON GENNARO: Thank you.
9 Thank you very much. And I'm very happy to be
10 acquainted with Grassroots. I do think that
11 you've come here and given us some good food for
12 thought in terms of where we next take our, our
13 fight. I'm going to look you guys up next time
14 I'm in Port Washington, so--

15 ELLEN WEININGER: Oh, please,
16 please do.

17 CHAIRPERSON GENNARO: Okay.

18 ELLEN WEININGER: And stop by. I
19 do want to make--

20 CHAIRPERSON GENNARO: And those
21 statements that you--

22 ELLEN WEININGER: Okay.

23 CHAIRPERSON GENNARO: --those
24 studies you have, if you could supply those to the
25 staff--

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ELLEN WEININGER: Yes.

CHAIRPERSON GENNARO: --that'd be great.

ELLEN WEININGER: We'd be happy to do that. I do want to make one other point to emphasize, while there are plenty of people that are looking at commenting, submitting comments for the SGEIS, also reiterating the importance of not only communicating with the governor, and I say this for everyone in this room and everyone everywhere, and I think everyone is already doing this, and has already done this, in sending letters, but also to send copies of those letters to State Legislators and newspapers and to the President of the United States, because I think we need to hold the Governor and the DEC accountable. And I think just sending letters and hardcopy letters, you know, that become part of public record. So that, I just wanted to add that.

CHAIRPERSON GENNARO: Everything helps and, yeah, the more people that participate in this process, the better, make their views known. It looks like Buck wants to have the last word.

1
2 BUCK MOORHEAD: I just want to tell
3 you, we're just going to make sure we don't tell
4 anyone from your district about Louie's.

5 CHAIRPERSON GENNARO: Yeah, please.
6 [laughter]

7 ELLEN WEININGER: Oh, yeah.

8 CHAIRPERSON GENNARO: Yeah. Now
9 I'll be--

10 BUCK MOORHEAD: Be careful about
11 that.

12 CHAIRPERSON GENNARO: That'll like
13 ruin it for me.

14 BUCK MOORHEAD: We'll keep it to
15 ourselves.

16 ELLEN WEININGER: I promise I won't
17 say anything.

18 CHAIRPERSON GENNARO: Yeah. But--

19 ELLEN WEININGER: We may come by,
20 though. [laughter]

21 CHAIRPERSON GENNARO: It's a great
22 place, it's a great place. I want to thank this
23 panel very much, appreciate it. Council Member
24 Levin, I think is going to sit in for me for one
25 panel, while I call my family and tell them like

1
2 where the heck I am. And then, and there's
3 something that I have to deal with there, but so
4 Counsel for the Committee's going to call the next
5 panel. Brad is going to--Steve, Steve is going to
6 see that panel through. And--and that's how it's
7 going to go. Okay.

8 [pause, background voices]

9 COUNSEL: Please raise your right
10 hands. Do you swear or affirm to tell the truth,
11 the whole truth and nothing but the truth today.

12 PANEL: Yes.

13 COUNCIL MEMBER LEVIN: Thank you.
14 Council Member Stephen Levin filling in for
15 Chairman Jim Gennaro. Let's see. We'll start
16 Aviva Rachmani [phonetic].

17 AVIVA RACHMANI: Thank you for
18 pronouncing my name correctly.

19 COUNCIL MEMBER LEVIN: No problem.

20 AVIVA RACHMANI: I'd like to
21 reframe some of these issues, 'cause I've been
22 hearing a lot of the same material, and I'd like
23 to reframe it in a fairly broad stroke. I'm an
24 ecological artist, and I represent about 100
25 ecological artists from around the world, who are

1
2 concerned about these issues. I'm also a
3 researcher at the University of Plymouth in the
4 U.K., and just recently came from a conference on
5 what's called ecological novelty at Monte Verita
6 in Switzerland. And the thrust of the conference,
7 which had most of the top scientists in the world,
8 and some artists, including myself, was that what
9 we're doing to this planet is creating a
10 synergistic effect. And scientists for the first
11 time are now thinking about going very proactive
12 on these issues, because it's not just
13 hydrocarbons, it's not just fracking, it's GMOs,
14 it's a lot of issues, and we don't even have a
15 clue what the interactions are between these
16 elements. I want to raise a couple of points.
17 One is to remind you that there's something at the
18 United Nations called "The Precautionary
19 Principle." If someone is not familiar with that,
20 it basically says that if there's the chance of
21 doing harm, you cannot go forward, if it's going
22 to affect the environment. And I think that this
23 is not just a City or a State issue, it is a
24 global issue, it is part of a global problem that
25 is reaching a tremendous impasse. I remind you

1
2 also of the country of Ecuador that has created a
3 Department of Mother Earth, and is going to the
4 United Nations, this is quite serious, and intends
5 to sue a number of corporations that have
6 destroyed the environment in Ecuador. And that
7 group represents about 3.5 million union workers.
8 So I find them a great source of inspiration, they
9 may be inspiring to you, as well. I'd also like
10 to remind you on the political front of something
11 called the wise use movement. Which destroyed a
12 very important biosphere initiative between
13 Yosemite and Yucatan, it was called the Y2Y.
14 You're familiar with it. It was an initiative to
15 create a biosphere reserve of particular wild
16 lands of great international significance. And
17 the wise use movement understood that this was an
18 extremely evocative metaphor for the entire
19 population, so they destroyed that initiative.
20 And I do not put it past the kinds of politicians
21 we have in some corners today, that this is a
22 deliberate destruction of New York State, this is
23 a calculated process. I remind you of some of the
24 people who have economic interests, such as
25 Cheney, in hydrofracking, and I know that this

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2 sounds perhaps like conspiracy theory, but there's
3 a little bit of documentation behind it in terms
4 of Rove's agenda and the idea of a perpetual
5 Republican nation. I won't go there much further.
6 So, I think that's basically what I have to say.
7 I think it would be a great shame if we lie down
8 and let Karl Rove and Dick Cheney and the rest of
9 the Republican Tea Party run over us, and create
10 great cost to the globe. But I will read what I
11 originally wrote, 'cause it's pretty short. "The
12 debate over fracking is a poisonous red herring.
13 We are facing an artificial choice between
14 poisoning our waters and natural resources, and
15 creating albeit short term, jobs for impoverished
16 people. It is a red herring, an artificial
17 choice, because the real question is why we have
18 allowed indiscriminate, greedy extractors to
19 dominate the political conversation, and
20 marginalize clean energy solutions that would both
21 sustain natural resources and provide long term
22 jobs. A job in extractive polluting industries
23 can last a short time, but the loss of clean water
24 and air will last for many generations and cause
25 far more hardship to many more people than the

1
2 present economic downturn. Support for fracking
3 will benefit a very, very few, primarily those who
4 are already engorged with wealth, and harm untold
5 numbers of people across the planet who are
6 already being impacted today by carbon emissions.
7 I cheer you on in a suit.

8 COUNCIL MEMBER LEVIN: Thank you
9 very much, Ms. Rachmani. R. Frank Edie
10 [phonetic], please. Mr. Edie?

11 FRANK EDIE: Thank you very much.
12 My name is Frank Edie, and I am a constituent of
13 Ms. Quinn's, living in Chelsea for many decades.
14 And an old friend of, and proud friend of the
15 Chairman's. And, you know, through many former
16 battles, going back to what, 1990 or so, I guess.

17 CHAIRPERSON GENNARO: Frank, I
18 think I think I had all black hair back then. You
19 know what I mean?

20 FRANK EDIE: You did.

21 CHAIRPERSON GENNARO: Yeah.

22 FRANK EDIE: Yes, indeed. Well, I
23 had dark hair and beard at the time, right. But
24 I'm here because I see this battle as the critical
25 one. That this State is, the prospects for this

1
2 State are terribly miserable, in many ways if
3 fracking becomes a major part of our economy. And
4 it won't last long. I don't know whether you've
5 seen the recent results of the analyses that have
6 been done by the government, by the federal
7 government, of the claims that the drillers have
8 been making about the amount of available gas
9 that's possible to extract. And what they've
10 discovered is that the estimates that they have
11 been using are probably eight times reality. In
12 other words, there's only one-eights as much
13 gallons, somewhere between an eighth and a fifth
14 of what's actually there, is what are the
15 projections. And that in, as a result, many of
16 the wells that are being drilled even now, and
17 have been drilled, will actually not pay for
18 themselves. Which means that we probably are
19 talking about a bubble economy. And we're talking
20 about a Ponzi scheme, because they're spending
21 more money than they're getting, so the only way
22 to finance it is to bring in more and more outside
23 money, which is in fact the process that's going
24 on now. Most of the investment money going into
25 hydrofracking in this country at this point is

1 from foreign countries. Okay? That's even
2 Sweden, for example. [laughs] Where apparently
3 they don't allow fracking, at least as a regular
4 thing, has been investing billions of dollars here
5 in the fracking process. But the question is how
6 much longer is that going to last? You know,
7 especially given economic conditions at this time.
8 There's going to be less gas to be, you know,
9 they're not even going to be able to sell as much
10 gas as they are, which means that, you know, that
11 there's not in fact going to be money available to
12 continue the process. So, in fact, it may burst
13 within the next ten years or so, in which case all
14 of that, what's been invested in destroying our
15 landscape and our economy will now go down the
16 drain because the money stops flowing. You know?
17 That's what happens with Ponzi schemes: toward
18 the end, you run out, and then everybody suffers,
19 except those people who got out early. Right?
20 So, that's what we're talking about, and
21 economically this may be the downfall of New York
22 State. I mean, what are we going to do if we have
23 thous--millions of people out there in western and
24 northern New York State who have no way of making
25

1
2 a living, and who are now impoverished? Are we
3 going to ignore them? You know, are we going to
4 pony up from New York City to pay their, the cost
5 to at least feed them? But then, you know, and
6 they won't be able to sell their land, you know,
7 it's--

8 CHAIRPERSON GENNARO: Won't be able
9 to farm, either.

10 FRANK EDIE: Yeah, exactly. And
11 that is really critical. So, again, I want to
12 join Buck and so forth in terms of saying that
13 that needs to be really very carefully analyzed,
14 which is not done in the EIS. You know, they're
15 just making estimates based on assumptions, of
16 what is going to happen, and those assumptions,
17 you know, again, the, all of the projections in
18 the EIS are based on models, based, that are based
19 on assumptions, you know, they put in various
20 assumptions and you get results which say that
21 you're going to have, generate billions of dollars
22 in salaries and taxes and so forth. But those,
23 all of those estimates are just based on
24 assumptions. Okay. And you put in different
25 assumptions and you get totally different results.

1
2 And so, we heard Jean Christopherson [phonetic]
3 from Cornell, Professor of Community Development,
4 something of that sort, at Cornell, who's done an
5 analysis of these things, this is what she does,
6 has worked with these things. And she recently
7 put out a very interesting document, which I
8 haven't even gotten a chance to get yet, but it
9 has, analyzes it in some detail, what has come
10 out, you know, the, not the specifics of the DEIS
11 but of prior estimates and so forth of what the
12 State could expect in terms of economic
13 development and income. And as well as doing
14 further analyses, you know, based on other
15 assumptions. So, that, I'm sorry I didn't bring
16 along the stuff. I'll try to get to you if you'd
17 like.

18 CHAIRPERSON GENNARO: Anything you
19 got, Frank.

20 FRANK EDIE: Yeah.

21 CHAIRPERSON GENNARO: As always.

22 FRANK EDIE: So that, that's,
23 that's one issue which, you now, I think put right
24 up in front. And number two, something that
25 hasn't even been talked about, that's radon.

1
2 Okay? Most people don't realize, but natural gas
3 in the U.S. comes with radon. That's a flat, true
4 statement. There is no natural gas that's
5 produced in the U.S. that does not contain radon.
6 Okay, radon is a radiologically active element.
7 Okay? And it comes in through the, with the gas.
8 It's, comes out of the same strata and so forth.
9 The reason it does that is because it's a daughter
10 product of radium. Okay, radon/radium. Father
11 and daughter.

12 CHAIRPERSON GENNARO: Well, radon
13 is an element. Radon is one of the noble gases.

14 FRANK EDIE: It is indeed.

15 CHAIRPERSON GENNARO: Yeah.

16 FRANK EDIE: Okay. And they, the
17 gas company--

18 CHAIRPERSON GENNARO: Helium, neon,
19 argon, krypton, radon, xenon.

20 FRANK EDIE: There you go.

21 CHAIRPERSON GENNARO: Huh? Who's
22 good here.

23 FRANK EDIE: All right.

24 CHAIRPERSON GENNARO: [laughs]

25 FRANK EDIE: Yeah, no, okay. As

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you may--

CHAIRPERSON GENNARO: I think Steve is impressed there. [laughter, background comments] Right.

FRANK EDIE: Yeah, right.

CHAIRPERSON GENNARO: Right.

FRANK EDIE: And that's one of the reasons it's so dangerous. Is because there's basically no way to get it out. Because it's like gold, there's just nothing that sticks to it, you know. And so, it comes, now, too, with the gas, the, but, and in fact they, the gas companies fallaciously make the claim that, "Well, it's not a problem because it doesn't bond to methane." Bond? You don't have to bond. The point is that there's no way to get out radon because it's a noble gas. There's nothing that will attract it. But it comes with it. Okay. And the reason it comes with it is because it's a daughter product of radium. Radium is in the ground, it's in the shale, together with natural gas. They go together regularly. And if you've read the Times articles about the gas from Pennsylvania, or not the gas, but the fracking in Pennsylvania, you

1 know that there is a large, very high level of
2 radium. And uranium, which is the mother of
3 radium, by the way. Okay. Which is the mother of
4 radon. Anyway, there's both of those come in very
5 definite characteris--or contact with the methane.
6 It's, that's, for whatever reason, and then those
7 billions of years ago, the, there were levels of
8 radium and uranium that collected together--

10 CHAIRPERSON GENNARO: Naturally
11 occurring, yeah.

12 FRANK EDIE: It does. Okay. And
13 what--

14 CHAIRPERSON GENNARO: Just like a
15 lot of the brine that comes out with like, you
16 know, regular drilling.

17 FRANK EDIE: Yep, right.

18 CHAIRPERSON GENNARO: Where--

19 FRANK EDIE: Brine which is
20 incredibly high levels.

21 CHAIRPERSON GENNARO: --so-called
22 conventional, you know, drilling for oil and gas.
23 The vertical drilling, that stuff gets reinjected
24 back into the ground, like into the same
25 formation, 'cause we don't want that stuff up

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here.

FRANK EDIE: Yeah, but, there's only limited numbers of them, and you can only do that if they're, you have strata which will contain it, and not allow it to migrate, which--

CHAIRPERSON GENNARO: Right, which is, you know, the EPA has this underground injection control program, which anytime you're taking, you know, fluids that contain hydrocarbons and other kinds of elements, and you're, you know, putting them back in the ground, it's like under the supervision of the underground injection program, of the Clean Water Act, and so the federal government strictly monitors and regulates like the \$2 billion gallons or so per day, of the water that's produced with the conventional drilling, you know, that getting reinjected back to the ground, but they, you know, don't do anything like with regard to fracking fluids, which also doesn't make any sense.

FRANK EDIE: Yeah.

CHAIRPERSON GENNARO: And so, yeah.

FRANK EDIE: Well, I've known some people in Florida and other places it's, they're

1
2 not too happy about EPA's authority in regulating
3 it even there.

4 CHAIRPERSON GENNARO: Oh, yeah,
5 don't get me started, yeah.

6 FRANK EDIE: Yeah, yeah. Okay.
7 But, so, I mean, but this, again, is very
8 dangerous stuff, because the radium and uranium
9 levels in the shale in Pennsylvania, which of
10 course is Marcellus and--

11 CHAIRPERSON GENNARO: Mm-hmm.

12 FRANK EDIE: --okay, very high.
13 Thousands of times higher than is considered safe
14 by the EPA, and so forth. Okay? The amount of
15 radon in the natural gas is a direct result of the
16 amount of radium in the gas, in the strata where
17 the gas comes from. Okay? That--Okay. Now, and
18 the Marcellus Shale is this particularly, well,
19 the shale, in general, is a very good depository
20 for radon because it's constantly, the gas is
21 constantly in contact with the radium. You know,
22 so it's always carries some radioactive element,
23 or some radon. Okay. And when it comes up, it
24 mixes with the fluid and the natural gas, it comes
25 out in a, in a liquid base, which is, then has to

1
2 be separated from the gas. Or vice versa. It's
3 actually easier to get the gas from the water,
4 than--but anyway. So, when that happens, the
5 radon goes right along with the natural gas, which
6 actually isn't just methane. You know, there are
7 several other--

8 CHAIRPERSON GENNARO: Right, right,
9 right, sure.

10 FRANK EDIE: --gases as well that
11 is methane, which is probably the main one. Okay,
12 anyway. There's, as I said, there's no easy, in
13 fact, effective way of separating radon from
14 natural gas. Okay. Now, the--the oil driller are
15 claiming that because they don't bond, they don't
16 stay together. No? Really? This is just a total
17 red herring. Okay, the point is, there is no way
18 they can separate them. Because--

19 CHAIRPERSON GENNARO: Right.

20 FRANK EDIE: --there is no way to
21 differentiating, that is getting that noble gas
22 out of the methane.

23 CHAIRPERSON GENNARO: So, Frank,
24 what you're saying is that they, is that when you
25 burn the natural gas, you burn the radon and like

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where is this going?

FRANK EDIE: You don't burn the radon, the radon is noble, it doesn't burn.

CHAIRPERSON GENNARO: Right.

FRANK EDIE: Okay. It comes out as radon, and I've been breathing it from my gas stove for 30 odd years, and I have lung problems. Which I've never, I've never smoked, I've never lived in a really heavily, you know--

CHAIRPERSON GENNARO: Right.

FRANK EDIE: --chemical infected areas, but I have lung problems.

CHAIRPERSON GENNARO: You got a ventilated fan, you got a--you have the fan with the gas stove?

FRANK EDIE: Yeah.

CHAIRPERSON GENNARO: Yeah.

FRANK EDIE: Yeah, actually I don't, I have a passive vent.

CHAIRPERSON GENNARO: Oh, I see. I see.

FRANK EDIE: I have a passive vent. But, anyway, radon is the second leading cause of cancer, lung cancer, in the U.S., period, end of

1
2 story. Okay. Second leading, we know what the
3 first is, right? And it is, according to the EP,
4 there is not safe level of radon. Zero, there's
5 none. Okay. So, we're always, we've always been
6 breathing radon, if we have natural gas, if we
7 burn natural gas.

8 CHAIRPERSON GENNARO: Right.

9 FRANK EDIE: But--

10 CHAIRPERSON GENNARO: So the radon
11 problem was not created with fracking, and so
12 that's almost like a larger issue, it's just like,
13 everyone's known that for a long time.

14 FRANK EDIE: Exactly.

15 CHAIRPERSON GENNARO: So--

16 FRANK EDIE: But, but--

17 CHAIRPERSON GENNARO: We've
18 already--

19 FRANK EDIE: --what's new--

20 CHAIRPERSON GENNARO: --sort of
21 bought into that.

22 FRANK EDIE: What's new is that
23 radon has a half-life of only three--three-and-
24 three-quarter days. Okay. Which means that after
25 three-and-a-half, three-and-three-quarter days,

1
2 half of the amount of radon has now become
3 something else, another radioactive gas. Or not,
4 sorry, another radioactive element. Which may or
5 may not be a gas, depending on which path it
6 takes.

7 CHAIRPERSON GENNARO: Right.

8 FRANK EDIE: Okay. Depending on
9 how it degrades. But, in the past--

10 CHAIRPERSON GENNARO: We're going
11 to have to wrap up soon, though, Frank, you know.

12 FRANK EDIE: I understand. In the
13 past, we were getting gas from Texas, and west.
14 And Louisiana. Okay. It took several days to get
15 here. Okay. That means that half of the
16 radioactivity was already gone.

17 CHAIRPERSON GENNARO: Right.

18 FRANK EDIE: Okay, not only that,
19 but in fact, most of those, the gas we got had
20 relatively low levels of radon in it. The
21 Marcellus radon levels are many, many times the
22 levels of the Texas levels. Okay, we know that
23 because of the levels of the radium that have been
24 measured and analyzed.

25 CHAIRPERSON GENNARO: What I'm

1
2 going to do Frank, is I'm going to ask the Council
3 to commit to like look into that.

4 FRANK EDIE: Okay, and we are
5 getting, right now, natural gas from Pennsylvania
6 from that area, where no measures have been done,
7 and tried to determine how much radium, radon is
8 in it, but it gets here within less than a day.
9 Okay, from Pennsylvania. It took like a week or
10 two--

11 CHAIRPERSON GENNARO: Right.

12 FRANK EDIE: --from, but it's just
13 less than a day here. Okay. So we're breathing
14 thousands of times the level of safe radon,
15 thousands, and there isn't a safe level, but, but
16 you know, but that might be safe.

17 CHAIRPERSON GENNARO: We're going
18 to jump on this, Frank. You know, I really, we'll
19 take a look at it, but I just kind of have to move
20 it along here a little.

21 FRANK EDIE: Okay.

22 CHAIRPERSON GENNARO: My wife's
23 getting mad, you know. [laughter]

24 FRANK EDIE: Okay. Oh, one other
25 quick thing. Okay.

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CHAIRPERSON GENNARO: Which I didn't know, by the way, about the radon thing, and about the increased level in the local stuff, yeah, so, I do appreciate it, but I got to move on, but if you have one last point, make it.

FRANK EDIE: I have one last point. Again, the whole business about geology, you know, you know a lot more about this.

CHAIRPERSON GENNARO: Yeah.

FRANK EDIE: But, I just, the other day, I experienced my first earthquake. Okay. Where did that earthquake take place? West Virginia.

CHAIRPERSON GENNARO: Yeah, Virginia.

FRANK EDIE: West Virginia.

CHAIRPERSON GENNARO: Yeah, it's like, Mineral, Virginia, right?

FRANK EDIE: Right, okay.

CHAIRPERSON GENNARO: Mineral, something like that, yeah. Right.

FRANK EDIE: Okay. Now, we're talking--

CHAIRPERSON GENNARO: It was a 5.9.

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Like nothing to worry about.

FRANK EDIE: Right. But I felt it here, people in Maine felt it, I think even Nova Scotia, some people felt it. Okay?

CHAIRPERSON GENNARO: Who knows what they're going up in Canada? I don't know what they're thinking.

FRANK EDIE: Okay, well, it's not them, it's how things travel in the geology that's--

CHAIRPERSON GENNARO: Right.

FRANK EDIE: Okay?

CHAIRPERSON GENNARO: It's not like the West Coast.

FRANK EDIE: And now we're talking about thousands of explosions, tens of thousands, hundreds of thousands of explosions, in New York, in rock that--

CHAIRPERSON GENNARO: Right.

FRANK EDIE: --we don't know, we know it's relatively unstable.

CHAIRPERSON GENNARO: And we talked all about like in micro si--and we talked all about the micro-seismic stuff and the propagation

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of fissures and all that.

FRANK EDIE: And, right, and I'm wondering, is ten miles really enough? I mean, if I can feel an earthquake 200 miles away--

CHAIRPERSON GENNARO: Yeah, but, but the Richter Scale is like a logarithmic scale, so like 5.9 is like about a zillion times, or maybe like, yeah, it's like a zillion times--

FRANK EDIE: No, no, no, no, no, no. No, these explosions are thousands of pressure--of atmospheric pressures, in terms. They're not so far away from, they're small, but they don't involve big pieces of earth moving, or of rock moving. But--

CHAIRPERSON GENNARO: We all understand that, that the, you know--

FRANK EDIE: But I'm saying--

CHAIRPERSON GENNARO: --micro-seismic phenomenon is something that we don't really have a handle on.

FRANK EDIE: Exactly.

CHAIRPERSON GENNARO: Yeah.

FRANK EDIE: Exactly. And we're taking great risks.

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2 CHAIRPERSON GENNARO: The USGS made
3 that in their statement, and so, you know--

4 FRANK EDIE: Right, right.

5 CHAIRPERSON GENNARO: --we're on it
6 like stink on a monkey, you know, but at least us,
7 we got to get like the State to kind of, you know,
8 but into that a little more.

9 FRANK EDIE: Okay.

10 CHAIRPERSON GENNARO: I like
11 monkeys, but they do stink. [laughter]

12 FRANK EDIE: All right, and thanks
13 for listening.

14 CHAIRPERSON GENNARO: Right, okay,
15 thank you, Frank. Always a pleasure, always a
16 pleasure. Now, does that complete the panel?
17 [background comments] Oh, okay, fine, fine, fine,
18 fine. Thanks, Frank.

19 BRAD BROOKS: Hello, my name is
20 Brad Brooks. I appreciate this opportunity.

21 CHAIRPERSON GENNARO: Sure.

22 BRAD BROOKS: I'm not involved with
23 a, one of the many groups here. I've actually
24 supported a handful of them over the years. I
25 live in New York City, I own some property

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2 actually in Sullivan County. So, I've actually
3 seen you speak a couple times in the past few
4 years, and so I do appreciate--

5 CHAIRPERSON GENNARO: Oh, sure.

6 BRAD BROOKS: --you trying to bring
7 this, more attention to this issue.

8 CHAIRPERSON GENNARO: Trying, yeah.

9 BRAD BROOKS: I think, and what I'd
10 add to what's been said here today, is I think--my
11 background is not geology or environmental
12 science, I work in finance; I have economic and
13 finance degrees, I'm a certified financial
14 analyst, I've got 20 years of experience in
15 professional money management--when I became aware
16 of this issue about three years ago and started
17 looking into it, it seemed to be clear, you know,
18 there are serious pollution issues that a lot of
19 other people brought up. What I find a little
20 disturbing for the City and the State is that no
21 one really talks that much about the financial end
22 of it. What are, in economic terms, the cost-
23 benefit analysis. Some people brought up the
24 whole health issue. Clearly, you know, you're
25 potentially looking at tens of millions of dollars

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2 in costs, for the City and the State there. One
3 of the other issues I bring up is in terms of the
4 filtration of the water. Somebody else pointed
5 out that if New York City did have to filtrate
6 their water, you're looking at, those estimates
7 are \$10-\$15 billion. I think you're probably
8 aware that if they ever had to do that, there'd be
9 cost overruns, so you're probably realistically
10 looking at \$20-\$25 billion, just in costs for the
11 City. Another smaller example would be, if you
12 look at tourism dollars generated just in the
13 Delaware Valley, you're talking about \$25 billion
14 of revenue. I think if something like this goes
15 through, you're looking at the majority of those
16 revenues disappearing, which is billions of
17 dollars in tax dollars for the State. Now why is
18 this being done? Apparently for jobs. This is a
19 jobs creation bill, right? But I, from what I can
20 figure out, you're talking about potentially a few
21 thousand jobs, most of which will come from people
22 who work in Oklahoma and Texas, who'll be truck
23 driver sand drillers, and they'll come here for
24 two, three, maybe four years, and they'll generate
25 maybe a few hundred million dollars in tax

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2 revenue, and then you'll be saddled then with
3 billions, if not tens of billions, of costs. And
4 actually, I guess from a personal standpoint,
5 since I own land in Sullivan County, people like
6 me then will have to fix the roads, we'll be on
7 the hook for basically these water filtration
8 plants that most people have already admitted
9 here, you can't fix this water once you've done
10 this to it. And you know, these are costs that
11 are being borne by people here. So, the benefit's
12 incredibly small, you know, hundreds of millions,
13 maybe billions; the cost for the State and the
14 City, tens of billions, at least. Who's the real
15 beneficiary? A handful of energy companies who
16 clearly are doing a good job of lobbying people
17 like Governor Cuomo. That's, I guess, all I
18 really wanted to say. But I think the message
19 clearly is, as one person said earlier, this is a
20 game you can't win, I think it was Al Appleby,
21 this is game not to play.

22 CHAIRPERSON GENNARO: Right.

23 BRAD BROOKS: New York State
24 should, like Pennsylvania--

25 CHAIRPERSON GENNARO: Only way to

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win is not to play, or something like that.

BRAD BROOKS: I mean, I guess the only thing I would mention, also, is that I think I find disturbing that when you look more seriously at this issue, energy producing states like Oklahoma and Texas, taxes very heavily at the extraction. They monitor it, what's coming out of the ground, and they tax it. That's not been proposed at all in New York State. So, New York State will get virtually nothing from this, as Pennsylvania has, Pennsylvania's made that mistake, also. But if you look at the states that actually do this professionally, they tax the hell out of it. So that would be, if for some reason this does go through--

CHAIRPERSON GENNARO: Right.

BRAD BROOKS: --there should be some serious taxes. On top of it, as I think Mr. Appleby pointed out, a fee just to pay for all the regulation that's going to be necessary.

CHAIRPERSON GENNARO: Right. But sadly, that's almost, what you're talking about is like, you know, more for discussion with like the Governor's folks when they were trying to come to

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2 grips with whether or not they were going to try
3 to advance this in the state, and you know,
4 whether it made sense to do this. They're past
5 that. And--

6 BRAD BROOKS: Well, but they got
7 the lawsuit, this is something to bring up: What
8 is the cost - -

9 CHAIRPERSON GENNARO: [interposing]
10 Yea, but I--

11 BRAD BROOKS: --has a study been
12 done, a serious one?

13 CHAIRPERSON GENNARO: Yeah, but,
14 but--

15 BRAD BROOKS: Clearly, the numbers
16 would point out, this is a huge mistake, I think.

17 CHAIRPERSON GENNARO: But the way
18 governments works, sadly, is that they're already
19 past that decision point, whether they want this
20 to proceed. And so that puts--

21 BRAD BROOKS: Well, the Attorney
22 General doesn't seem to.

23 CHAIRPERSON GENNARO: He, well--

24 BRAD BROOKS: You obviously don't.
25 I mean, I assume that's why you have a hearing

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2 like this because it's not, it's not a done deal
3 at this point, right?

4 CHAIRPERSON GENNARO: Yes, but, but
5 ... but the Attorney General's been very careful
6 to sort of, you know, go after like the DRBC, and
7 you know, not so much the State, because when this
8 goes through, and all of the, and--

9 BRAD BROOKS: The SEC's involved,
10 also, I mean, not to get too financial--

11 CHAIRPERSON GENNARO: Pardon?

12 BRAD BROOKS: Look, the SEC's
13 involved, finally, the last month they've come out
14 saying, "Gee, we made a mistake three-and-a-half
15 years ago when we gave you incredible latitude,"
16 as one of these other persons talked about, in
17 terms of what are the reserves? No one really
18 knows, that's guesswork.

19 CHAIRPERSON GENNARO: Right, but
20 that's all, sadly, all that is, all that is now
21 besides the point. And, and--

22 BRAD BROOKS: Well, it's part of
23 how many jobs we've created, right?

24 CHAIRPERSON GENNARO: And for--

25 BRAD BROOKS: If that's really the

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reason this is being done in New York State--

CHAIRPERSON GENNARO: But they--

BRAD BROOKS: --which is supposedly
the rationale.

CHAIRPERSON GENNARO: They've put
the, the, they've put the train on the track and
they want to, you know, send it.

BRAD BROOKS: No, I understand
that.

CHAIRPERSON GENNARO: Yeah. And,
and so, now that the train is on the track,
there's this, there's this environmental,
regulatory, you know, gauntlet that it has to go
through, and like that's where we are now. And
all of these other kinds of things that make
terrific sense, were part of the discussion that
would go into, you know, do we want to put the
strain on, on the track, and do we want to do
this? They have clearly made that decision, and,
and--

BRAD BROOKS: Well, I'm not sure
I'd go that far.

CHAIRPERSON GENNARO: Well, they
made the decision, and the Governor, this Governor

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2 and the Governor before that, you know, feels that
3 this is in the best interest of the State, and
4 best interest of the economy, and they're already
5 past it. That's like not even at issue. It's
6 like not even at issue. It's almost like it
7 doesn't matter anymore, because, you know, now
8 we're, you know, in the regulatory process. And
9 they've, they've stated very clearly that this is
10 what they want to do, and they're past all of that
11 decision making about, like they're gone that.

12 BRAD BROOKS: Right, well, I guess-

13 -

14 CHAIRPERSON GENNARO: I mean--

15 BRAD BROOKS: Well, I guess what I
16 would add is, if there were regulations put in
17 place--

18 CHAIRPERSON GENNARO: [interposing]

19 If we were to have like, you know, some other
20 Governor, that who, you know--

21 BRAD BROOKS: No, no, no, I think
22 if there are real regulations, as Mr. Appleby
23 talked about, the cost would truly reflect what it
24 cost for these energy companies to pull it out of
25 the ground. I think the other thing, as a

1 professional investor, the reason why I sold these
2 companies several years ago, is financially it
3 makes no sense for them, and I think this
4 gentleman referred to this. I wouldn't say it's a
5 Ponzi scheme, I refer to in a Bloomberg interview
6 a couple months ago, this is an Enron-lite
7 accounting scandal. You basically have very small
8 energy companies doing drilling as quickly as they
9 can, so they can grossly exaggerate, I'm not sure
10 if the number is eight or ten, but the SEC just
11 made them write it down by 80 percent, just a
12 month ago, so clearly there seems to be some
13 exaggeration on what these reserves are worth.
14 Now, if you actually made these companies pay for
15 certain things, they might decide not even to do
16 this, because you know what? They're losing
17 money, doing this.

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19 CHAIRPERSON GENNARO: Well, not
20 only that--

21 BRAD BROOKS: - - sad fact of it.

22 CHAIRPERSON GENNARO: And if there
23 was--

24 BRAD BROOKS: We'll be left holding
25 the bag for it, unfortunately.

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2 CHAIRPERSON GENNARO: And also, if
3 there were the environmental regulations in place-
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5 BRAD BROOKS: Well, that's still
6 being discussed, right?

7 CHAIRPERSON GENNARO: Well, but,
8 but I mean, we're never going to get the kind of
9 environmental regulations we want, but--if there
10 were perfect, if there were a perfect set of
11 regulations that would make the gas companies pay
12 the full cost of production for bringing their
13 product to the marketplace--

14 BRAD BROOKS: Pay for production -

15 -

16 CHAIRPERSON GENNARO: [interposing]
17 And you didn't have like a natural environment,
18 and air and water and people's lungs and kids
19 lungs, you know, bear some of the, you know, costs
20 of bringing this to the marketplace, because why
21 pay for it when you can have like some kid's
22 lungs, you know, taken in, and like why don't we
23 put it in the water, why don't we put it in the
24 air, like, it doesn't go away. And so--

25 BRAD BROOKS: - - that's a second

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2 or third derivative, I mean, I'm talking about
3 even more basic things like, "Who will pay for
4 it?" People pointed out, it would take two or
5 three years to build a filtration plant. Has that
6 been done yet? No.

7 MALE VOICE: No, 15 years.

8 BRAD BROOKS: Well, but I mean,
9 obviously none of these things have been done.
10 From what I've seen of these companies, they want
11 all this water for free, they want billions and
12 billions of gallons of water for free. Now, I
13 don't really understand why I would have to pay
14 much more than they do. Now, I know, I know part
15 of it goes back to this--

16 CHAIRPERSON GENNARO: But that's,
17 yeah.

18 BRAD BROOKS: --energy independence
19 movement, and it's a job program--

20 CHAIRPERSON GENNARO: Yes, but--

21 BRAD BROOKS: --these are two
22 fallacies.

23 CHAIRPERSON GENNARO: --and this
24 is, and the fact that it's completely based on
25 fallacy, like almost doesn't make a difference at

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this point, because--

BRAD BROOKS: That's a sad statement for--as you say, I think, for New York and the United States.

CHAIRPERSON GENNARO: Right. And so, I can't go to the Governor and say, "You guys made a mistake, and this doesn't make any sense."

BRAD BROOKS: Well, someone should, right? That's--

CHAIRPERSON GENNARO: We're past that.

BRAD BROOKS: I've heard - - interview, but--

CHAIRPERSON GENNARO: So now, you know, we have the battlefield that we're on now, you know, which is the environmental and regulatory battlefield, which comes after all, all of the decisions that led to--I mean--

BRAD BROOKS: Have some new regulations, and some more costs - -

CHAIRPERSON GENNARO: If this were--
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BRAD BROOKS: Right?

CHAIRPERSON GENNARO: I'm a City,

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2 and so, I don't set those regulations. I'm just
3 trying to fight the dragon in the best way that I
4 know how.

5 BRAD BROOKS: I appreciate what
6 you've been trying to do, but--

7 CHAIRPERSON GENNARO: And I think
8 the coliseum that I'm in now, is the
9 environmental, you know, regulatory coliseum, and
10 you know, not some other coliseum where this whole
11 thing was like being discussed, like is this is a
12 good idea, or is this fracking, you know, built on
13 like a mountain of lies or not. It's just like,
14 we passed that, that was like eight stops ago.

15 BRAD BROOKS: Well, but as Mr.
16 Appleby--yeah, but as Appleby pointed out,
17 Appleton, there should probably be a lawsuit by
18 New York City--

19 CHAIRPERSON GENNARO: Yes.

20 BRAD BROOKS: --against the State,
21 saying if our water is polluted, we're not on the
22 hook for the \$15 or \$20 billion, the State is, or
23 the energy companies, right?

24 CHAIRPERSON GENNARO: We can't--

25 BRAD BROOKS: I mean, at a certain

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point, you can't - -

CHAIRPERSON GENNARO: [interposing
It wouldn't be based on that.

BRAD BROOKS: --process onto the
people here,

CHAIRPERSON GENNARO: It wouldn't
be based on that. It would be based on--

BRAD BROOKS: Well, that's
something to think about, I would think. Right?

CHAIRPERSON GENNARO: It's
certainly ... [crosstalk] I'm certainly willing to
think about.

BRAD BROOKS: --they'll probably
leave the State. People who are high tax payers
are going to leave the State over this, if this
goes through.

CHAIRPERSON GENNARO: And I
wouldn't blame people for doing that. And so, but
I, what I'm saying is that we're, you know, on the
battlefield we're on, and if the battlefield is
the environmental regulatory battlefield, and we
are successful in making it so unpopular for the
Governor to, you know, try to advance this, like
without the proper environmental regulations, and

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2 if the companies are forced to pay, you know, the
3 full cost of production of bringing the product to
4 the marketplace, like you know, they just won't do
5 it. And so--

6 BRAD BROOKS: Exactly.

7 CHAIRPERSON GENNARO: And so, I
8 think it's more--

9 BRAD BROOKS: Well, that's the way
10 it should work, actually, we shouldn't be
11 subsidizing pollution. In a nutshell, that's what
12 we're doing.

13 CHAIRPERSON GENNARO: Of course.

14 BRAD BROOKS: Subsidizing
15 pollution. - -

16 CHAIRPERSON GENNARO: [interposing]
17 I mean, to--

18 BRAD BROOKS: --polluting, sadly.

19 CHAIRPERSON GENNARO: And to take
20 this one step--

21 BRAD BROOKS: Just try to - -

22 CHAIRPERSON GENNARO: [interposing]
23 Farther back, it's the whole absence of the
24 federal government regulation which is creating
25 this paradigm--

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2 BRAD BROOKS: Then why aren't we
3 waiting for the EPA? The EPA is supposedly
4 reviewing this, right? I mean, I would think that
5 there should be - - at least--

6 CHAIRPERSON GENNARO: The
7 government--

8 BRAD BROOKS: --till the EPA
9 finishes its - -

10 CHAIRPERSON GENNARO: [interposing]
11 The Government has made a determination he's not
12 waiting for the EPA. And so, no one's waiting for
13 the EPA. And so, and with--

14 BRAD BROOKS: And the rationale is-
15 -

16 CHAIRPERSON GENNARO: And then what
17 the Tea Party and everyone else, who knows like
18 what the EP--who knows what the EPA's going to
19 look like it, you know, 2013. In 2013, we may not
20 have an EPA, you know. And--

21 BRAD BROOKS: Well, it sounds like
22 it can't be much worse, given what their line of
23 thinking's been so far. But at least, to me, we
24 should probably wait to see what the study does
25 say. I would think at this point. I mean,

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2 clearly there've been serious concerns raised.
3 Like I said, I'm not a geologist or an
4 environmental scientist--

5 CHAIRPERSON GENNARO: Right.

6 BRAD BROOKS: --but it's obvious
7 there are definitely externalities I guess is what
8 you call it in economic terms form this.

9 CHAIRPERSON GENNARO: Absolutely,
10 what they're--

11 BRAD BROOKS: -- not being paid
12 for.

13 CHAIRPERSON GENNARO: That's what
14 they're called, and that's what all, you know,
15 environmental agencies are supposed to do, kind of
16 like regulate the, you know ,these kinds of
17 externalities, and they're really making a
18 determination as to how much of the cost of
19 production, you know--

20 BRAD BROOKS: Are they? 'Cause - -

21 CHAIRPERSON GENNARO: [interposing]
22 Like the people are going to have to bear--like
23 that's what all environmental regulations--DEC--

24 BRAD BROOKS: Well, I'm sorry, it's
25 like, it's almost laughable that some of this

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2 stuff we talked about earlier, I mean, it's called
3 horizontal fracturing.

4 CHAIRPERSON GENNARO: Right.

5 BRAD BROOKS: Why would anyone
6 think 500, 1,000, 2,000 feet, as other people
7 point out, they go a mile or two horizontally.
8 That's almost, it's almost laughable what the DEC
9 has come out with, so far.

10 CHAIRPERSON GENNARO: I think it's
11 more than laughable. But I'm not the Governor,
12 and I'm not the DEC, I'm trying to sort of fight
13 them on like the battle ground which has been
14 created and thinking of, you know, very creative
15 ways to try to say like, you know, we shouldn't
16 play this game at all. We should, you know,
17 somehow change the game. But it's not going to be
18 through trying to convince them that they should
19 not have done this in the first place. They,
20 we're, we're just way past that.

21 BRAD BROOKS: Well, as I said,
22 clearly there should be some sort of realistic
23 environmental regulations in New York State, I
24 guess, is what I'm hoping for, then.

25 CHAIRPERSON GENNARO: And those

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2 people who have like sole authority to do that,
3 we're going to try to force them to do the best
4 job that they, you know, possibly can do, or
5 otherwise we're going to try to come up with some
6 ways to sue them and, you know, trip them up or
7 whatever. But it's not going to be, you shouldn't
8 have tried to do this like in the first place.

9 I'm just saying, sadly, we're way past that. And
10 they've already, as I've said before, you know,
11 drunk deep of the Kool-Aid on this, and they
12 believe all the hype and all the jobs and people
13 walking around, it's, you know, getting \$500,000
14 checks and a quarter million dollar checks, for
15 like leasing their, you know, property to gas
16 companies. And it's very appealing to the
17 politicians to say, "I'm going to figure out a way
18 that this company is going to take from their
19 pocketbook and give to all my constituents," like
20 you know, checks for a quarter million dollars.

21 "And I'm going to say, 'I made that happen.' And
22 they, in their own way are going to tell me, as
23 Governor, 'Thank you.'" And so--

24 BRAD BROOKS: Well, I understand
25 that angle, but I, as I said--

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2 CHAIRPERSON GENNARO: We're past
3 that.

4 BRAD BROOKS: --I own property in
5 that area and one of my neighbors has done this.
6 The sad fact, though, is, what you're talking
7 about is probably one percent of the population
8 will benefit from this, in these areas. And the
9 rest of the people will pay the price, in terms of
10 the water quality and pollution. This is - -

11 CHAIRPERSON GENNARO: [interposing]
12 And as my father used to say, "Fair's got nothing
13 to do with it." You know. And this is sad and we
14 need, you know, more individuals like you that
15 will, you know, try to look at these kinds of
16 things and with some semblance of sanity, which is
17 not what we have happening. And--

18 BRAD BROOKS: Well, look, for, I
19 mean, to take a bigger picture. I mean, for a
20 state like New York, that already has a serious
21 budget problem, you know, tens of billions of--
22 this cost is the last thing we need.

23 CHAIRPERSON GENNARO: And he, and
24 he thinks this is going to help 'em, and no one's
25 going to change his mind.

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BRAD BROOKS: Right.

CHAIRPERSON GENNARO: And all, and just no one's going to change his mind, 'cause they are past that. They won't even give us a 14 mile corridor to, you know, around the buffer, 'cause that would be too much to give up, because that would be a waste of perfectly good land to frack. This is the mentality. We have like every possible square inch that we can frack, we're going to frack, because it is that good. And I think nothing sort of shows the mentality more than, "We're not going to give you like a little sliver, like we're not even going to give that up. And we're willing to risk the entirety of New York City's, you know, drinking water to protect this little 14 mile corridor." This is, you know, this is where we are.

BRAD BROOKS: It's very scary, yeah, it's very scary.

CHAIRPERSON GENNARO: It's, it's very scary, and it's very sad. And common sense arguments and, you know, the basic economic arguments, are just not going to carry the day. They've already closed the book on that.

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2 BRAD BROOKS: Well, I think you're
3 sadly right, it's, you know--

4 CHAIRPERSON GENNARO: Yeah.

5 BRAD BROOKS: --it's a sad
6 statement about New York State, it's--

7 CHAIRPERSON GENNARO: It is sad.

8 BRAD BROOKS: --the federal
9 government, I mean--

10 CHAIRPERSON GENNARO: It is sad.

11 BRAD BROOKS: --we're obviously
12 bankrupt as a country, also. - -

13 CHAIRPERSON GENNARO: [interposing
14 Yeah, and it's sad and come 2013 it can get a heck
15 of a lot worse. You know. You get a Tea Party
16 President in there, and like the EPA's the first
17 thing that's going.

18 BRAD BROOKS: Well, like, I think
19 sadly, people have sort of labeled this the Cheney
20 Bill, this is a two party thing. I mean, a lot of
21 Democrats signed off on this, also, the Energy
22 Bill in 2004. It's both parties, sadly. I mean,
23 not to be partisan, but it's everybody.

24 CHAIRPERSON GENNARO: Right, I'm,
25 yeah.

1
2 BRAD BROOKS: Yeah, I'm against
3 both parties, I guess I should say. [laughs]

4 CHAIRPERSON GENNARO: Plenty of
5 blame to go around, like you know, amen. But, you
6 know, I think Obama has, you know, some kind of
7 environmental sensitivity, but you know--

8 BRAD BROOKS: No, he thinks it's a
9 clean energy. I mean, look, the sad result is I
10 mean, Cornell came out with the study a couple
11 months ago, if--natural gas burns cleaner once
12 it's in a power plant.

13 CHAIRPERSON GENNARO: Mm-mm.

14 BRAD BROOKS: But if you're taking
15 on the full cost--

16 CHAIRPERSON GENNARO: It's a dirty
17 road to get there.

18 BRAD BROOKS: Well, look, I had
19 made this comment two months ago on Bloomberg, it
20 makes coal strip mining look better and better and
21 more and more information comes out.

22 CHAIRPERSON GENNARO: Hear, hear.

23 BRAD BROOKS: Which is probably the
24 most polluting way to get energy into a power
25 plant, sadly. It's not a clean energy, is also

1
2 should be the message. As these are unfortunately
3 facts as more and more stuff comes out about this.
4 Because this is also a very new technique. This
5 nonsense that we've done it for 40 years--

6 CHAIRPERSON GENNARO: Right.

7 BRAD BROOKS: --is a complete lie.

8 CHAIRPERSON GENNARO: No, no, no,
9 no--

10 BRAD BROOKS: This has only been
11 done for three, four, maybe five years, to the
12 extent they do it now.

13 CHAIRPERSON GENNARO: So.

14 BRAD BROOKS: Anyway, I've taken
15 enough of your time, and I appreciate--

16 CHAIRPERSON GENNARO: I really
17 appreciate the colloquy, and I just, you know--

18 BRAD BROOKS: I'm like the last
19 person - -

20 CHAIRPERSON GENNARO: --thank you
21 for caring enough to like stay this long and
22 testify.

23 BRAD BROOKS: Six hours later.

24 CHAIRPERSON GENNARO: We have a
25 couple more people that wish to do that and we're

1
2 going to do that right away. Thank you, sir,
3 appreciate it.

4 BRAD BROOKS: Thank you for the
5 time.

6 CHAIRPERSON GENNARO: Please.

7 ANNE SELIGMAN: Okay, my name is -

8 -

9 CHAIRPERSON GENNARO: You got to
10 speak right into the thing.

11 ANNE SELIGMAN: My name is Anne
12 Seligman, and what I have to say may be completely
13 moot, based on this dialogue, but I'll say it
14 anyway.

15 CHAIRPERSON GENNARO: Okay.

16 ANNE SELIGMAN: I'll try and keep
17 it brief, though.

18 CHAIRPERSON GENNARO: Mm-hmm.

19 ANNE SELIGMAN: And honestly, I
20 haven't had time to review all 1,537 pages of the
21 DEC SGEIS, so I do appreciate your making this a
22 broader conversation today. I appreciate you
23 having the hearing at all, in fact. I'm very
24 disappointed, as you are, that DEC has not seen
25 fit to send even an intern.

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2 CHAIRPERSON GENNARO: Yeah, they
3 might still come, you don't know.

4 ANNE SELIGMAN: Yeah, you never
5 know, right? [laughter] I do strongly believe
6 that fracking cannot be done safely enough to
7 protect our water, food and landscapes, and I
8 don't think we have the resources to enforce even
9 good regulation. That's something other people
10 have spoken about. I think New York City
11 residents recognize this. Dan Garodnick is my
12 representative, on your--

13 CHAIRPERSON GENNARO: He's a very
14 good guy.

15 ANNE SELIGMAN: He is, he's
16 terrific.

17 CHAIRPERSON GENNARO: He's great.

18 ANNE SELIGMAN: And he recently
19 polled his constituents on a number of topics.
20 And you know how much New Yorkers like to agree on
21 anything, but in fact 77 percent opposed fracking.
22 Only seven percent supported it. The other 16
23 percent didn't know enough to have an opinion.
24 So, it's, it's really remarkable level of
25 agreement. As you say, maybe that doesn't really

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matter.

CHAIRPERSON GENNARO: It doesn't.

ANNE SELIGMAN: But, I do think it's important to understand maybe where it's coming from. And, and understanding where that support does come from. There's a recent statewide - - poll on fracking specifically, and has a lot of detail in it. And the support seems to come from people who believe that, well, that fracking will help the economy, and specifically by creating jobs. The Christopherson [phonetic] report, which actually Cornell is my alma mater, so I'm sort of proud of this, and they are doing some good research. I've actually in my written testimony, I've provided a link to this report, so you have it there.

CHAIRPERSON GENNARO: Okay.

ANNE SELIGMAN: And they point out that extracting technologies do create jobs in the short term, but one of the chapters is entitled something about boom and bust, and sort of the inevitability of that. And of course, the landscapes during that boom, the landscapes that provide this sustainable jobs in tourism or

1
2 agriculture, are lost. High paying jobs typically
3 go to experienced transient workers from other
4 states. And for instance, in Pennsylvania, the
5 local people--this is why it doesn't, won't work
6 for Cuomo--

7 CHAIRPERSON GENNARO: Right.

8 ANNE SELIGMAN: --because the local
9 people who make the money from leasing their land,
10 typically they literally take the money and run.
11 They move to other states where they're not doing
12 this, because their land is ruined. And so,
13 they're not, Cuomo's not even going to get their
14 votes again. He's, you know, I mean, he may not
15 realize that, but--

16 CHAIRPERSON GENNARO: They're past
17 this.

18 ANNE SELIGMAN: I understand.

19 CHAIRPERSON GENNARO: They've,
20 they've thought about this, or they haven't
21 thought about it, but all these decision points,
22 like all these bridges have been crossed.

23 ANNE SELIGMAN: So, I will, I do
24 also appreciate, I just wanted to comment also on
25 something that you were talking about, about the

1 way you need to frame this. I'm a member of
2 Community Board Six, and worked really hard on our
3 resolution to ban fracking. And so, I understand
4 how you have to couch it in terms of what your
5 local interests are. And so I will speak as a New
6 Yorker, as somebody from New York City. Food, I
7 was really glad to hear a few people mention food.
8 I joined a CSA this year for the first time, and I
9 love it. I love having access to local, organic,
10 affordable food, and I'm really concerned that
11 that's going to go away. Again, that's obviously
12 a problem for upstate farmers, as well, who have
13 been able to protect their, reduce their risk and
14 increase their margins. And on another level, not
15 just about food, but in tourism, I'm planning a
16 leaf peeping trip, you know. Where am I going to
17 go? Well, this year I'm going to New York. Next
18 year maybe it'll be Massachusetts, maybe it'll be
19 New Jersey. But it's not going to be
20 Pennsylvania. And next year, it may not be New
21 York, either. So, I do appreciate this. I will--
22 you also asked if people were talking about taking
23 a leaf from Martin Luther's book. And I'll say
24 one of the things that I'm hearing more and more,
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1
2 is not about Martin Luther, but about Martin
3 Luther King, in trying to follow his example. So,
4 maybe I'll close with a quote, that I sometimes
5 use when I get to a little passionate on this, and
6 I'll, I'm par--I may not get this exactly right.
7 But it's from Mark Twain, who says, "I know, I
8 know I'm unreasonable on this topic, but I would
9 be embarrassed were I not." So, I--

10 CHAIRPERSON GENNARO: Well, I don't
11 think that you're being in any way unreasonable.
12 I think a lot of other people are, and I think
13 that's why we're here today. And so, thanks for
14 coming, appreciate it.

15 ANNE SELIGMAN: Thank you.

16 CHAIRPERSON GENNARO: You bet.

17 [pause, background voices]

18 CHAIRPERSON GENNARO: Yeah, but
19 let, let's call the people that we know are here.
20 Margaret Rafferty, Marilyn Stern.

21 COUNSEL: Yeah, those are the two.

22 CHAIRPERSON GENNARO: Okay.

23 COUNSEL: Anne Bassin [phonetic].

24 - - Just those two--

25 CHAIRPERSON GENNARO: Okay.

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COUNSEL: They're the last ones.

COUNCIL MEMBER LEVIN: And for the record, Mr. Chairman, Marilyn Stern and I are related.

CHAIRPERSON GENNARO: Oh.

COUNCIL MEMBER LEVIN: Kind of.

MARILYN STERN: Kind of.

CHAIRPERSON GENNARO: Okay.

Perhaps we should have a hearing on that.

[laughter] To explore, you know--[laughs]

[pause] Well, Marilyn, we're going to do, the last panel is not going to be sworn, because, you know, it's sort of like a special perq that goes with being on the last panel. And also being related to a member of the Committee. You know. And, and by virtue of being on the last panel, the, the last two people to testify at every hearing get, it's customary for the City Council Member who is like not the Chair of the Committee to buy them dinner. And just by [laughter] and so, if that member's still around.

MARILYN STERN: As long as it's not the other way around.

CHAIRPERSON GENNARO: Yeah. And

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2 so. So, yeah, you can think about, get them the,
3 get them the Zagat, you know, journal, the bill,
4 they can pick out the restaurant. So, Marilyn,
5 what, we'll hear from you first.

6 MARILYN STERN: Okay, thank you
7 very much for holding this.

8 CHAIRPERSON GENNARO: What've you
9 got for us? Yeah, thank you.

10 MARILYN STERN: This hearing. I'm
11 going to try to keep this very brief. So many
12 wonderful points have been made already. My
13 statements, which I'm going to submit, is about
14 addressing the lack of the health impact analysis
15 in the SGEIS. However, I wanted to just put in
16 for the record, because it turns out that
17 economics is extremely important, especially on
18 the State level, on this issue. And I want to put
19 in for the record that a study has been done by a
20 Dr. Jeanette Barth, who has a Ph.D. in economics,
21 I do not have a copy of it here, I can get it to
22 you. She has done a study showing that there will
23 be a negative economic impact in New York State.
24 And I think it's very important that that study be
25 publicized, especially if that's the main argument

1
2 that the Cuomo Administration is making. Also, I
3 want to just state that, this is also not in my
4 statement, but last night I saw a movie called
5 "Into Eternity." I don't know if you're familiar
6 with it. Okay. It's, it's about a facility
7 that's being built in Finland, to hold nuclear
8 waste. And it won't be completed for another 120
9 years, it's so deep underground, and it's so huge,
10 and no one knows whether in fact it'll work or end
11 up being discovered. It is being designed to last
12 for 100,000 years. And I'd like to point out that
13 in the discussion of fracking, we're not even
14 talking about 100 years, let alone 100,000 years.
15 And it just, I kept thinking as I watched this
16 movie, and I met and got to speak with the
17 director, that so little thought has really gone
18 into this, in terms of future generations, and
19 what we're going to leave for them. So, I just
20 want to put in that perspective. I think the
21 people in this room may have thought about that,
22 but certainly the people making the decisions are
23 not thinking about our grandchildren's
24 grandchildren's grandchildren. Okay, having said
25 all that, I'm going to just go through my

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2 statement very quickly. Stephanie Weininger
3 already addressed the fact that the SGEIS, I don't
4 know how to pronounce it, SGEIS, completely--

5 CHAIRPERSON GENNARO: I just call
6 it like the study, and just, you know.

7 MARILYN STERN: The study, okay.
8 The study in question--

9 CHAIRPERSON GENNARO: The document,
10 whatever.

11 MARILYN STERN: Yes. She's already
12 addressed the fact that they left out health
13 impacts, pretty big omission. First I want to say
14 my name is Marilyn Stern, I'm a concerned citizen
15 of New York City and a volunteer for United for
16 Action. And the SGEIS issued by the DEC in July
17 has 17 major flaws as outlined by Source Watch, an
18 online publication of Center for Media and
19 Democracy. I have a link to their website on the
20 statement that I'm submitting. I call your
21 attention to number two on their list, the fact
22 that the report contains no analysis of known
23 public health impacts, nor any risk analysis on
24 potential health impacts associated with
25 hydrofracturing, despite growing evidence of such

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2 negative impacts in other states. And I'm
3 providing some references to those studies in my
4 testimony, along with a comprehensive list of
5 health considerations compiled by Dr. Larysa
6 Dyrzka, who you may be familiar with. In Dr.
7 Dyrzka's testimony, at the New York Senate
8 hearing on gas drilling on August 23rd, Dr.
9 Dyrzka, M.D., cited studies on the health impacts
10 of gas drilling. And this is important, she also
11 explained why there are not more scientific
12 studies on the subject. Why? Because in 2005 gas
13 drilling was exempted from seven major federal
14 acts, including the Clean Water Act, the Safe
15 Drinking Act, and the National Environmental
16 Policy Act. Okay. Because of this, there has
17 been no oversight of the gas industry by the EPA
18 or federal health agencies, and the data required
19 for scientific research is not being generated or
20 compiled. This is huge. Okay, it may be too late
21 to bring this up with the Governor, but this is
22 huge. How do we even know how dangerous this is,
23 if there are no studies being done. Okay.
24 Furthermore, nondisclosure clauses are common on
25 gas leases, and that means that people may be

1
2 dying, people may be getting cancer, but they are
3 sworn by contract not to mention it to anybody.
4 Okay, in fact even to their doctors, I believe,
5 they are not supposed to make a link between the
6 gas wells in their front yard and their symptoms.
7 So, evidence is being suppressed in many ways.
8 Anyway, we were advised to suggest remedies for
9 the SGEIS, and so I'm going to suggest two
10 remedies. A comprehensive and independent study
11 of health impacts, both known and potential, from
12 gas exploration and production, to be completed by
13 the New York DOH or other independent agency,
14 before gas drilling is permitted in New York.
15 Without such a study, the DEC is conducting a
16 reckless experiment on millions of New Yorkers, as
17 well as on our State's precious ecosystem. Remedy
18 number two, we need full disclosure of fracking
19 chemicals. You cannot study health effects if you
20 don't know what the chemicals are. Okay, and I'm
21 sure people here today have spoken about the
22 numerous toxic chemicals: benzene, so forth, in
23 the fracking fluids. Okay, to this end, now, I
24 have to admit, I don't know too much about this,
25 but I would urge you to actively support New York

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2 Senator Greg Ball's comprehensive fracking bill,
3 which was announced August 29th, was that, I don't
4 know if that was discussed here today. That there
5 is a fracking bill in the Senate, is that still
6 pending? Is that--?

7 CHAIRPERSON GENNARO: I just don't
8 get a sense that anything that the Legislature is
9 going to do is going to matter, because you have
10 to get it passed both houses and then you have to
11 get the Governor to sign it, and I don't think
12 anything, and I don't think it's getting anywhere.
13 But I mean, I don't want to--

14 MARILYN STERN: Well, I hope--

15 CHAIRPERSON GENNARO: --anybody
16 that wants to champion the cause and put in a
17 piece of legislation--

18 MARILYN STERN: Right.

19 CHAIRPERSON GENNARO: --and say,
20 you have a bunch of members of the Senate that
21 have put in, and what's the name of the Senator
22 again?

23 MARILYN STERN: Greg Ball. He, he
24 happens to be Republican.

25 CHAIRPERSON GENNARO: Where's he

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from? Where's he from?

MARILYN STERN: I'm not sure where he's from.

CHAIRPERSON GENNARO: Oh, oh, he's a Republican.

MARILYN STERN: I believe he's Republican, which is good.

CHAIRPERSON GENNARO: Which is good.

MARILYN STERN: Which is good.

CHAIRPERSON GENNARO: Yeah, for that house, yeah.

MARILYN STERN: And I want, and I'm ending, I'm actually ending my statement by a quote from Senator Ball, which is on his website and I provide a link. After visiting the fracking fields of Pennsylvania, Senator Ball said, "I can tell you right now, that after the pain that I've seen here today, and the pain that I experienced firsthand speaking with families and farmers in Pennsylvania, it will be over my dead body before I allow what happened in Pennsylvania to happen here in New York."

CHAIRPERSON GENNARO: Good for him.

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Good for him.

MARILYN STERN: So.

CHAIRPERSON GENNARO: Yeah.

MARILYN STERN: He deserves our support.

CHAIRPERSON GENNARO: Bill, if you could get me that bill. I don't really know who this guy is, but I want to be supportive of him and just give me that bill, and just let me know what it says. That sounds great.

MARILYN STERN: And we at United for Action are, we have a great PowerPoint show, we're getting out there, we are trying to educate the public as much as possible. I agree, it may look hopeless, but it, you know, once people learn about this, 99.9 percent of them, at least downstate, are against fracking. Upstate, it's more of an economic issue, and that's why it's really important to read any economic studies that are done showing that, "Hey, maybe this is not so great for New York." But at least, reasonable, reasonable people who learn about it say, "How could they even consider doing this?" So, a combination of education and some legis--you know,

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2 legislation that's well times, and hopefully gets
3 some publicity. We have to keep hoping.

4 CHAIRPERSON GENNARO: Yes, and if I
5 didn't have hope, I wouldn't be here today, and
6 I'm heartened by everyone that wants to try to
7 embrace this subject, and to, you know, try to
8 make a difference in the face of very long odds.
9 You know. You do what you need to do, and you
10 know, you don't give up. And even when you're
11 beaten, you still don't give up, and so--

12 MARILYN STERN: I'd like to just
13 say one thing to, in case people are just getting
14 too depressed. That I was active in the anti-
15 nuclear movement, and it looked like we didn't
16 have a chance of shutting down Shoreham Nuclear
17 Power Plant on Long Island, and public opinion
18 changed very quickly with the right information.

19 CHAIRPERSON GENNARO: I was there
20 in 1979 with Pete Seger, the whole big thing on
21 the beach and everything, by Shoreham. '78 or
22 '79, whatever it was.

23 MARILYN STERN: Right, right.

24 CHAIRPERSON GENNARO: Back in my--

25 MARILYN STERN: '70s, '79, I think

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so.

CHAIRPERSON GENNARO: Yeah, my college days, yeah.

MARILYN STERN: Mm-hmm, well, there is no Shoreham Nuclear Power Plant, so--

CHAIRPERSON GENNARO: Right.

MARILYN STERN: --you know, and that, that was against--

CHAIRPERSON GENNARO: I went to school right next door--

MARILYN STERN: --great odds. So, I have to keep hoping that people come to their senses.

CHAIRPERSON GENNARO: Yeah. I went to school right next door at Stony Brook, so I was, I was close by, yeah.

MARILYN STERN: Oh, right there.

CHAIRPERSON GENNARO: Yeah, so we were real close by, so, yep. I was on the beach in 1978, 'cause it's, it was on the water, of course, so that we had this like, big demonstration thing, like on the beach by Shoreham, and yeah, I, I guess I haven't, I'm still doing the same thing, all these years later.

2 MARILYN STERN: [laughs]

3 CHAIRPERSON GENNARO: Right? That
4 was a long time ago. But, 30 some odd years and
5 maybe 50 pounds ago, something like that, yeah,
6 long time.

7 MARILYN STERN: But it can be done,
8 it can be done, and you know, the facts are really
9 on our side here. The studies that are coming
10 out, this fellow who spoke before mentioned, was
11 it Howarth [phonetic], I'm not sure if it was
12 Howarth that came out with the carbon footprint.
13 You know, that's the big argument, clean natural
14 gas.

15 CHAIRPERSON GENNARO: My staff is
16 in charge of finding out all about these studies
17 that get mentioned--

18 MARILYN STERN: Yeah, yeah that's
19 powerful.

20 CHAIRPERSON GENNARO: --and getting
21 them to me, hopefully they'll do that.

22 MARILYN STERN: Very powerful
23 stuff. So, anyway, I will cede the floor, and
24 thank you so much for having this hearing today.

25 CHAIRPERSON GENNARO: Okay, thank

1
2 you, Ms. Stern, I appreciate it. And just make
3 sure, you know, Steve pays up on dinner, you know.
4 [laughs] Okay.

5 MARILYN STERN: Sure.

6 CHAIRPERSON GENNARO: Margaret.
7 Yes.

8 COUNSEL: She has been here since
9 2:00 o'clock.

10 CHAIRPERSON GENNARO: Yes. Where
11 would you like to go to dinner with Steve and
12 Marilyn? [background comments] Okay, okay. You
13 know what? Yes, you got to put the, put the mic
14 on there, talk right into it. And--

15 MARGARET RAFFERTY: It's on?

16 CHAIRPERSON GENNARO: Yes. And--

17 MARGARET RAFFERTY: Okay.

18 CHAIRPERSON GENNARO: You have the
19 last word and you, you know, you get the patience
20 award.

21 MARGARET RAFFERTY: Okay.

22 CHAIRPERSON GENNARO: And so--

23 MARGARET RAFFERTY: All right. Dr.
24 Margaret Rafferty. Thank you for inviting me to
25 testify today. As a nurse educator, academically

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2 trained in nursing and public health, with over 35
3 years of experience, I find the recently released
4 DEC report to be glaringly deficient. It falls
5 woefully short of protecting our City's enviable
6 water quality and the health of our eight million
7 fellow New Yorkers. I am particularly concerned
8 about the shrinking buffer zone between the aging
9 tunnels and aqueducts in the water system and the
10 drilling sites. Drilling at this close range has
11 the potential for catastrophic health
12 consequences. Contaminating our water supply with
13 the toxic chemicals used in hydraulic fracturing
14 would set the stage for a public health emergency,
15 for every New York resident. Pregnant women,
16 infants, children and elderly would be especially
17 vulnerable. According to the DEC report, drilling
18 companies have disclosed the use of 322 unique
19 chemicals and 235 products in our State.
20 Fracturing products are highly diluted when used
21 to fracture shale rock, but when combined with
22 other potential toxins, are harmful at the part
23 per billion. Chemicals used in the process are
24 known neurotoxins, carcinogens and endocrine
25 disruptors. Dr. Theo Colborn cited a broad range

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2 of potential toxicity of the chemicals, over 75
3 percent of the chemicals could affect the skin,
4 eyes, other sensory organs, respiratory systems,
5 and the gastrointestinal system. 25 percent of
6 the chemicals were carcinogens, 37 percent of the
7 chemicals could affect the endocrine system, and
8 almost 40 to 50 percent could affect the nervous,
9 immune-cardiovascular system, or the kidneys.

10 Material that exists naturally in shale rock
11 includes arsenic, barium, chromium, lead, uranium,
12 radium, radon, benzene, bacteria, and a highly
13 corrosive salt. The synergistic effects of mixing
14 hundreds of chemicals with shale rocks' components
15 has not been studied. Not enough has been done to
16 study the impact of hydraulic fracturing on the
17 health of Americans. Many health professionals
18 are concerned. Pediatricians, who are
19 environmental health experts, have issued a
20 statement, which is all part of your package.

21 People who live near drilling sites report
22 symptoms that they attribute to contaminated water
23 and air. And when they seek help from clinicians,
24 a diagnosis is often elusive, because the
25 chemicals to which the patients have been exposed

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2 are a closely guarded trade secret. These
3 symptoms include headache, malaise, nausea, rash,
4 vision problems nosebleeds and respiratory
5 problems. While some even attribute their cancers
6 to the proximity to drilling. Whether these
7 symptoms have an environmental etiology or not, we
8 simply do not know, because the research is scant.
9 Chairman Gennaro, I want to thank you and your
10 Committee for your leadership on this issue. I
11 ask the City Council to ban, support a ban on
12 hydraulic fracturing until scientists deem this
13 activity to be medically safe and its impact on
14 human health better understood. Thank you.

15 CHAIRPERSON GENNARO: Thank you,
16 Dr. Rafferty. I really appreciate your being
17 here, and staying to the very end, and giving the
18 benefit, giving us the benefit of your views and
19 this, and this bibliography of other studies that
20 we can reference, is really, really helpful to us.
21 And I'm just thankful that you stayed, and give us
22 the benefit of use. I know this is not the first
23 hearing of ours that you've been to, but this is
24 the kind of testimony that will really make a
25 difference, and all these other works that are

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2 available for us to sort of, you know, glean what
3 they have to say as well, would be, will be
4 helpful. And I'm very grateful to all of the
5 witnesses that stayed, that gave us the benefit of
6 their views. I mean, we've got a lot of good
7 stuff on the record. And we're going to formulate
8 a strategy and go forward. And in terms of what
9 I'm going to do, and I'm also very happy that
10 Council Member Levin is here at this late hour. I
11 mean, it's like after hours now in California.
12 This is after--[laughter]

13 MARGARET RAFFERTY: Yes, really.

14 CHAIRPERSON GENNARO: --it's like
15 after hours in California, for crying out loud.
16 You know? And we've all missed the last sunset of
17 summer. You know, is that right, summer comes at
18 5:00 in the morning tomorrow. And you know, we
19 gave up our ability to watch the last sunset of
20 summer to hear talk about, you know, something
21 that was very, very important. And, so, in terms
22 of next steps, you know, we have to figure out
23 what we do with all of this information, and then
24 we'll talk to the Administration, we'll have a
25 press conference, we'll, you know, figure out the

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2 best way that we can make a difference, and we're
3 going to go out there and make it or, or--we're
4 going to make it. And we're going to make that
5 difference, and I, like I said, I'm very grateful
6 to Steve Levin and staff and everyone who's still
7 here at this late hour. And, and the sergeants
8 who hung in the whole time, who came up with
9 enough tape to put in the tape recorder to record
10 all this. And Counsel's going to tell me one more
11 thing to mention?

12 COUNSEL: I wanted--wanted to have
13 their names mentioned - -

14 CHAIRPERSON GENNARO: Okay.

15 COUNSEL: --and left, and left
16 their statements.

17 CHAIRPERSON GENNARO: Okay, we got
18 all, we want to, oh, no, I have to read it into
19 the record, 'cause they won't, they won't hear
20 you. So, these are folks who put together a
21 [background comments] body of work here and they
22 want us--

23 COUNSEL: 780--

24 CHAIRPERSON GENNARO: This is who?

25 COUNSEL: The three, the three--

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780--

CHAIRPERSON GENNARO: 3 Parks

Democrats.

COUNSEL: 3 Parks Democrats.

CHAIRPERSON GENNARO: 3 Parks

Democrats.

COUNSEL: Susan--

CHAIRPERSON GENNARO: And this is what, like a petition or something?

COUNSEL: Signatures against fracking.

CHAIRPERSON GENNARO: Okay.

COUNSEL: They were out taking--

CHAIRPERSON GENNARO: All right.

COUNSEL: Susan Singer.

CHAIRPERSON GENNARO: Susan Singer, who also has some kind of petition, right?

COUNSEL: Those are her 20 copies.

CHAIRPERSON GENNARO: Oh, I see, I see.

COUNSEL: Raymond Arrera [phonetic]

CHAIRPERSON GENNARO: Ray Arrera, oh, my constituent and my friend. Yes, he told me he was going to leave this for us.

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COUNSEL: Common Cause.

CHAIRPERSON GENNARO: Uh-huh,
Common Cause. [pause] Consumers Health Freedom
Coalition. Arnold Gore, Consumers Health Freedom
Coalition. Okay. And Marjorie Hockman
[phonetic], also almost my constituent, just a
couple blocks out of my district on Yellowstone
Boulevard, in Forest Hills. Committee for
Environmentally Sound Development, also submitted
a statement. Manhattan Community Board One. And
that'll do it, right?

COUNSEL: No, well--

CHAIRPERSON GENNARO: Ling Sao
[phonetic] okay.

COUNSEL: --laine Weber.

CHAIRPERSON GENNARO: Bonnie Lane
Weber, also left stuff for the record.

COUNSEL: And - - sara--

CHAIRPERSON GENNARO: Robert Casera
[phonetic]

COUNSEL: And [pause]

CHAIRPERSON GENNARO: Looks like
Gusti Bogak [phonetic]

COUNSEL: Yes.

CHAIRPERSON GENNARO: Gusti Bogak.

Okay. Wow. [background comment] Oh, okay.

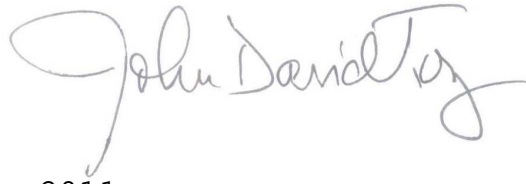
Well, thank you again, Dr. Rafferty for being here and for all involved. I want to recognize on the record that DEP was here at the beginning and they're here at the end. And let it be known that we're not going to wait any longer for DEC, so if they show up in ten minutes, we're going to tell 'em like, it didn't matter. [laughter] They missed it. And so, thank you all for being here. God bless, and this formally adjourns the hearing.

[gavel]

C E R T I F I C A T E

I, JOHN DAVID TONG certify that the foregoing transcript is a true and accurate record of the proceedings. I further certify that I am not related to any of the parties to this action by blood or marriage, and that I am in no way interested in the outcome of this matter.

Signature

A handwritten signature in cursive script that reads "John David Tong". The signature is written in dark ink and is positioned to the right of the printed word "Signature".

Date October 10, 2011