

CITY COUNCIL
CITY OF NEW YORK

-----X

TRANSCRIPT OF THE MINUTES

of the

COMMITTEE ON ENVIRONMENTAL PROTECTION

-----X

October 23, 2009

Start: 10:32 am

Recess: 4:33 pm

HELD AT: Council Chambers
City Hall

B E F O R E:

JAMES F. GENNARO
Chairperson

COUNCIL MEMBERS:

Council Member Elizabeth Crowley
Council Member Bill de Blasio
Council Member Mathieu Eugene
Council Member G. Oliver Koppell
Council Member Domenic Recchia, Jr.
Council Member Peter Vallone, Jr.

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

Steven W. Lawitts
Acting Commissioner
New York City Department of Environmental Protection

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

Scott Stringer
Manhattan Borough President

John H. Williams
Geologist, New York District Groundwater Specialist
United States Geological Survey

Jerrod Chessow
Representative
Office of State Senator Tom Dwayne

Molly Bidal
Representative
Office of State Assembly Member Deborah Glick

Marcia Van Wagner
Deputy Comptroller for Budget
Office of New York City Comptroller

Dusty Horwitt
Analyst
Environmental Working Group

Eric Goldstein
Co-Director, Urban Program
Natural Resources Defenses Council

Jay Simpson
Staff Attorney
Riverkeeper

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

Steve Levy
Co-President
Federated Conservationists of Westchester County

Fay Muir
President
Croton Watershed Clean Water Coalition

Marian Rose
Treasurer
Croton Watershed Clean Water Coalition

Kathleen Breen
Watershed Protection Coordinator
New York Public Interest Research Group

Deborah Goldberg
Managing Attorney, Northeast
Earth Justice

Ken Baer
Past-Chair, Atlantic Chapter
Sierra Club

Annie Wilson
Energy Committee Chair, Atlantic Chapter
Sierra Club

Albert F. Appleton
Senior Fellow for Infrastructure
CUNY Institute for Urban Systems

Catherine McVeigh Hughes
Vice Chair
Community Board One

Joseph Levine
Cofounder and Chairman
NYH2O

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

Josh Fox
Filmmaker
WaterUnderAttack.com

Michael Lebron
Member
New Yorkers for Sustainable Energy Solutions
Statewide and Damascus Citizens for Sustainability

Pat Carullo
Co-Founder
Damascus Citizens for Sustainability

Ann Warner Arlen
Public member
Environment Committee of Community Board Two

Wes Gillingham
Program Director
Catskill Mountainkeeper

Susan Dey
Member
Catskill Mountainkeeper

Matt Wallach
Hudson Valley Program Coordinator
Citizens Campaign for the Environment

Mav Moorhead
Board Member
NYH2O

Monica Huntgin
Member
NYH2O, waterunderattack.com, Damascus Citizens

Denise Katzman
Member
Waterunderattack.com, etc.

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

Jane Cyphers

Member

Damascus Citizens for Sustainability

Susan Rosenthal

Citizen

New York

Arnold Frogal

Citizen

New York

1
2 CHAIRPERSON GENNARO: Good morning,
3 good morning, thank you all for coming. Are we
4 ready, Sergeant?

5 SERGEANT-AT-ARMS: [off mic] Yes,
6 sir.

7 CHAIRPERSON GENNARO: Okay. Good
8 morning and welcome, I'm Chairman Jim Gennaro.
9 I'm Councilman Jim Gennaro and Chairman of the
10 City Council's Committee on Environmental
11 Protection. Today, as we all know, we're holding
12 a hearing on the draft Supplemental Generic
13 Environmental Impact Statement on Drilling in the
14 Marcellus Shale, and of course within the New York
15 City Watershed. I've spent almost two decades of
16 my professional career working to protect the New
17 York City Watershed, and I plan to continue my
18 efforts. The New York City Watershed provides
19 potable water for more than nine million residents
20 of New York City, and millions of others who work
21 here as well, as those who reside in communities
22 whose water comes from our system, which
23 represents about half the people in the State.
24 The City's watershed lands and infrastructure were
25 developed and nurtured by New York City and

1 supported by recent acquisitions that I and this
2 Council fought for. The combined total of City
3 land, City owned land, land under City purchase
4 easements in the Catskill/Delaware Watershed, is
5 more than 144,000 acres. That comes to more than
6 twelve percent of the land in the watershed. It
7 is our single most important regional natural
8 resource, and New York City committed \$250 million
9 for land acquisition through the 1997 MOA, and an
10 additional \$241 million through the 2007 FAD to
11 Watershed purchases. In total, New York City has
12 spent more than \$2 billion to protect its
13 watershed. We do not want to waste the \$2 billion
14 we invested, nor be required to filter our water
15 after it is polluted by others for their profit,
16 and at a high cost to City residents. The bottom
17 line is that nothing should be allowed to
18 jeopardize an unfiltered and pure drinking water
19 source for half the state, that is able to serve
20 the drinking water needs of this and future
21 generations. We also want to be sympathetic and
22 stand in partnership with those that have concerns
23 about fracking throughout the state and throughout
24 the country. And we have a resolution that will
25

1
2 be also having a hearing on today, that will speak
3 to some of those issues as well. The resolution
4 is not up for a vote today. We want to make it,
5 we want to take, we want to make a good resolution
6 that we already have, better still. And hopefully
7 we'll get input from many of the good people here
8 today, all of whom will be heard, to get us to
9 that good end of not just passing a good
10 resolution, but a near perfect resolution. So,
11 today we'll be hearing from the DEP, who is seated
12 at the witness table, about steps that it plans to
13 take to protect the New York City Watershed. And
14 their efforts to date to try to work with the
15 state regulators to make the best case possible,
16 that our watershed--of course, they speak for the
17 New York Watershed, but here, the people here
18 today want to speak for watersheds throughout the
19 state and then throughout the country. And let
20 the good work of the DEP be a bellwether to, you
21 know, or the jurisdictions throughout the state,
22 and others around the country, who wish to protect
23 their water supplies from hydrofracking. We're
24 joined by Council Member Peter Vallone, a valued
25 member of this Committee. And I want to send a

1
2 special, I want to extend a special thank you to
3 the staff of the Council who've, putting this
4 hearing together. Counsel to the Committee Samara
5 Swanson, Siobhan Watson, William Murray, Brad
6 Grosnik; also a special thank you to Speaker Quinn
7 and the Speaker's staff, they've been steadfast in
8 support of the activities of this Committee, and I
9 thank them. So without further ado, Council
10 Member Peter Vallone wishes to be recognized for a
11 statement. I am more than happy to recognize my
12 friend and colleague and a great environmentalist,
13 Peter Vallone, Jr.

14 COUNCIL MEMBER VALLONE: Thank you,
15 Mr. Chair, and as Public Safety Chair, this is an
16 issue that's very important to me, and I'm honored
17 to work with you on. I just wanted to update you
18 and Committee. We wrote a letter in March to
19 Governor Patterson, saying we absolutely oppose
20 this. But at a minimum, if you're going to do
21 drilling, and endanger our water supply, then you
22 the State guarantee that if you damage our water
23 supply, you will fix it. Very simple. If there
24 is no risk, as you say, then guarantee it. If
25 there is a risk, then don't do it. We wrote this

1
2 letter in March; not even a response. Not even a
3 response to the Chairman of the City Council's
4 Public Safety Committee. I think it's very
5 simple, as I said, if they believe that this is
6 truly risk free and that our water's not in
7 danger, then guarantee that if they, if they harm
8 our water, they have to pay the billions to fix
9 it, we don't have the billions to fix it. Even
10 something that simple hasn't been done to this
11 date, just to update you. So, continue on your
12 quest here and I support you.

13 CHAIRPERSON GENNARO: Thank you.

14 Thank you, Council Member Vallone. You know,
15 certainly we've made a lot of outreach to a lot of
16 folks. We reached out to the EPA that was so, you
17 know, deeply involved in putting together the MOA
18 and the FAD. And I wrote the EPA wanting them to
19 sort of go on the record as to whether or not
20 hydrofracking could place the filtration avoidance
21 determination at risk. And of course the answer
22 to that question is obviously yes. But they have
23 opted, you know, not to go on the record with a
24 formal response, although they did send me a
25 polite letter indicating that they were going to

1
2 pass on my thoughtful question. So, there you
3 have it. But we still, we're still here, we're
4 going to be here, we've had many hearings on this.
5 And we are going to continue to do so, we're going
6 to pass as good a resolution as we possibly can.
7 We're all hopefully going to make our voices heard
8 at the state hearing on the EIS, which I
9 understand is at Stuyvesant High School right down
10 the street on Chambers Street, 345 Chambers,
11 November 10th, at 7:00 p.m. Hope to see you all
12 there. I'll even bring donuts, okay, if that
13 will--So, did I hear some applause for the donuts,
14 was that right? [applause] Okay. Okay. Okay.
15 Yeah, there'll be no trans fats in these donuts.
16 But they will still be delicious. And with that
17 said, I'd like to welcome my partners in
18 government, DEP, Acting Commissioner Steve
19 Lawitts, and his whole team who is here. Also, I
20 want to recognize the good folks at the Mayor's
21 Office of Long Time Planning and Sustainability
22 who are real partners with this Committee on all
23 things environmental. I see Cotter Strickland
24 here, and they are great partners for us, and we
25 appreciate their focus on this issue, as well.

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25

COMMITTEE ON ENVIRONMENTAL PROTECTION 12

So, without further ado, I--Oh, I, also we're joined by Council Member Domenic Recchia, also a valued member of this Committee. I welcome the DEP panel. I ask the Counsel to the Committee to swear in the panel. After that, Commissioner Lawitts you can proceed with your good testimony.

COUNSEL TO THE COMMITTEE:

Gentlemen, please raise your right hands. Do you swear or affirm to tell the truth, the whole truth and nothing but the truth today?

STEVE LAWITTS: I do.

CHAIRPERSON GENNARO: Steve, the floor is yours. Do I have your statement? Where is--where's Commissioner Lawitts' statement? Okay.

STEVE LAWITTS: Thank you--

CHAIRPERSON GENNARO: I have it.

STEVE LAWITTS: --Mr. Chair. Good morning, Chairman Gennaro, and good morning Council Members Vallone and Recchia. I am Steven W. Lawitts, Acting Commissioner of the New York City Department of Environmental Protection. I want to thank the Council for holding this hearing and having DEP come back to the Council for the

1
2 second time in five days this week. We had
3 previously testified on Monday on a different
4 subject. I am joined today by Paul Rush to my
5 left, your right; Paul Rush, professional
6 engineer, who is Deputy Commissioner of DEP's
7 Bureau of Water Supply. Thank you for the
8 opportunity to testify on natural gas drilling, a
9 subject of vital interest to the City of New York.
10 I have a relatively short prepared statement,
11 after which I'm going to ask Deputy Commissioner
12 Rush to give the Council, to give the Committee a
13 presentation that we developed through the
14 consultants we engaged to advise us on the effects
15 of natural gas drilling on water quality and water
16 quantity. And if Mr. Chair and the members will
17 indulge us, the presentation itself should take
18 about 30 minutes. I know that's a pretty long
19 time, but there's a lot of information that we
20 feel is critical to dispense at this hearing.

21 CHAIRPERSON GENNARO: Sure. We'd
22 be, we did send a staff member to see the
23 presentation. We think it's valuable information,
24 where, you know, willing to make the commitment of
25 time, although it is a, you know, very significant

2 commitment of time and whatever could shed light
3 and give needed information to all these folks
4 that are going to go back into their respective
5 communities, then we're willing to do that. Just
6 try to get through it as quickly as you can.

7 STEVE LAWITTS: Of course. Thank
8 you, Mr. Chair. And just before I continue, I
9 would like to thank the Chairman for his
10 leadership on this issue. I know you've been
11 outspoken, as well as the other council members,
12 about it for well over a year.

13 CHAIRPERSON GENNARO: Sure, thank
14 you. [applause] Well, thank you. Thank you.

15 STEVE LAWITTS: Clean water is
16 essential to public health. The regional water
17 supply system operated by DEP is the primary
18 source of drinking water for approximately one
19 half of the state's residents. It provides
20 approximately 1.1 billion gallons of water to 8.4
21 million residents of New York City, one million
22 consumers outside of New York City, in
23 Westchester, Putnam, Orange and Ulster Counties,
24 including New Paltz, Newburgh, Tarrytown,
25 Peekskill, White Plains, Scarsdale, New Rochelle,

1
2 Yonkers, and other major towns in those counties,
3 and millions of commuters and visitors every day.
4 In addition, other residents from these upstate
5 counties have the right to tap into this water
6 system. In an average year, about 90 percent of
7 our water is provided by two watersheds in the
8 Catskills region, which are known as the Catskill
9 and the Delaware Watersheds. Virtually all of
10 these watersheds lie directly over the Marcellus
11 Shale formation. It is no exaggeration to say
12 that this clean water system allows for the future
13 development of the entire downstate region, and
14 the economic engine that it provides for New York
15 State. Hydrofracturing drilling in the watershed
16 creates the potential to jeopardize public health.
17 Natural gas drilling of any sort is an industrial
18 activity that can pollute the ground and surface
19 waters that form an integral part of New York
20 City's drinking water system. Hydrofracturing
21 drilling operations require the clear cutting of
22 forests, the construction of new roads and
23 drilling pads, the storage and use of chemicals
24 that can include benzene and other carcinogens,
25 and surface impoundments or tanks to store those

1
2 chemicals and briny float back liquid. In
3 addition, drilling and fracturing with pressurized
4 solution can damage aqueducts and other subsurface
5 facilities, cause settling, and contaminate
6 groundwater. Because New York City has an
7 unfiltered system, as you've already observed,
8 serving nine million customers, the potential for
9 contamination is especially alarming. That is why
10 DEP has vigorously sought to protect its customers
11 from any public health risks and unnecessary
12 costs. In a July 2008 letter, then Commissioner
13 Emily Lloyd expressed the administration's grave
14 concern to the New York State Department of
15 Environmental Conservation, Commissioner Grannis,
16 at the prospect of natural gas drilling in the
17 watershed, and made several recommendations. When
18 Commissioner Grannis made a determination to issue
19 a Supplemental Generic Environmental Impact
20 Statement, or SGEIS, on natural gas drilling, DEP
21 submitted comments on the scope of the SGEIS to
22 underscore the need for the state to carefully
23 analyze those issues that most affect the
24 watershed and our customers. In September of
25 2009, I again wrote to Commissioner Grannis to

1
2 express DEP's alarm that the potential impact of
3 natural gas drilling on our unfiltered watersheds.
4 I also requested that he obtain from the New York
5 State Department of Health an assessment of the
6 public health impacts of drilling in our
7 unfiltered watershed. As the primary regulator of
8 drinking water quality in the state, the New York
9 State Department of Health is uniquely qualified
10 to identify the risks to public health that
11 natural gas drilling presents, and whether those
12 risks can be sufficiently addressed over the long
13 term. DEP has engaged a joint venture of
14 engineering firms to provide independent, expert
15 advice on the subject of natural gas exploitation
16 via hydrofracturing, and the risk to our drinking
17 water supply. I have asked Commissioner Grannis
18 to extend the draft SGEIS comment period by
19 approximately 45 days so that we will have time to
20 complete the consultant study. Although we have
21 not received a response from Commissioner Grannis,
22 we are sure he will give the extension request due
23 consideration. If our study or the New York State
24 Department of Health Review should conclude that
25 gas drilling currently proposed by the State will

1
2 create risks to our watershed, then the price tag
3 for this proposal as you've already alluded to,
4 Mr. Chair and Council Member Vallone, will be at
5 least \$10 billion, which will have to be paid for
6 by someone. The U.S. Environmental Protection
7 Agency and the New York State Department of Health
8 allow DEP to operate the Catskill/Delaware Water
9 Systems without filtration only because those
10 watersheds retain much of their rural and
11 agricultural land uses, and because DEP, together
12 with upstate landowners, has created a vigorous
13 system of land use controls. This waiver is
14 possible only because the City is meeting very
15 stringent criteria, and only four other large
16 cities in the country have received it. New York
17 City could not avoid filtration for the Croton
18 System, which supplies ten percent of our water
19 annually; and as a consequence is now spending
20 more than \$2 billion to build a filtration plant.
21 If the EPA's Filtration Avoidance Determination is
22 revoked, because of the impacts from natural gas
23 drilling, a much larger filtration plant for the
24 Catskill/Delaware System will have to be built,
25 that we estimate could cost \$10 billion to

1
2 construct, and \$100 million per year, every year,
3 to operate. That translates to a 30 percent
4 increase in the price of water and sewer service,
5 currently paid by New York City residents. While
6 we are still assessing whether drilling in the
7 watershed can be done safely under any
8 circumstances, if the State decides to permit this
9 activity, then it must include an account for the
10 cost of a filtration plant, and its operation, in
11 any regulatory framework that would allow drilling
12 in the watershed. Failure to do so would impose a
13 massive, unfunded mandate on the City and its
14 water rate payers, who are already bearing the
15 cost of several billion dollar projects that are
16 driven by such mandates. In recognition of this
17 growing problem, Governor Patterson recently
18 mandated an Executive Order 17 that the fiscal
19 impact of any legislative or regulatory proposal
20 that imposes a mandate should be evaluated to the
21 fullest extent possible, to consider the cost to
22 local governments. The significant potential
23 costs of allowing drilling in the watershed cannot
24 simply be passed onto New York City, and must not
25 be ignored as this process moves forward. In view

1 of the potential costs of repairing any damage
2 caused by natural gas drilling, the
3 Catskill/Delaware Watersheds deserve state
4 protection. In the past, the State has enacted
5 special protections for the residents who rely on
6 surface water from the Great Lakes by closing the
7 beds of Lakes Ontario and Erie to gas exploration.
8 This precautionary approach is appropriate for the
9 Catskill/Delaware Watersheds. The nine million
10 New York State residents who depends upon
11 Catskill/Delaware water deserve the same amount of
12 protection as those New Yorkers who depends upon
13 Great Lakes surface waters. I appreciate that DEC
14 Commissioner Grannis is concerned about the
15 impacts of natural gas drilling on New York City's
16 watershed. DEP's strong working relationship with
17 Commissioner Grannis and his staff is reflected in
18 the fact that the draft SGEIS responds to some of
19 the comments we submitted on the proposed scope of
20 the document. I hope that Commissioner Grannis
21 will favorably consider our requests for an
22 extension of the draft SGEIS comment period to
23 allow time for stakeholders such as New York City
24 to submit more detailed comments. We recognize
25

1
2 and appreciate that Commissioner Grannis has
3 already scheduled a hearing in New York City, as
4 you've already observed, on November 10th at
5 Stuyvesant High School. We would welcome
6 additional hearings in the City. In closing, the
7 high stakes involved when considering natural gas
8 drilling in our unfiltered watersheds, mean that
9 DEC must consider very seriously all of the
10 comments and suggestions DEP has made to date on
11 this issue, and will make in the future, and
12 carefully weigh the risks and consequences. That
13 completes my part of the presentation, and with
14 the Chairman's permission, I'll ask Deputy
15 Commissioner Paul Rush to complete our testimony
16 this morning with his presentation.

17 CHAIRPERSON GENNARO: Hello? Okay.
18 And that would be fine, and I'll save my questions
19 and comments for your part of the statement,
20 Steve, once, once Paul finishes his presentation.
21 Just a couple of housekeeping items, I think it'd
22 probably be a good idea for us to close the back
23 door, if I could direct the sergeant to do that,
24 we have some noise coming in from the rotunda.
25 And usually for us it's a little warm up here,

1
2 under the lights, but it's very comfortable here,
3 making me wonder whether or not it's cold out
4 there. Is it cold in the audience? Are you guys
5 are okay? Okay, fine, fine, fine. Okay, okay.
6 You know, because usually when we're very warm up
7 here, you guys are comfortable; usually when we're
8 comfortable, you guys are cold. So, if you guys
9 are comfortable, fine. I'm just trying to be a
10 good host here, I have a lot of people, you know,
11 I already promised donuts for the next, you know,
12 time we all get together. I'm just, I'm just
13 trying to be polite. And so, and we're also
14 joined by Council Member Koppell from The Bronx,
15 we're pleased to have him here today. And without
16 further ado, Mr. Rush, if you could present your
17 PowerPoint.

18 PAUL RUSH: Thank you, Mr.
19 Chairman. Today we'll be going over the results
20 of the initial study that DEP has begun into
21 understanding the possible impacts of natural gas
22 exploration, the watershed, and possible impacts
23 on the city's water supply. We're going through
24 how development could impact the findings of our
25 assessment, initial assessment study. It also

1 quickly at the end, some pictures from a site
2 visit we took in Pennsylvania of a drilling's,
3 active drilling location. This is the overview of
4 the New York City Water Supply System. I'm sure
5 many of you are familiar with this. The primary
6 source of the City's supply is the Catskills. 90
7 percent of our supply comes from that location,
8 and that's the area that's targeted presently for
9 natural gas exploration, since it's underlain by
10 the Marcellus Shale. Why is there interest in the
11 Catskills? And why is there interest in our
12 watershed for this, for natural gas? A
13 combination of two things, the construction,
14 reconstruction of a major gas transmission line
15 that passes just south of our watershed, through
16 the southern, from the southern tier of New York
17 to the New York City area, the Millennium Pipeline
18 provides a quick route of gas that could be
19 produced in this region to access markets in the
20 northeast. That combined with increasing prices
21 of gas in the past year, made the Marcellus Shale
22 formation, particularly in New York State, a very-
23 -very interesting for drillers. Natural gas
24 production in New York State is not new. The
25

1 first natural gas development in the country
2 occurred in New York State. The village of
3 Fredonia was lit with natural gas, the result of a
4 well drilled here, Fredonia in the western part of
5 the state in 1820. What is new is the targeting
6 of unconventional gasses with hydrofracturing
7 technology through horizontal boring. That is
8 new. It's estimated that oil and gas in New York
9 State produced in 200--in the year 2008, about
10 just under \$500 million in revenue. The Marcellus
11 Shale formation underlays the entire west of
12 Hudson watershed, the entire area. This formation
13 is also one of the location with the thickest
14 portions of this rock, making it particularly
15 attractive to drillers. And it's a
16 nonconventional source of rock. Traditional
17 natural gas formations have been done in areas
18 where there's salt domes, pockets of gas that
19 could be readily accessible by vertical drilling,
20 the gas would float to the surface.

21 Nonconventional rock is the gas is held very tight
22 in shale formations, and it's not released easily.
23 And the releasing of it requires hydraulic
24 fracturing to create fissures. Although the base
25

1
2 of the Marcellus Shale occurs about 3,000 to 7,000
3 feet below the surface, it still poses a risk to
4 our surface water supply. This is a quick
5 overview of the hydrofracturing process itself.
6 First there's a vertical well that's drilled down
7 to the target formation, in this case the
8 Marcellus Shale, and then from there, the
9 multidirectional drill drills, drilled in
10 different location directionally for thousands of
11 feet through this target formation, which is a
12 very tight shale gas. And it doesn't have natural
13 fissures, and gas does not naturally flow into the
14 collection system, into the drilling rig. So
15 what, what drillers have to do to allow the gas to
16 flow is first, after going down and drilling the
17 rig, putting the lines down, is they have to use
18 explosive charges to create holes in the casing in
19 the deep target formation, to blast holes. After
20 doing that, they add chemicals under high
21 pressure, mix largely water, but mixed with
22 chemicals of concern, and sand, and then at a high
23 pressure fissures are created in the rock. And
24 these fissures are held open by the sand that's
25 used as a prop inside the, to hold open these

1 fissures, to allow the gas to flow from the target
2 formation up to the surface, and requires large
3 quantities of water, from two to nine million
4 gallons is what we estimate in order to do this.

5 And this entire operation, if combined inside the,
6 and there was perfect knowledge of the shale, and
7 they were able to confine it inside the formation,
8 there might not be as much concern, but there's

9 the risk that this could migrate to other

10 formations through naturally occurring fissures

11 and fractures in the rock, that occur in the

12 Catskills. And these are not all understood and

13 not all mapped. This is a picture shows a natural

14 gas development site, just showing the large

15 amounts of truck traffic and the industrial

16 activity that would be required to develop the

17 site. Each site would require at least two to

18 five acres of disturbance, not including the

19 access roads that would be needed to be built to

20 reach there, and could result up to 500 to 800

21 truck trips, bringing chemicals, water, - -, and

22 two to nine million gallons of stimulation water

23 would have to be transported from elsewhere, that

24 poses a risk and it brings into question where

1
2 that water would come from. And although it's
3 mostly stimulation water, it is water itself, one
4 to five percent of the total volume of fluid used
5 are chemicals. And even after the gas, the
6 initial placement of production occurs, and the
7 development of the well occurs, there's still, on
8 average, about 15,000 gallons of water produced
9 at, on the site, that would have to be treated
10 long term. But this past, this past January, a
11 consultant was hired to really look into and
12 better inform New York City DEP on what the
13 impacts of natural gas really could be on the
14 watershed. DEP is well staffed with engineers
15 specializing in water. We were not well staffed
16 with petroleum engineers. And we thought it would
17 make sense for us to best understand what was
18 occurring, what the potential risks are, as we
19 develop our position on the issue. The assessment
20 focused on the potential impacts to water quality,
21 and had two components: a rapid impact
22 assessment, which is what I'm presenting today;
23 and a final assessment report, which will be
24 completed at the end of the year. In addition to
25 this, there's technical assistance as we prepare

1
2 our comments on the SGEIS. The rapid impact
3 report's been complete, the final impact
4 assessment report is due by the end of the year.
5 Regarding the DEC SGEIS, the JV has reviewed the
6 initial scope for that, provided comments. Once
7 the draft is released and it has been released,
8 the joint venture is working with us and DEP
9 staff, about 25 persons in total, to develop
10 comments. And we want to do a thorough a job as
11 possible, and we've asked for additional time to
12 allow us to do that. So, the rapid impact was
13 designed to provide us with basic information on
14 the potential impacts, it was not--it was not
15 designed to really, to provide us, it was not
16 designed to be a policy statement, it was designed
17 to inform us on the facts surrounding natural gas
18 issues. And also allowed us to provide areas, or
19 identify areas, for further investigation. So we
20 looked at natural gas development throughout the
21 country, we looked at the regional hydrogeology
22 and the potential for water quality signature, how
23 we could identify if there were impacts as the
24 result of natural gas drilling to occur. We
25 looked at drilling data we could find, and with as

1
2 much information as possible as we could find on
3 fracturing fluids, and we looked at issues in
4 other states and regulations in other states; and
5 also focused on DEP's significant infrastructure
6 in the Catskills that could be affected by this
7 activity. And the findings of our analysis, that
8 every activity associated with natural gas
9 drilling involves some risk to the water supply, I
10 don't think that's any surprise. Many are similar
11 to risks at construction sites, but the chemical
12 and waste water risks are really unique to this
13 industry, and something we've never seen before in
14 the watershed. And also I think a logical
15 conclusion is the level of impacts in the
16 watershed would be related to the magnitude of
17 natural gas development. One or two gas rigs in
18 the watershed may not have a measureable impact on
19 the City's water supply, but the history of the
20 industry is to go into an area and develop it
21 rapidly and as quickly as possible. And that's a
22 good business practice in terms of economic, as
23 economically as possible to extract the resource
24 and deliver it to the customer. That is what is
25 one of the greatest concerns we have, is the

1 possible rate that this could occur. The photo
2 here is of a natural gas formation, not a
3 conventional formation, in Louisiana, where
4 development has occurred recently. And what you
5 see are a number of drilling pads located
6 throughout this countryside. And you can get an
7 idea of the density of development. And this is,
8 this appears in Louisiana to be a non-forested
9 area. Maybe that's not a big deal in Louisiana,
10 but the New York City watershed is 78 percent
11 forested, and this could be a significant change
12 in the land uses in the watershed that could have
13 an impact. The graphic below gives an idea of
14 what is used in the fracturing fluid. It's
15 largely water, and then as a small portion, about
16 two to three percent, is fracturing chemicals,
17 which consist largely of an acid; and then a
18 number of other that some of them are food grade
19 chemicals, such as xanthan gum, but many of them
20 are toxic chemicals, heavy metals and biocides
21 that pose a great concern to us in the fate of
22 this fluid; whether it migrates out from the
23 drilling site or eventually impacts the water
24 supply. We also looked at the possible impacts
25

1 that this activity could have on water quantity.
2
3 And withdrawals, this activity is going to require
4 a large quantity of water to do the hydraulic
5 fracturing. Where that water comes from and when
6 it's extracted could have direct operational
7 impacts on our water supply. Particularly in the
8 Esopus Creek, it could impact our operations
9 directly, where we have flow requirements in the
10 creek, concerning our diversion from Schoharie
11 Reservoir to Ashokan Reservoir, that could require
12 us to operate in a way we may not operate and
13 reallocate water supplies. And in the Delaware
14 Basin, there's recently an application put forth
15 by Chesapeake Appalachia to extract water directly
16 from the west branch of the Delaware, that if
17 approved could've directly required New York City
18 to make up the difference in the extraction in
19 terms of releases from our reservoir. In the
20 Catskill Watershed, there is no regulations in
21 place concerning allocations of water for this
22 activity. In the Delaware Basin, the Delaware
23 River Basin Commission has authority, and there is
24 a regulating mechanism in place. And I'm pleased
25 to say that within the past two days Chesapeake

1
2 has withdrawn their application to the Delaware
3 River Basin Commission [applause] to take water
4 directly out of the Delaware. We're very happy,
5 we're very happy with that news.

6 CHAIRPERSON GENNARO: So are we.

7 PAUL RUSH: I can tell. Other
8 highlights of the rapid impact assessment, we
9 looked through geologic records, and when the
10 Board of Water Supply constructed the water system
11 in the 1900s through the 1960s, they took, they
12 went through painstaking detail to understand the
13 geology, where our tunnels, where our dams would
14 go. We've reviewed these records, and other
15 information available, to understand the potential
16 impacts that could occur on infrastructure. And
17 what we found is that hydraulic fracturing and
18 drilling in close proximity to critical New York
19 City infrastructure, could lead to perpetual
20 structural impacts. And of particular concern are
21 our tunnels. And our tunnels to transmit water to
22 New York City do not all go through the New York
23 City Watershed, they go outside of the New York
24 City Watershed. One tunnel in particular, the
25 West Delaware Tunnel, passes very close to, not

1 far away from the Millennium Pipeline, though the
2 town of Hancock, where there have actually been
3 applications already prepared and submitted to
4 DEC, for drilling. And getting protections to
5 ensure even outside the watershed that our
6 infrastructure is protected, it is very important
7 to us. As these tunnels were constructed, the
8 West Delaware Tunnel, there was actually natural
9 gas detected in the tunnel during construction.
10 It does not pass through the Marcellus Shale, but
11 there is apparently a connectivity to some of that
12 gas bearing formation that was identified during
13 the construction time. So we are very concerned
14 about that activity that's outside the watershed.
15 To give an overview of this presentation, this is
16 a picture we normally do not use in DEP
17 presentations, a map of the entire United States.
18 But it gives an idea of the different shale plays,
19 the unconventional plays, and plays are areas
20 where natural gas can be developed in the United
21 States, showing that not only does the Marcellus
22 Formation exist underneath our watershed, there's
23 also a formation known as the Utica Shale that
24 could be a potential for interest later on. Right
25

1
2 now drillers are interested in Marcellus, but down
3 the road there's another formation that they may
4 target. A rapid impact assess--analysis looked at
5 some case studies to understand what has happened
6 elsewhere. We looked at eight states, looking at
7 formations where shale existed, similar to
8 Marcellus Shale. And we found that different
9 failures occurred with every activity associated
10 with drilling. And I think this is no surprise,
11 human error was a leading cause of problems, when
12 a cause was determined. Systematic failures
13 generally were related to the lack of regulations,
14 such as using unlined waste water pits, or the
15 lack of enforcement of regulations. Many states
16 have recently revised during the process of
17 revising their regulations. The final impact
18 assessment which we're in the process of working
19 on right now, will consist of some specific
20 technical memos concerning our infrastructure,
21 which I highlighted previously. Some analysis of
22 some "what if" scenarios, what the risk is to the
23 watershed, in terms of the quality of the supply
24 and the quantity of the supply. And we plan on
25 having this document geared to a nontechnical

1 audience and have a brief synopsis of each
2 component so there's good understanding by DEP and
3 that the public can understand this as well. The
4 conclusions of the rapid impact assessment: the
5 site preparation on the surface is likely increase
6 erosion and runoff into the reservoirs; the
7 changing of characteristics by this activity
8 through multiple drilling locations, this is not a
9 preferred use as compared to forests that largely
10 exist in the watershed. Also, the well bore
11 itself, by drilling through these formations, can
12 allow a conduit for previously isolated
13 contaminants to flow to the shallow ground water
14 or surface water from deep formations. We're
15 finding that there's also naturally occurring
16 radioactive matter in some of the deep formations
17 that are much older than the surface formations.
18 The water in these formations are also quite
19 saline, and it's not water that you would like to
20 drink, and we're concerned about the migration
21 about that through the conduits that would be
22 created. The stimulation of the well through the
23 fracking introduces hazardous chemicals into the
24 watershed, as we mentioned earlier. Just the
25

1
2 introduction poses a risk. The water withdrawals
3 for hydrofracking will have or could have direct
4 water supply operational impacts, immediate. And
5 if the scale of this occurs as it may occur, these
6 impacts could be significant. Plus, the
7 hydrofracking process itself creates large volumes
8 of industrial waste water that cannot be
9 effectively processed by conventional treatment.
10 The plants don't exist right now to handle this,
11 and that's an issue that would have to be resolved
12 even if this activity occurred in someone else's
13 watershed. Our next steps, you know, the rapid
14 impact assessment has provided with an overview of
15 what the potential impacts are, and this work in
16 supports a level of concern about the potential
17 water supply impacts that we've highlighted. So
18 what we're going to do now is focus our remaining
19 work on what the inherent uncertainties are, and
20 the risk to DEP, and to the water supply of the
21 City of New York. One of the areas I highlighted
22 is the buffer distance around our aqueducts and
23 facilities, which extends outside of the New York
24 City watershed. I have a few slides just to show,
25 if you still have a little bit of time, just to

1 show a drilling rig where we did a site visit,
2 just south of Elmira in Bradford County,
3 Pennsylvania. We had DEP staff and our consultant
4 go out there. This is the Judd Well under
5 construction, typical drilling rig, similar to
6 what's been used for years, which allows the
7 lifting of large pieces of pipe and drilling
8 equipment to go to deep elevations, or deep
9 depths. This is the drilling bore, with the drill
10 bit going down into the well. This is a mud pit.
11 Mud pits are used for different things, but this
12 mud pit is used to recycle water on site.
13 Bentonite clay is used as a lubricant. The
14 driller's economic interest is, interest in
15 recycling as much water as possible, and this is
16 where he, where the water, the driller puts the
17 water to process it to recycle. It is then
18 recycled through extracting equipment. The
19 impact, they have to take certain measures to deal
20 with storm water and erosion control, and here
21 they've built berms all around the site. But
22 there's a large amount of equipment and chemicals
23 that are brought to these sites that would not
24 exist otherwise in the watershed, that pose risks.
25

1
2 So this is an industrial activity in the
3 watershed, which we have not seen before, and we
4 have concerns. Even after the well goes into
5 production, the product that comes out, the
6 natural gas, has to be dehydrated and there's
7 produced waste water that needs to be stored on
8 site and then transported elsewhere for treatment.
9 So even after the initial production, this is an
10 issue that goes on and on as long as the wells are
11 in production. And in addition to that, there's a
12 need to transmit this gas to consumers, and which
13 requires the construction of pipelines to reach
14 the larger transmission lines, which have impacts
15 as well. And that concludes my presentation,
16 pending your questions.

17 CHAIRPERSON GENNARO: Well, my
18 first--[applause] yes, please, I will certainly
19 allow that. My first response is thank you.
20 Thank you, Mr. Rush, for this comprehensive
21 presentation. I knew it was something that,
22 notwithstanding its length, I certainly wanted to
23 allow, because of all the good information that it
24 has brought forward to all the people here. And
25 let me pose some of my own questions. Oh, and

2 we're also joined by Council Member Eugene, happy
3 to have Dr. Eugene with us, a valued member of the
4 Committee, and I appreciate your being here. Just
5 with regard to the amount of time that we're
6 asking of the state to do more review to put
7 forward the best comments that we possibly can,
8 DEP has formally requested 45 additional days.
9 And are you confident that that's the amount of
10 time that it's going to take, or is it, was it one
11 of these things that if we ask for 60, or if we
12 ask for 90 days, there, you know, and you just
13 wanted to ask for something that you thought
14 they'd be more likely to grant?

15 STEVE LAWITTS: No, we believe, Mr.
16 Chair, that 45 additional days--

17 CHAIRPERSON GENNARO: Right.

18 STEVE LAWITTS: --beyond the 60
19 default days--

20 CHAIRPERSON GENNARO: Right.

21 STEVE LAWITTS: --will provide us
22 sufficient time, once we complete the detailed
23 assessment that Deputy Commissioner Rush spoke of,
24 in December, to analyze that assessment and
25 reconcile it with the state's draft environmental

1
2 impact statement to enable us to submit fully
3 informed comments on the draft EIS, taking into
4 account that much more detailed information that
5 will be produced.

6 CHAIRPERSON GENNARO: Sure. And
7 let's talk a little bit about, if you can, the
8 kinds of talks that may be taking place on the
9 staff level, between DEP's staff and DEC staff.
10 Is there some kind of ongoing talks regarding the
11 City's concerns? Or is it the case that the City,
12 through you good efforts, had made a communication
13 to the governor you had spoke about, you went to
14 the State Assembly the other day to make this
15 presentation, and you've issued certain letters
16 and certain documents that you want them to
17 consider, in addition to your formal comments.
18 But is there some kind of, you know, ongoing
19 colloquy between DEP and DEC on these issues, on a
20 daily or weekly basis, to go through some of these
21 things?

22 STEVE LAWITTS: Well, we have been-

23 -

24 CHAIRPERSON GENNARO: To the extent
25 that you can discuss that.

2 STEVE LAWITTS: We have been,
3 we're, as a general statement, we are in nearly
4 constant communication with both DEC and the New
5 York State Department of Health, on a number of
6 issues affecting DEP, both in terms of drinking
7 water and waste water. But apart from the more
8 formal communications, the letter I sent to DEC
9 Commissioner Grannis on September 25th four weeks
10 ago, four weeks ago today, the letter that we sent
11 to DEC immediately following their release--

12 CHAIRPERSON GENNARO: Right.

13 STEVE LAWITTS: --on the draft
14 Environmental Impact Statement, that was the
15 letter that specifically requested a 45 day
16 extension until January 15th, to submit comments.
17 And discussions at the staff level at the State
18 Department of Health about our need to have them
19 involved in assessing the health risks associated
20 with natural gas drilling in the watershed. We
21 have not, there hasn't been a lot of feedback from
22 the state.

23 CHAIRPERSON GENNARO: Right, right.

24 And are you at all sanguine that the State
25 Department of Health as the, you know, water

1
2 quality regulator, the ultimate water quality
3 regulator in New York State, but also an entity
4 that is not lead agency in this process with
5 regard to the whole EIS, are you sanguine about
6 their willingness to play some kind of productive
7 role along the lines that DEP has indicated that
8 they should?

9 STEVE LAWITTS: Well, we're very
10 concerned, Mr. Chair, that the State Department of
11 Health be very active in addressing our concerns,
12 and the concerns of the nine million people who
13 consume our water, as this environmental review
14 process goes forward. As we testified, and I
15 think as you already alluded to, Mr. Chair, the
16 State Department of Health, while not the lead
17 agency in this environmental review process, is
18 the lead agency in effect for overseeing our
19 compliance with all of the watershed protection
20 programs that have been in place since 1997, to
21 avoid filtration, to avoid that expenditure of \$10
22 billion dollars, plus \$100 million dollars a year.
23 And it, so we, as the chief enforcer of our
24 compliance with the filtration avoidance, we feel
25 it's critical for the State Department of Health

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25

to weigh in on--

CHAIRPERSON GENNARO: Right.

STEVE LAWITTS: --on the health risks. It seems--

CHAIRPERSON GENNARO: You've asked them to do that.

STEVE LAWITTS: It seems to us that, you know, on the--there's almost 180 degrees difference between the goals that we have, under the filtration avoidance. For instance, purchasing thousands of acres--

CHAIRPERSON GENNARO: Right.

STEVE LAWITTS: --of land from willing sellers, in order to keep that land, as Paul Rush indicated, forest-like and pristine, to have that as a specific goal. And as you know, Mr. Chair, and--

CHAIRPERSON GENNARO: Sure, sure.

STEVE LAWITTS: --as you said specifically, costing \$241 million to further advance the land acquisition, to have that as a goal on the one hand, and then to open that very same land up to drilling and all of the vehicles and construction equipment, and chemicals, and

1
2 holding tanks, and everything else that we just
3 showed you, goes with natural gas drilling.

4 CHAIRPERSON GENNARO: Sure. And
5 have they, that is the State Department of Health,
6 formally declined to involve itself in a
7 significant way? Or they are just, you know,
8 contemplating your request for them to do so?

9 STEVE LAWITTS: I would say at this
10 point they're in a contemplation mode. [laughter]
11 They're contemplative.

12 CHAIRPERSON GENNARO: Right. And
13 I'd like to also point out that we're joined by
14 Council Member Crowley from Queens, a member of
15 the Committee, pleasure to have Liz with us today.
16 And in the absence of the State stepping forward
17 and in some, you know, reasonable way, trying to
18 do all they should do, this is the State
19 Department of Health, as the custodians for the
20 State's drinking water quality, would it make any
21 sense for the City on its own to endeavor to
22 commence watershed rulemaking that would lay out
23 protective measures for the watershed as DEP and
24 the City have the statutory right to do; however,
25 we all know that such rulemaking would have to go

1
2 past the State for its, for its muster. I'm just
3 trying to think tactically and, you know, with
4 some kind of strategic view here, that DEP has
5 done the right thing in asking the State
6 Department of Health to come into the process, to
7 play its, to play a forceful role as the ultimate
8 water quality regulator, or drinking water quality
9 regulator in the State, and in them failing to do
10 that, for the City to essentially do a rulemaking
11 that would withdraw that rulemaking, you know,
12 into the Department of Health's core, saying "We
13 asked you to come in, we asked you to do
14 something, you didn't do something, so we did
15 something to try to protect our water supply. And
16 now you folks have to, in making an assessment of
17 the City's rule maker, making, it'd be up to them
18 to make the case that the City's rules that are
19 put, that it would put forward in the face of this
20 threat, somehow are not needed. And that would be
21 a case that they would, not that I'm an expert on
22 the process, but they would have to give the
23 reasons for stating why such rulemaking by the
24 City is not necessary, which would kind of squeeze
25 them a little bit. And put them in this

1
2 situation. Not that a regulated entity like the
3 Department--like DEP, you know, relishes some kind
4 of, you know, hostile, you know, regulatory kind
5 of back and forth, because at the end of the day,
6 you know, we're the regulated entity, and they're
7 the regulator. They're sort of like the big bully
8 and we're, you know, and we're not. So, I was
9 just wondering if, if it is contemplated that if
10 the State doesn't do the right thing, step
11 forward, use their powers to, you know, look out
12 for the water quality for half the residents of
13 the state, that why don't we do it on their own,
14 and throw it over to them and have them tell us
15 that our rules are necessary.

16 STEVE LAWITTS: Thank you.

17 CHAIRPERSON GENNARO: Long question
18 [applause]

19 STEVE LAWITTS: I'll try to answer
20 the many parts of your question, Mr. Chair.

21 CHAIRPERSON GENNARO: Okay.

22 STEVE LAWITTS: The first, our
23 number one priority, if we haven't made it clear
24 already, is protection of the water, plain and
25 simple. And we will do whatever we have to do to

1
2 protect the water, and that includes exploring all
3 legal options available to us, if we don't feel
4 that the State at the end of this environmental
5 review process, has imposed sufficient protections
6 of the watershed. And since the State Department
7 of Health has not yet formally indicated its
8 involvement in the study that we've been
9 requesting them to do, it underscores all the more
10 our need to have this extension of time until at
11 least the middle of January, so that we can use
12 the more detailed results from the final phase of
13 our consultant effort, to produce a comprehensive
14 assessment of the potential health risks of
15 natural gas drilling, if the State Department of
16 Health, especially if the State Department of
17 Health, doesn't participate as fully as we need
18 them to. In terms of our promulgating regulations
19 in the watershed, we can, of course, we can
20 promulgate stronger protections and criteria. We
21 cannot outright ban a particular activity, so our
22 challenge will be working within the limitations
23 we have to promulgate regulations that would
24 provide the strongest possible protections.

25 CHAIRPERSON GENNARO: I see. So,

2 even our, your rulemaking authority, has limits as
3 to what it would actually be able to do.

4 STEVE LAWITTS: That's correct.

5 CHAIRPERSON GENNARO: Well, thank
6 you. And--Council Member Recchia has a question,
7 and I recognize Council Member Recchia for
8 questions.

9 COUNCIL MEMBER RECCHIA: You--on
10 slide number eleven, which is the rapid impact
11 analysis, highlights water quality. You talked
12 about that it could have impact on the watershed,
13 the drilling. Okay. That--what would the impacts
14 be? What exactly were you, you know, could you
15 define impacts?

16 STEVE LAWITTS: Well, just--

17 COUNCIL MEMBER RECCHIA: I mean, I
18 have an idea, but I just need to hear from you.

19 STEVE LAWITTS: One, if you just
20 look at the picture--

21 COUNCIL MEMBER RECCHIA: Yeah.

22 STEVE LAWITTS: --just, you know,
23 no pun intended, on the most surface level that it
24 would be certainly a dramatic visual change to the
25 watershed. If you can imagine--

2 COUNCIL MEMBER RECCHIA: So, you're
3 talking about like the forest and the trees.

4 STEVE LAWITTS: If you can imagine
5 this scene being substituted for forest, having
6 the land dotted by dozens of drill sites. But
7 more, of more concern than the visual impact, of
8 course, is construction equipment. I mean,
9 turning the forest into active construction areas,
10 constructing roads, constructing drill pads,
11 wells; the contamination potential from the
12 hydrofracturing process; the injection of the
13 toxic chemicals below the surface. The, as Deputy
14 Commissioner Rush indicated, the risk that comes
15 from undocumented fishers below the surface, to
16 bring contaminants that may already be below the
17 surface up to the surface. We talked about
18 radiological concerns, and we--concerns about
19 water quantity, because of the massive quantities
20 of water required for the hydrofracturing process.
21 And we touched upon human error as being the
22 leading cause in accidents that have happened in
23 other hydrofracturing drill sites.

24 COUNCIL MEMBER RECCHIA: Those
25 accidents caused to contaminate the water?

2 STEVE LAWITTS: They can cause
3 contamination of the water, they could cause--they
4 could destroy portions of our infrastructure. We
5 have our two aqueducts, our Catskill and Delaware
6 aqueduct, and the Delaware aqueduct is actually
7 several, you know, several long tunnels, hundreds
8 of feet below the surface.

9 COUNCIL MEMBER RECCHIA: Well,
10 that's, yeah, I was, that was going to be my next
11 question.

12 STEVE LAWITTS: And--And just, if
13 the Council can imagine, and we have an example
14 right here in the City, that several times a year
15 water mains are broken by accident because
16 contractors working on the street accidentally
17 drill through a water main, a water main which
18 lies only four or five feet below the surface,
19 that the contractor should know is there. There's
20 that same potential for human error to drill
21 through one of our tunnels hundreds of feet below
22 the ground.

23 COUNCIL MEMBER RECCHIA: And that's
24 the Western Delaware Tunnel?

25 STEVE LAWITTS: The Delaware

2 Tunnel.

3 COUNCIL MEMBER RECCHIA: Delaware

4 Tunnel.

5 STEVE LAWITTS: And the Delaware

6 Tunnel--

7 COUNCIL MEMBER RECCHIA: How far is
8 that from where they want to drill?

9 STEVE LAWITTS: It's underneath.

10 COUNCIL MEMBER RECCHIA: So they
11 want to go underneath our tunnel--

12 STEVE LAWITTS: Our entire west of
13 Hudson Watershed lies on top of the Marcellus
14 Shale.

15 COUNCIL MEMBER RECCHIA: Okay,
16 that's--so they want to go underneath--

17 STEVE LAWITTS: And the Delaware
18 Tunnel and the tunnels that feed into it
19 collectively supply the City with 50 percent of
20 its drinking water on average every day. So,
21 somewhere on the order of 500 million gallons a
22 day--

23 COUNCIL MEMBER RECCHIA: Okay,
24 thank you.

25 STEVE LAWITTS: --are at risk.

2 CHAIRPERSON GENNARO: Thank you--

3 STEVE LAWITTS: Oh, I'm sorry, one
4 more area of risk--

5 CHAIRPERSON GENNARO: Sure.

6 STEVE LAWITTS: I--turbidity, which
7 is, it's a measure of water quality, and it's one
8 on which we're highly regulated, it's cloudiness
9 in the water, and we go to great lengths and
10 expense to minimize the amount of cloudiness in
11 the water. The more activity, the more drilling
12 activity that occurs in the watershed--

13 COUNCIL MEMBER RECCHIA: The more
14 cloudy it gets.

15 STEVE LAWITTS: Yeah, the more
16 runoff--

17 COUNCIL MEMBER RECCHIA: --runoff--

18 STEVE LAWITTS: --is potential and
19 turbidity, and that causes violations of drinking
20 water regulations.

21 COUNCIL MEMBER RECCHIA: Thank you.

22 CHAIRPERSON GENNARO: Thank you.
23 Thank you, Council Member Recchia. And--one of
24 the things that we're faced with is the stark
25 difference between the findings of, sort of the

1
2 ongoing findings of the DEP consultant study, and
3 those consultants that have been employed
4 regarding the DEP, that have essentially dismissed
5 and, you know, minimized the concerns. And is
6 part of your effort to take a look at some of
7 those findings that have come out from the State,
8 you know, DEC consultant, and essentially
9 challenge them, or you know, debunk them, or
10 whatever the appropriate term would be. Is that,
11 is that something we're seeking to do?

12 STEVE LAWITTS: Yes, that's--that's
13 exactly the challenge, Mr. Chair. The draft of
14 environmental impact statement and the supporting
15 reports are approximately 1,000 pages of, of
16 materials, that we feel it's important for us to
17 go through all relevant pages in detail, and to
18 make sure that they provide sufficient protection
19 to the watershed. As we had indicated in the
20 testimony, while, to the extent we've been able to
21 review the draft or portions of the draft, and
22 it's, it is a monumental effort to do that, and as
23 Deputy Commissioner Rush had said, and this bears
24 repeating: we have more than 25 individuals
25 working to analyze the draft environmental impact

1
2 statement. Those 1,000 pages between consultant
3 staff and in-house staff, our in-house, we have
4 considerable in-house expertise, as we testified
5 in water quality. We have much less in terms of
6 the specifics of this type of natural gas
7 extraction, so we need to integrate the knowledge
8 we have with the knowledge we're getting from the
9 consultants. We have 25 people reviewing the
10 1,000 pages. We need, we need that additional
11 time. And we, we know from, we believe, from our
12 review so far, for the relatively little time that
13 we've had this document, that there are specific
14 areas of concern that we do not see addressed to
15 our satisfaction in this document.

16 CHAIRPERSON GENNARO: Thank you.

17 STEVE LAWITTS: I'm sure we'll find
18 more.

19 CHAIRPERSON GENNARO: Sure, sure.
20 No doubt about that. And just kind of thinking
21 out loud here, when we were going through
22 everything that we did, those of you in the room
23 that were part of this process in the early 1990s,
24 with the blue ribbon panel report that was put out
25 that spoke to whether or not the City's watershed

1 would even be a candidate for filtration
2 avoidance, and all of the yelling and screaming
3 that went on to ultimately result in the, you
4 know, 1997 MOA, and the FAD, the you know, federal
5 government was very much, of course, a, you know,
6 part of that process. Now, of course, the role of
7 the overseer of the FAD has devolved to the State,
8 and EPA is not as much a presence as they, you
9 know, were once upon a time. And is there
10 anything that we can do with regard to EPA and the
11 federal government that was so deeply invested, it
12 seemed--well not it seemed, they were, they were
13 deeply invested in working with us, you know, to
14 some, to come to some sort of agreement, you know,
15 regarding the first FAD, regarding the second FAD.
16 And is there any way that they can be engaged to
17 be, you know, voice of reason on this. I don't
18 know what--or, you know, how that would work. But
19 they were, you know, so invested once upon a time,
20 in our success, with, you know, how do you do
21 filtration avoidance in a watershed that has
22 development in it. Like, is there a way to do
23 that, they're involved in a very significant way.

25 STEVE LAWITTS: Well, we--

2 CHAIRPERSON GENNARO: And so, how's
3 that going with them, and to what extent can they
4 be called upon to bring some reason to this
5 process?

6 STEVE LAWITTS: Well, we, we will
7 involve the EPA, Mr. Chair. As you observed, they
8 granted the filtration--

9 CHAIRPERSON GENNARO: Yes.

10 STEVE LAWITTS: --avoidance
11 determination, and when the avoidance
12 determination was extended for an unprecedented
13 ten year, ten years--

14 CHAIRPERSON GENNARO: Yes.

15 STEVE LAWITTS: --from 2007 through
16 2017, it, EPA was part of that announcement, a
17 significant part of that announcement. So, we,
18 again, I go back to what I was saying earlier, we
19 have, in order to comply with all of the
20 commitments we've made as part of getting the
21 filtration avoidance determination, and it's
22 unprecedented ten year extension, all the
23 protection programs we have in place, the land
24 acquisition, the agricultural programs, stream
25 management, all of that. And as you observed in

1
2 the beginning, we have invested over \$2 billion as
3 part of maintaining filtration avoidance. We feel
4 that natural gas drilling without very, very
5 robust protections in place, is moving in the
6 opposite direction that we've been moving for the
7 last twelve years.

8 CHAIRPERSON GENNARO: Right. And
9 as you were speaking, something popped into my
10 mind, and I put this not only to you Steve but to
11 the other sort of legal environmental minds out
12 there who are going to be testifying later, and I
13 don't know if this really, you know, makes sense
14 or not, and I would leave it to those, you know,
15 smarter than I, and more legally knowledgeable
16 than I, to make a determination. But you've
17 reached out to the State Health Department, the
18 ultimate entity that has like the keys to the FAD
19 now, so to speak, and asked them to come forward
20 to do an analysis, to do this and do that, to, you
21 know, exercise their role as like the, you know,
22 steward as our, the ultimate in drinking water
23 quality steward, in the state. For their failure
24 to kind of act on that, would that be grounds for
25 some entity, or whatever, to petition the federal

1
2 government to take primacy for the FAD back from
3 the State to the federal government because the
4 State Health Department has thereby kind of like
5 dropped the ball. Again, that's a pretty big
6 matzo ball for like a regulated entity [laughter]
7 you know, to do, because if it works, it works; if
8 it doesn't work, you know, I think there's going
9 to be heck to pay. But I'm just trying to, you
10 know, think out loud here, as to whether or not
11 that could, you know, form the basis for us,
12 whatever, to go back to the federal government and
13 say that, you know, that you have primacy over the
14 whole FAD, for, you know, all those many years.
15 And you gave it over to the State, you trusted the
16 State to do the right thing, and now on something
17 so common sense we want them to come in and weigh
18 in on this process, and the impact it's going to
19 have on water quality. And they're silent on
20 that, it's like, "Well, maybe we need some other
21 entity to have primacy over the FAD, it should go
22 back to the federal government." I don't know
23 legally how that would work, who would do it, but
24 there are many smart people sitting out here and
25 I'm just trying to have a creative thought process

1 here that can get us to where we want to be.

2
3 STEVE LAWITTS: Yeah, I think as a
4 general statement, Mr. Chair, that when a federal
5 agency like EPA delegates responsibility and
6 authority for overseeing something like the
7 filtration avoidance to a state, it's with the
8 expectation that the state will vigorously monitor
9 compliance with the terms of the filtration
10 avoidance, and maintaining the very superior water
11 quality that the New York City Watershed has. So,
12 if there was a belief that the state wasn't
13 adequately discharging its responsibilities under
14 filtration avoidance determination or otherwise to
15 regulate drinking water quality in New York State,
16 then there certainly could be a call and an
17 underlying reason for primacy to shift back or to
18 revert to the federal government.

19 CHAIRPERSON GENNARO: Right. Okay,
20 that's certainly some, you know, food for thought,
21 and other people who are, you know, legally
22 oriented who want to, who want to opine on that
23 when they come testify.

24 STEVE LAWITTS: I'm sorry, if I
25 could, and, Mr. Chair--

2 CHAIRPERSON GENNARO: Sure.

3 STEVE LAWITTS: --just to expand on
4 it just a bit is we did, before the EPA
5 administration changed, following the presidential
6 election, the previous, the now departed regional
7 administrator of the EPA had indicated the need to
8 get all parties together, all parties being EPA,
9 the State, the City, specifically to address the
10 issues and risks associated with natural gas
11 drilling in the watershed. That meeting didn't
12 happen before the regional administrator left, and
13 under the current EPA administration, there has
14 been no such meeting convened.

15 CHAIRPERSON GENNARO: Right, and
16 now there is an interim regional administrator, is
17 it George, right, is that--?

18 STEVE LAWITTS: George Pavlou, yes.

19 CHAIRPERSON GENNARO: Okay. And
20 he's still acting in that capacity, right?

21 STEVE LAWITTS: Yes, he is.

22 CHAIRPERSON GENNARO: Okay. And,
23 okay, I would say with that, with that said, I,
24 it's difficult for me to express the, you know,
25 gratitude of this Chairman and this Committee and

1
2 this body, for the good work, Paul, that your
3 folks have done. I think this is, is a
4 presentation that, you know, should be used
5 throughout the country, as it's not only going to
6 benefit us in what we're trying to do here, but
7 throughout the country. I am very gratified that
8 you're here today. Very happy with all that
9 you're trying to do to protect the water quality
10 of the nine million people that, you know, drink
11 from the New York City's drinking water supply.
12 And I think your good work will spill over into
13 the rest of the state, and the rest of the
14 country. I'm, you know, happy to partner with the
15 Bloomberg Administration in a very cooperative and
16 constructive way to, you know, to make sense
17 prevail here. And if people want to show their
18 gratitude once again for the wonderful
19 presentation, I will certainly allow it.
20 [applause] So.

21 STEVE LAWITTS: Thank you. Thank
22 you, Mr. Chair. And again, just I want to correct
23 slightly something I'd said earlier when I was
24 thanking you for your leadership on this effort
25 for the last year, it's actually, I know, it's

1
2 been well over a year-and-a-half, and I do really
3 appreciate the leadership you've taken. You've
4 been a very strong advocate of the City doing
5 everything it can to protect the watershed, and I
6 just want to commit to you that our--we have an
7 unwavering obligation and commitment to ensure
8 that there is no risk to the drinking water for
9 nine million state residents.

10 CHAIRPERSON GENNARO: Mazel tov.

11 Okay, thank you. [applause] Thank you, thank
12 you. Thank you, Steve. And Paul and the good
13 team from DEP. Next we are very gratified to be,
14 to hear from our next witness who has been a real
15 champion on this issue. You know, he and his good
16 staff have, you know, put together a document,
17 this is months ago, that is required reading for
18 everyone that has an interest in this very
19 important matter. And that public official, that
20 environmental champion is none other than our own
21 Manhattan Borough President, Scott Stringer, who
22 is gracing us with his presence. [cheers,
23 applause] And the only advice I would have for
24 Scott is when we have these press conferences and
25 we're standing outside, and it is somewhat cold

1
2 that he never wears a coat. And I'm always
3 wearing a coat. But I'm older than him, so I
4 guess maybe I need the coat. [laughter] Or
5 whatever. And but Mr. Borough President, I
6 pleasure to have you here. I thank you for your,
7 you know, great work, and consciousness raising
8 that you've done on behalf of the people that you
9 represent in Manhattan and by extension all people
10 in New York City, and all people in New York State
11 who are, you know, rightfully fearful of what
12 drilling could mean for the precious water that we
13 drink. And with that said, you are most welcome
14 to be here now and any time as we fight this
15 battle. You've been there every step of the way.
16 And I welcome you and you can commence with your
17 good testimony.

18 SCOTT STRINGER: Well, thank you
19 Chairman Gennaro, you're actually way too kind,
20 and I thank you. The reality is that being able
21 to work with you when your longtime leadership on
22 this issue has given all of us the opportunity to
23 rally around the issues that you actually raise
24 when nobody would listen. And I think this
25 hearing today and the work that you've done is a

1
2 culmination of building a movement that you have
3 led with great distinction. And I've actually
4 enjoyed working with you and your staff on this
5 issue. And we have a ways to go, but I really do
6 want to thank you. Not only do we enjoy working
7 with you, but you're a real expert in this.

8 Right? And--

9 CHAIRPERSON GENNARO: Imagine that,
10 imagine that.

11 SCOTT STRINGER: And it's really,
12 it's really enjoyable to learn while work with - -
13 [applause]

14 CHAIRPERSON GENNARO: Right
15 [laughs]

16 SCOTT STRINGER: So let's, let's
17 give this--

18 CHAIRPERSON GENNARO: Right, thank
19 you.

20 SCOTT STRINGER: But I want to
21 thank you and the members of the Committee on
22 Environmental Protection for holding this
23 important and timely hearing on natural gas
24 drilling in the Catskill/Delaware Watershed. I'm
25 here today to briefly explain why the draft

1 Supplemental Generic Environmental Impact
2 Statement provides inadequate environmental health
3 and economic protection for the City of New York.
4 I'm going to submit additional testimony on the
5 technical merits of the SGEIS at the Department of
6 Environmental Conservation Hearing on November 10,
7 2009; however, I believe there are some important
8 details that simply can't wait until that time,
9 and I'm really glad that you had the foresight to
10 hold this hearing. The SGEIS takes a
11 disappointing and reckless position on the
12 protection of the Catskill/Delaware Watershed,
13 exempting less than one-third of the land in the
14 watershed from hydraulic fracturing and permitting
15 the introduction of toxic industrial byproducts
16 produced by gas and oil drilling in an area that
17 provides New York City with 90 percent of its
18 unfiltered water supply. Earlier this year, as
19 you mentioned, my office released uncalculated
20 risk, a report that documented extensive
21 environmental degradation connected to hydraulic
22 fracturing, including over two dozen leaks,
23 spills, contaminations, and explosions in nine
24 different states. If we allow hydraulic
25

1
2 fracturing in the Catskill/Delaware Watershed, an
3 accident adjacent to New York City's unfiltered
4 water supply could introduce the threat of grave
5 human health consequences. I am shocked that the
6 DEC would even contemplate the potential exposure
7 of New York City [cheers, applause]--That the DEC
8 would even contemplate the potential exposure of
9 New York City's unfiltered water supply to the
10 contaminants and carcinogenic chemicals used for
11 hydraulic fracturing. If the environmental and
12 human health consequences of the DEC's proposal to
13 allow hydraulic fracturing are not reason enough
14 for an explicit ban on fracturing in the
15 Catskill/Delaware Watershed, the long term
16 economic toll that drilling would cause must be
17 seriously considered. In July 2007, the City and
18 State reached an agreement on a filtration
19 avoidance determination with the U.S.
20 Environmental Protection Agency, to prevent the
21 construction of a water filtration plant and
22 maintain New York City's water supply in its
23 natural, unfiltered state. Maintaining the
24 filtration avoidance determination is not cheap.
25 The City has already sunk \$168 million into the

1 acquisition of some 70,000 acres of land and has
2 pledged another \$300 million over the next ten
3 years for additional acquisitions. On top of
4 that, the City pays over \$100 million in annual
5 property taxes on this land. The key to the EPA's
6 filtration avoidance determination was the fact
7 that the State's plans for land acquisition meant
8 that a growing amount of land would be unavailable
9 for any kind of private development. And now,
10 today, we're talking about allowing natural gas
11 drilling over the remaining land in the watershed
12 that is not publicly owned. Not only would this
13 be a major reversal to a longstanding policy that
14 New York State just reaffirmed two years ago, it
15 would mean that a repeal of New York City's
16 filtration avoidance determination by the EPA upon
17 its expiration would be a near certainty.

18 Building a water filtration facility of the kind
19 we would need to combat the damage done to the
20 water by hydraulic fracturing, would cost an
21 estimated \$10 to \$20 billion. I want to say that
22 again: \$10 to \$20 billion. On top of that, the
23 Rand Corporation has estimated an annual cost of
24 \$300 million for the maintenance and upkeep of
25

1
2 such a facility. When we add all these numbers
3 up, even the most optimistic, long term
4 projections for the amount of tax revenue
5 generated by hydraulic fracturing would pale in
6 comparison to the future cost that the City and
7 State should have to bear if a new water
8 filtration facility, must be constructed. With
9 all these factors in mind, I am making the
10 following calls to action. First, the DEC should
11 extend the comment period on the draft SGEIS from
12 60 days to 120 days, and they should say it now.
13 [applause] Second, I want to join with you,
14 Councilman, to urge every person at this hearing
15 to join us at the DEC's public hearing on November
16 10, 2009. And finally, I call on the good
17 Governor and the DEC to make an immediate
18 modification to the SGEIS and explicitly,
19 explicitly ban hydraulic fracturing in the
20 Catskill/Delaware Watershed. [cheers, applause]
21 The choice is simple: we either correct this
22 error and ban drilling now, or soon enough the
23 officials entrusted with protecting our water, our
24 environment, will be asked to explain why they
25 were asleep at the switch when it mattered the

1
2 most. I want to thank you again Council Member
3 Gennaro for the opportunity to testify on what I
4 believe is the most important environmental issue
5 this City has faced in the last decade. And I
6 look forward to working together with you and
7 members of the Council to kill the drill so there
8 will never be a spill. Thank you very much.

9 [cheers, applause]

10 CHAIRPERSON GENNARO: Well. Thank
11 you, Borough President Stringer, you've been a
12 real champion in trying to raise public
13 consciousness about this very important issue.
14 And we are really having an impact, I mean, you
15 saw what, you know, Chesapeake Energy did with
16 regard to withdrawing their application to take
17 water from the Delaware. You know, certainly the
18 kind of movement, the kind of, you know, zeitgeist
19 that we're, that we're generating here is, you
20 know, clearly having an impact. We've only just
21 begun. You know, your great efforts in turning
22 out people in your home borough of Manhattan are
23 really going to, you know, give the State
24 regulators something to, you know, think about
25 long and hard. When they, you know, have their

1 hearing here on November 10th, and they don't leave
2 the room until November 11th--

3
4 SCOTT STRINGER: [laughs]

5 CHAIRPERSON GENNARO: --which is,
6 which if Scott has anything to do with it, that's
7 exactly what's going to happen. So, thank you,
8 thank you Borough President Stringer for your--

9 SCOTT STRINGER: Thank you.

10 CHAIRPERSON GENNARO: --great
11 efforts on this, and we look forward to working
12 until we do just what you said here on the paper.

13 SCOTT STRINGER: Thank you.

14 CHAIRPERSON GENNARO: Okay, okay.

15 SCOTT STRINGER: Thank you very--

16 CHAIRPERSON GENNARO: Which was,
17 yeah, which was "Kill the drill so we don't have
18 to spill," it's a whole poem, a whole thing.

19 SCOTT STRINGER: "Kill the drill so
20 there's no spill."

21 CHAIRPERSON GENNARO: Right,
22 correct. I'm for that, I'm for that. [applause]
23 Thank you, Borough President Stringer. [break in
24 audio, pause] Okay, we're just doing a little
25 housekeeping up here. And we have the United

1 States Geological Survey in the house. And I
2 think it's appropriate that federal government is
3 represented. We bring them forward. And then we
4 have some brief statements that are going to be
5 put forward by some other City elected officials.
6 These will be brief statements, and then we'll go
7 on to the environmental panels, and other thing.
8 We'll try to move it along as quickly as possible.
9 But I would like to welcome John H. Williams of
10 the USGS. Which one is John? Okay, John, okay.
11 And being a geologist myself, I welcome you. You
12 know, geologist who, geologists, and perhaps we
13 could get together like over a binary phase
14 diagram and get that, you know, find the eutectic
15 point. You think we could do that? Okay. And
16 so, Mr. Williams, thank you for being here on
17 behalf of the USGS. I'll ask the Counsel to swear
18 in the panel, and then you can commence with your
19 good testimony.

21 COUNSEL TO THE COMMITTEE:

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

25 CHAIRPERSON GENNARO: Thank you.

1
2 If you could just make sure you microphone is on
3 and then state your name for the record. And you
4 have to make sure that the microphone is on, and
5 have it right by your mouth, just like mine is, so
6 everybody can hear you clearly. Right, try it
7 now.

8 JOHN WILLIAMS: Thank you. My
9 name's John Williams, a hydrologist with the U.S.
10 Geological Survey. And with me is Steve Wolcott,
11 also of the U.S. Geological Survey. The USGS
12 appreciates the opportunity to provide comments
13 here today. Gas development in the Marcellus,
14 Utica and other organic black red shales in New
15 York will involve horizontal drilling and high
16 volume hydraulic fracturing. The draft
17 Supplemental Generic Environmental Impact
18 Statement proposes many critical measures to help
19 minimize the impact of shale gas development on
20 the water resources of the State. However, a
21 number of these measures need to be more clearly
22 defined or require further evaluation. On site
23 burial of drill cuttings at shale gas development
24 sites, which is allowable under the draft, if oil
25 based drilling mud is not used, should be

1
2 carefully reconsidered. According to Lash
3 [phonetic] and - - of 2008, pyrite is abundant in
4 the high total organic carbon base intervals of
5 the Marcellus Shales. Oxidation and leaching of
6 pyritic shale produces an acidic, metals rich
7 discharge commonly referred to as AMD, or acid
8 mine drainage. A multi-horizontal well site will
9 generate 100 to 500 times the volume of acid mine
10 drainage producing pyritic shale cuttings, than
11 that would be generated at a single vertical well
12 site. If these pyritic shale drill cuttings are
13 left on site, attempts for future surface and
14 ground water contamination is significant.
15 Removal and disposal of all cuttings at an
16 approved landfill would be the preferred approach.
17 In the Marcellus Shale play area, freshwater
18 occurs in the fractured shale and sandstone of
19 Upper Devonian age. A review of gas exploration
20 well records suggests that freshwater circulates
21 in the fractured bedrocks to depths of nearly 800
22 feet below land surface. An assumed freshwater
23 aquifer depth of 850 feet as proposed in the
24 draft, appears reasonable for the Marcellus play
25 area; installation of surface casing and cementing

1
2 this casing to land surface to protect freshwater
3 aquifers at this depth is a sound approach. As
4 proposed in the draft, also cementing the
5 production casing to the land surface, will
6 provide needed additional protection, requiring
7 the collection of cement bond logs for each casing
8 strings will help detect any uncemented annular
9 spaces or gaps that may provide pathways for
10 saltwater and/or gas migration. Mill scale should
11 be sandblasted from casings to ensure good quality
12 cement bond logs. The draft indicates the surface
13 casing should not extend into zones known to
14 contain measurable quantities of shallow gas.
15 Shallow saltwater and gas have been penetrated in
16 the Upper Devonian bedrock above the Marcellus
17 Shale in some areas. It is not clear from the
18 draft how casing, cementing and venting
19 requirements will be modified to deal with these
20 conditions. Completion records for most gas
21 exploration wells provide little or no information
22 on aquifer conditions above the targeted gas
23 horizon. This lack of reporting results in a huge
24 loss of information that would be useful in
25 understanding and protecting the State's

1
2 groundwater resources. The draft does little
3 rectify the situation. Completion forms that
4 require recording of water quality and quantity
5 with depth, would be beneficial. Surface and
6 groundwater are a single resource. Upland
7 tributaries are particularly susceptible to
8 impacts with surface and groundwater withdrawals
9 under low flow conditions. Aquifer testing
10 procedures to evaluate impacts of groundwater
11 withdrawals for frack water supply in areas
12 outside the Susquehanna River basin are not
13 clearly defined in the draft. The past life flow
14 limitations of surface water withdrawal is based
15 on drainage area proposed in the draft, appear
16 reasonable as a first cut method; however, a more
17 rigorous method should be developed based on a
18 regional, systematic, low flow analysis with a
19 variable stream flow data. The cumulative impacts
20 of multiple withdrawals along the stream course is
21 not addressed. Nor is how will these withdrawals
22 be monitored, reported or regulated as they are in
23 the Susquehanna and Delaware River basin. The
24 flow back water from hydraulic fracturing, you get
25 about 20 percent of the water that you put down to

1 fracture the shale, comes back to the surface, has
2 been shown to contain elevated dissolved solids,
3 chlorides, barium, and other heavy metals, and
4 radio isotopes. Use of tanks rather than surface
5 impoundments for containment of all fracking
6 fluids, and the flow back water, will help to
7 minimize release of fracking fluids, chemicals and
8 flow back's contaminant at the site. The
9 treatment and ultimate disposal of the flow back
10 water continues to be an unresolved issue of
11 concern. Potential use of public water, waste
12 water treatment plants as a treatment option for
13 these fluids, needs to be thoroughly researched
14 before it's considered as an option. The natural
15 groundwater above the aquifers overlying the
16 Marcellus and Yucca play areas is highly
17 variables. Concentrations of contaminants such as
18 chlorides and radio isotopes vary by two orders of
19 magnitude in the water sampled from water wells.
20 The water quality sampling of private water wells
21 in the vicinity of gas exploration wells prior to
22 development of falling, drilling and hydraulic
23 fracturing is proposed in the draft. This water
24 well sampling program is in the best interests of
25

1
2 both the private well owners and the gas
3 development companies, and it is a good approach
4 to determine short term, site specific impacts on
5 the existing groundwater use sites. However, the
6 water well testing program does not address any
7 longer term, cumulative impacts to the groundwater
8 resources. Water quality sampling is considered
9 complete one year after the last well at a multi-
10 well site is drilled and fracked, if a problem is
11 not detected. Also, if there are no water wells
12 within a half mile of the drilling site, or if
13 permission to sample a well within this radius is
14 not granted, it appears that no groundwater
15 monitoring at all will be undertaken. A multiyear
16 program involving sampling of existing wells
17 and/or newly installed monitoring wells, would be
18 needed to detect potential impacts such as a
19 gradual regional increase of chlorides and methane
20 in the groundwater. Surface water quality
21 monitoring is not considered in the draft, other
22 than for storm water, but should be part of an
23 encompassing water resource monitoring program.
24 Thank you.

25 CHAIRPERSON GENNARO: Thank you,

1
2 thank you for being here. [applause] Will the
3 USGS be submitting formal comments to the State
4 during this period? I'm just curious as to
5 whether or not the, whether you'll be submitting
6 formal comments to the State, or whether you've
7 already, you know, made these views known to the
8 State.

9 JOHN WILLIAMS: We want to--

10 CHAIRPERSON GENNARO: Once again,
11 speak into the microphone.

12 JOHN WILLIAMS: Yes, we went to a
13 similar hearing just last Thursday at the State.

14 CHAIRPERSON GENNARO: Sweeney,
15 Sweeney, the Sweeney Hearing.

16 JOHN WILLIAMS: Yes, exactly.

17 CHAIRPERSON GENNARO: Okay.

18 JOHN WILLIAMS: And expressed these
19 concerns, and we will also be submitting a,
20 written comments. So--

21 CHAIRPERSON GENNARO: Terrific, I
22 think it's certainly good for that to happen, to
23 point out some of the, you know, very glaring
24 technical deficiencies that are in the DSGEIS.
25 And also--the amount of monitoring and, that would

1
2 have to go on to make sure that everything was, is
3 complied with, would be a, you know, monumental,
4 you know, regulatory task. Right? It's one thing
5 to set out these various standards, and even if
6 they were to make all of these corrections and
7 provide for the types of, for everything that you
8 put forward in this document, it would be a
9 herculean effort on the part of state regulators
10 to make sure that everyone did everything that's
11 outlined here. And so, the point that I guess
12 that I'm making to myself, is just the tenuous
13 nature how any of this could ever work within an
14 unfiltered water supply, with all of the rigorous
15 monitoring that would have to go on, everyone--And
16 it would have to be 100 percent foolproof and
17 nothing every is. And I'm just pleased that the
18 USGS is, you know, looking out for our water
19 quality by sinking in a lot of time to do this,
20 you know, comprehensive technical analysis of the
21 problems in the State and the City. Yes, and I
22 thank the USGS, generally, and thank you to you
23 specifically for the time that you put forward to
24 bring this very important piece of scholarship to
25 the table. And that we'll, and I'm grateful to

1
2 you submitting this to the state for their
3 consideration. Appreciate you being here very
4 much.

5 JOHN WILLIAMS: Thank you.

6 CHAIRPERSON GENNARO: Okay.

7 [applause] We have a representative of New York
8 State Senator Tom Dwayne, who was among the
9 earliest folks to get involved in this effort, who
10 stood with us on the steps of City Hall. And
11 we're happy that he's weighing in today with some
12 comments that will be read by Jerrod Chessow
13 [phonetic], I want to say the name--

14 JERROD CHESSOW: That was an
15 excellent pronunciation.

16 CHAIRPERSON GENNARO: Okay, see,
17 I'm, there you go. And--we're just going to have
18 you read the statement of the Senator, so no need
19 to swear you in, Jerrod, we'd be happy just to
20 hear you deliver the good statement of our friend
21 Tom Dwayne.

22 JERROD CHESSOW: Well, thank you,
23 Mr. Chair. And I think in the interest of time,
24 I'm going to skip over the Senator's deep concerns
25 about the possible impacts to the water supply,

1
2 because they largely echo what you've already
3 heard from the experts today.

4 CHAIRPERSON GENNARO: You're a
5 great American for doing that. [laughter]

6 JERROD CHESSOW: And I know there
7 are quite a few others who'd like to testify.

8 CHAIRPERSON GENNARO: Yeah.

9 JERROD CHESSOW: Again, thank you.
10 "My name is Thomas K. Dwayne, and I represent New
11 York State's 29th Senate District, in which more
12 than 300,000 residents and countless business
13 depend on clean and safe tap water. Thank you for
14 the opportunity to present testimony before the
15 Environment Protection Committee of the New York
16 City Council on the New York State Department of
17 Environmental Conservation's Draft Supplemental
18 Generic Environmental Impact Statement, on well
19 permit issuance for horizontal drilling of high
20 volume, hydraulic fracturing, to develop the
21 Marcellus Shale and other low permeability gas
22 reservoirs." That's a mouthful. Skipping ahead.
23 "I object to the DSGEIS's apparent hasty dismissal
24 of alternative actions concerning oil and gas
25 resource development in New York State.

1
2 Specifically, the DSGEIS deems phased permitting
3 not practical or necessary, citing DEC's inability
4 to predict the number of wells which will be
5 drilled, and its consequent inability to predict
6 regional cumulative impacts. Many natural
7 resources and environmental authorities suggest
8 DEC control for both of these unknowns, by
9 implementing an dynamic phased permitting plan
10 that accounts for unused permits and changing
11 cumulative impacts. They argue that initiative
12 drilling in the Marcellus Shale at a relatively
13 slow and steady rate, would serve to allay
14 concerns that DEC does not have the staff and
15 resources to properly review and permit, review
16 permit applications, inspect all sites and oversee
17 drilling operations. It would also enable DEC to
18 ensure that existing water, waster water treatment
19 facilities have sufficient capacity to receive and
20 process the enormous quantities of waster water
21 that will inevitably be produced by the industry.
22 I urge DEC to reconsider this alternative.
23 Lastly, I emphatically believe that the public
24 comment period for the DSGEIS is insufficient. An
25 803 page document analyzing what is arguably the

1
2 most significant encroachment of industry on our
3 natural environment, and threat to our public
4 health in decades, cannot be adequately digested
5 by the general public in only 60 days. [applause]
6 I join many of my colleagues in government and
7 environmental advocates in calling for another 45
8 to 60 days to review it. Many of my constituents
9 are deeply concerned about the impending gas
10 drilling, and they deserve an opportunity to fully
11 consider the issue and have their opinions heard.
12 I thank the Environmental Protection Committee of
13 the New York City Council, and in particular
14 Council Speaker Christine Quinn, and Chairperson
15 Gennaro for their leadership on this issue, and I
16 look for to continuing to work with you to ensure
17 that proposed drilling for natural gas in the
18 Marcellus Shale does not proceed without adequate
19 regulatory protections for our precious natural
20 resources." And I should specify, 'cause I
21 skipped over it, that includes a ban on drilling
22 in the watershed. Thank you.

23 CHAIRPERSON GENNARO: Thank you.

24 Thank you very much. [applause] And please give
25 our best to Senator Dwayne.

2 JERROD CHESSOW: Of course.

3 CHAIRPERSON GENNARO: It's always a
4 pleasure to meet with him. And also from the
5 State, we have a representative of Deborah Glick,
6 who's a member of the State Assembly, who also has
7 stood with us on various occasions, to speak out
8 on this issue. We have, looks like Molly Bidal
9 [phonetic].

10 MOLLY BIDAL: Correct.

11 CHAIRPERSON GENNARO: Okay. Who's
12 going to speak on behalf of Deborah Glick. And we
13 welcome her statement. Thank you so much for
14 being here.

15 MOLLY BIDAL: Thank you. Also, in
16 the interest of time, I think I'm going to
17 abbreviate a lot of what--

18 CHAIRPERSON GENNARO: Sure.

19 MOLLY BIDAL: --I was going to read
20 about the concerns about the environmental
21 concerns--

22 CHAIRPERSON GENNARO: Sure.

23 MOLLY BIDAL: --the large volumes
24 of water, toxic chemicals, I think we've heard
25 that all before, so I'll kind of skip to this.

1
2 "First, I greatly appreciate this opportunity to
3 testify on the issue of gas drilling in New York
4 State using horizontal drilling and hydraulic
5 fracturing. The draft's Supplement of the
6 Generic--SGEIS poses numerous concerns which I
7 would like to address. First, my first concern
8 regards the comment period itself. It is
9 imperative that the DEC extend the comment period
10 to 180 days to allow everyone sufficient time to
11 review the draft report and offer their feedback.
12 In particular, those who will be directly impacted
13 by the activities the DEC intends to permit,
14 deserve an opportunity to weigh in on the draft
15 SGEIS. While I was pleased to see that the DEC
16 has scheduled four information hearings/sessions,
17 it is essential that these be treated as full
18 public hearings. Furthermore, more hearings need
19 to be scheduled in additional locations that are
20 reasonably accessible, so that all those who would
21 like to speak out on this issue have an
22 opportunity to do so." Turning to the next page.
23 "So, while I applaud the DEC for requiring energy
24 operators to disclose all the chemicals used in
25 hydraulic fracturing, which is a requirement that

1
2 has been resisted elsewhere, it is unclear how
3 that disclosure will impact an approval or a
4 rejection of a requested permit. The DEC has
5 stated that it would ensure that wells permitted
6 within the watershed be subject to stringent
7 review standard. This is, this assurance is
8 meaningless in the event of groundwater
9 contamination or a surface spill of waste water
10 tainted with toxic fracking fluid. The DEC's
11 proposal to test private water wells within 1,000
12 or 2,000 feet of a drill site prior to drilling to
13 provide baseline information and allow for ongoing
14 monitoring cannot guarantee that water will not
15 become contaminated. While it can be argued that
16 drilling can be safe, if there are enough
17 safeguards, these safeguards have to be site
18 specific. However, drilling in a watershed is not
19 acceptable. Although the vast majority of wells
20 proceed without incident, even a one percent
21 accident rate would be a catastrophic problem for
22 drinking water because fracking fluids are so
23 toxic. The rate of accidents need only to be very
24 small to contaminate a water system or a water
25 source, whether it's for drinking water or

1 environmental activity. Once these pollutants are
2 in the water, they are very hard to get out.

3 Standard filtration systems do not remove them, and
4 standard industrial toxic waste treatments, which
5 have never been done on a scale like this before,
6 are highly expensive and not 100 percent reliable.

7 While a final decision to open up the Marcellus
8 Shale watershed to natural gas drilling has yet to
9 be made, the draft SGEIS seems to claim that

10 drilling in the watershed can be done with
11 adequate safeguards for the environment. Given

12 the evidence from other locations where fracking
13 has occurred, I am highly doubtful of this. New
14 York City has spent millions of dollars to

15 purchase land in the watershed area to act as a
16 buffer to protect the watershed from harmful
17 runoff or development that could damage our water
18 supply. The watershed area represents only eight

19 percent of the area that is believed to contain
20 Marcellus Shale. To put at risk the water supply

21 for nine million people, to potentially waste
22 taxpayer investment in buffer lands, and to expose

23 taxpayers to the further expense of filtration or
24 remediation in the event of unanticipated
25

1
2 contamination of the City's water supply, runs
3 counter to the premise of environmental
4 protection." Thank you.

5 CHAIRPERSON GENNARO: Thank you,
6 thank you very much. [applause] Please give our
7 best to Deborah, it was nice to see her a couple
8 of weeks ago at Central Park Reservoir, when she
9 stood with us, and on many occasions. Thank you.
10 Oh, and we're joined by Council Member Bill de
11 Blasio, a pleasure to have Bill with us here
12 today. And okay, so we heard from the federal
13 government, representatives of the State
14 government, and now we have a representative of
15 the Comptroller, Deputy Comptroller Marcia Van
16 Wagner is here. We're grateful that the
17 Comptroller is weighing on this critical issue,
18 we're happy to have Deputy Comptroller Van Wagner
19 here. We appreciate your presence here today.

20 MARCIA VAN WAGNER: Good afternoon,
21 Chairman Gennaro and members of the Committee on
22 Environmental Protection. I'm Marcia Van Wagner,
23 Deputy Comptroller for Budget, and I'm here
24 representing Comptroller William C. Thompson, Jr.,
25 at this hearing regarding the State Department of

1
2 Environmental Conservation's draft Supplemental
3 Generic Environmental Impact Statement, and the
4 proposed Council Resolution 1850 calling for a
5 prohibition on gas drilling in our City's
6 watershed. The New York City water system
7 provides about 1.2 billion gallons per day of
8 water to nine million people. Approximately 90
9 percent of this water arrives from the Catskill
10 and Delaware Watersheds in upstate New York, which
11 sit atop a section of the Marcellus Shale
12 Formation. The City, with the cooperation of the
13 State and local communities has already invested
14 hundreds of millions of dollars over the past
15 decades to protect the watersheds. In 2007, the
16 U.S. Environmental Protection Agency renewed the
17 City's filtration avoidance determination based on
18 the success that the City's efforts had achieved.
19 In the absence of the FAD, the City would need to
20 construct a filtration plant that could cost from
21 \$6 billion to \$10 billion, which would in turn
22 result in additional debt service expense of as
23 much as \$730 million per year. This increase in
24 debt service alone would require a 27 percent
25 increase in City water and sewer rates, even

1 before adding in the high cost of operating such a
2 facility. Comptroller Thompson is appalled that
3 the Department of Environmental Conservation's
4 Draft SGEIS would open access to the City's
5 watershed for hydraulic fracturing to extract
6 natural gas. Hydraulic fracturing is not
7 regulated under the Clean Water Act, and exposing
8 our water supply to the dangers of contamination
9 posed by this technology is highly irresponsible.
10 Comptroller Thompson expressed his concerns about
11 gas drilling in the watershed in 2008, in comment
12 submitted in the DSGEIS scoping process. Neither
13 the final scope nor the newly proposed SGEIS were
14 responsive to the fundamental concerns the
15 Comptroller and others raised. When the draft
16 SGEIS was released several weeks ago, the
17 Comptroller again stated his concerns and noted
18 that he had written to the Governor and DEC
19 emphasizing that the decision to drill so close to
20 our water supply must include the strictest
21 oversight to ensure that the millions of people
22 who rely on the region's water do not suffer ill
23 effects. It is not only drinking water that is at
24 risk. In Pennsylvania, where fracking has been
25

1
2 underway for some time, the State of Pennsylvania
3 has had to issue alerts at least three times in
4 the past year regarding the quality of water in
5 rivers into which waste water from natural gas
6 drilling has leached. The water has affected
7 aquatic life and is reported to have damaged
8 machinery, equipment and household appliances.
9 The existing water treatment plants in
10 Pennsylvania have not been able to handle the
11 volume and composition of the fracking fluid.
12 Similar if even more dire outcomes have been
13 recorded at fracking sites around the country.
14 The things that we know about fracking, that it
15 results in contaminated water supplies, invites
16 inevitable and devastating chemical spills, and
17 turns environmentally sensitive areas into
18 intensive industrial sites, must be paired with
19 the things that we do not know about fracking.
20 These include the undisclosed chemical compounds
21 used in the fracking process, and the long term
22 consequences of fracturing underground formations
23 and introducing chemicals into them. It is
24 important to note that while the SGEIS would
25 require some disclosure of additives used in the

1
2 fracking process, it is our understanding that it
3 would not require drillers to disclose the
4 specific chemicals used in those additives. For
5 these reasons, the Comptroller wholeheartedly
6 endorses Resolution 1850, and a ban on drilling
7 for natural gas within the boundaries of the
8 watershed of the New York City water supply. I
9 want to add that this testimony is on our website,
10 at comptroller.nyc.gov, and I want to thank you
11 very much for having us here today.

12 CHAIRPERSON GENNARO: Thank you.
13 Thank you for being here. [applause] Thank you.
14 Thank you, Deputy Comptroller Van Wagner, for this
15 very, very strong support and statement of the
16 water quality for the people of the City of New
17 York. Please give our best to the Comptroller and
18 thank you once again for doing this great work.
19 We appreciate it very much. And we'll move now to
20 our first environmental panel. [pause] Just
21 trying to make a decision as to whether or not we
22 move to like the dreaded clock, you know. Nobody
23 likes the clock, I don't like the clock. Maybe if
24 we're really lucky, and everyone, you know, tries
25 to keep it short, maybe we could avoid doing the

1
2 clock, which I don't like to do. But I do have, I
3 do have an obligation to get people on, though.
4 So, I mean, it's kind of that back, it's kind of
5 that balance. And, you know, where we avoid the
6 clock, I think, is for people--even though they're
7 passionate, not to reiterate a lot of things we've
8 already heard. And that way, we could move
9 through, people can give their specific, you know,
10 value added to this conversation that perhaps
11 other people haven't, you know, brought forward.
12 And maybe we can avoid the clock and get everybody
13 on. And so, let's try and see, and see how it
14 goes, shall we? 'Cause I don't like the clock,
15 but--so let's try it. So, we have the first, we
16 have a panel here, Dusty Horwitt of the
17 Environmental Working Group, who was here, who
18 came here from Washington. We're grateful to have
19 Dusty here. And Eric Goldstein from NRDC, and Jay
20 Simpson from River Keeper, will constitute the
21 first environmental panel. And Dusty we'll have
22 go first, 'cause you know, he has to catch a plane
23 or a train or some kind of conveyance back to
24 Washington. But made the trip up here just for us,
25 and we do certainly appreciate that. And if we

1
2 can get Eric and Jay situated, and we'll swear in
3 the panel quickly and move to the good stuff.

4 Thank you all for being here, it's been a pleasure
5 to work with all of you in this very important
6 subject matter. I could go on all day about the
7 great value added that you folks and the
8 organizations that you work for have brought to
9 the table, but we want to get it going, so we'll
10 do the, we'll swear in the panel and then Dusty
11 you can proceed with your testimony, followed by
12 Eric and Jay.

13 COUNSEL TO THE COMMITTEE:

14 Gentlemen, please raise your right hands. Do you
15 swear or affirm to tell the truth, the whole truth
16 and nothing but the truth today?

17 CHAIRPERSON GENNARO: Okay. Okay,
18 give me Dusty's testimony here. We got a copy of
19 it here? Okay. Okay, Dusty, please state your
20 name for the record, and--Oh, you're going to
21 distill this, right?

22 DUSTY HORWITT: Absolutely.

23 CHAIRPERSON GENNARO: Okay, great,
24 okay.

25 DUSTY HORWITT: Great, thank you.

2 CHAIRPERSON GENNARO: Okay.

3 DUSTY HORWITT: Thank you, Mr.

4 Chair--

5 CHAIRPERSON GENNARO: Sure.

6 DUSTY HORWITT: --for this
7 opportunity. We really appreciate your leadership
8 on this issue.

9 CHAIRPERSON GENNARO: Thank you for
10 coming all the way up here.

11 DUSTY HORWITT: Thank you. My
12 brother's getting married, so I have to make it
13 back to D.C. for the rehearsal, so--

14 CHAIRPERSON GENNARO: Mazel tov,
15 the second time that word has been used at this
16 hearing. Okay.

17 DUSTY HORWITT: So, if you don't
18 mind, I'll keep my comments very short and then I
19 shall have to excuses myself. Thank you.

20 Environmental Working Group is a nonprofit
21 research and advocacy organization based in
22 Washington, D.C., Oakland, California, and Ames,
23 Iowa. And for the last several years, we've
24 looked extensively at natural gas drilling and
25 hydraulic fracturing. We're concerned that the

1 State is still not taking seriously the risk of
2 contamination of New York City's water supply, and
3 water supplies throughout the State, when it comes
4 to natural gas drilling and hydraulic fracturing.
5 And we disagree with the State's contention that
6 natural gas drilling and hydraulic fracturing can
7 be done safely in New York City's drinking water
8 watershed. I just want to focus on a couple quick
9 points. We've analyzed much of the D.C. document,
10 and we found that we're particularly concerned
11 about the use of petroleum distillates. These are
12 any compound that's distilled from crude oil as a
13 petroleum distillate: diesel, gasoline, kerosene,
14 jet fuel; and they all tend to contain the - -
15 chemicals: benzene, toluene, ethyl benzene, and
16 xylene. We've looked at the document and there
17 are, based on the DEC's figures, there's going to
18 be maybe one to eight million gallons of water
19 used per well; they say about 0.8 percent, or .08
20 percent is going to be a friction reducer, which
21 is typically petroleum distillates. Based on
22 those figures, in many scenarios, the amount of
23 petroleum distillate used and the amount would
24 risk injecting so much benzene into water
25

1
2 supplies, that you would need more water to dilute
3 that petroleum distillate to a safe level than is
4 used by the entire City of New York in a single
5 day. In some scenarios, you need more water than
6 is used by the entire State of New York in a
7 single day to dilute the benzene used to a safe
8 level. The EPA has found that benzene is a known
9 human carcinogen, and it is toxic in water at
10 anything greater than five parts per billion. So,
11 a little bit of benzene goes a long way. And the
12 scientific literature shows that petroleum
13 distillates are full of benzene. We also are
14 still concerned about disclosure of these
15 chemicals, we want to make sure that any of the
16 chemicals that are used in natural gas drilling
17 and fracturing in the State are fully disclosed to
18 the public. In particular, we were concerned to
19 see that one of the companies supplying
20 information to the State about chemicals was
21 Weatherford. This is probably the most infamous
22 fracturing company in terms of disclosure of
23 chemicals. This is the same company that made a
24 chemical called Zeta Flow, which was spilled on a
25 natural gas fuel worker in Durango, Colorado. A

1 nurse named Kathy Bayer subsequently treated this
2 gas field worker, and then became extremely ill.
3 She suffered heart failure, respiratory failure
4 and liver failure, and as her doctor worked to save
5 her life, he called up the company, Weatherford,
6 and said, "You got to tell me what's in this
7 chemical," and they said, "Sorry, that's a trade
8 secret." So this is one of the companies named in
9 the EIS that has provided names of chemicals that
10 may be used in New York. So, we want to make sure
11 that, you know, all the chemicals are disclosed
12 and that no chemical is allowed to be used until
13 it's been proven safe, including first and
14 foremost, Zeta Flow. And I just want to wrap up
15 my comments and say again, that we're very
16 concerned about EIS and we continue to believe
17 that there should not be any drilling or fracking
18 inside New York city's Watershed, or in other
19 areas where drinking water supplies may be at
20 risk.
21

22 CHAIRPERSON GENNARO: Thank you.

23 DUSTY HORWITT: Thank you.

24 CHAIRPERSON GENNARO: Thank you.

25 Thank you, Mr. Horwitt. [applause] And Eric

2 Goldstein--

3 ERIC GOLDSTEIN: Thank you, Mr.
4 Chairman.

5 CHAIRPERSON GENNARO: I just can't
6 even begin to say how many things we've worked on,
7 and how grateful I am for everything that you've
8 done and, you know, continue to, you know, to
9 bring to the table. So, thank you. So--

10 ERIC GOLDSTEIN: Thank you, Mr.
11 Chairman, and thanks for your indispensable
12 leadership on this issue, and for these hearings.
13 We have a short statement that Kate, Cindy and I
14 prepared, that I'd like to summarize briefly
15 today. Every five or ten years, a government
16 proposal comes down the pike that is so ill-
17 advised and so contrary and in conflict to the
18 long term best interests of the City's residents
19 and the State residents, that you have to ask
20 yourself, "What could these officials who are
21 proposing this plan possibly be thinking?" And
22 such is the case with respect to the proposal to
23 advance industrial gas drilling in New York City's
24 Catskill and Delaware Watershed. Of course, NRDC
25 recognizes the potential benefits of natural gas a

1 transition fuel in the national effort to decrease
2 American's reliance on coal and oil, but we also
3 know that gas drilling in New York, especially
4 drilling that utilizes environmentally worrisome
5 techniques, like hydraulic fracturing, must be
6 accompanied by the most stringent environmental
7 safeguards, by careful oversight, by vigorous
8 enforcement, and we know that there are some areas
9 of the State, including the City's watershed and
10 other lands that serve as the sources of primary
11 drinking water supplies, that should simply be
12 placed off limits to industrial gas drilling
13 because of the inherent risks of that activity,
14 and the fundamental long term responsibility of
15 government to protect the public's drinking water
16 supplies. Three quick points: One, New York
17 City's watershed is simply too sensitive and too
18 valuable a resource to the people of this City and
19 this State to take the risk of allowing industrial
20 gas drilling within the watershed boundaries.
21 It's one of only five unfiltered systems in the
22 United States, as you know. As you've heard
23 today, \$10 billion would be the cost if we need to
24 filter it. What you haven't heard today is that
25

1
2 conventional filtration equipment is designed to
3 deal with biological wastes, and would unlikely to
4 be able to capture the fracking fluid and to treat
5 the other toxic chemicals that would be produced
6 by this process. So not only would New York be
7 likely to order, that we would need to be build a
8 filtration plant, to satisfy Safe Drinking Water
9 Act requirements, but we would likely have to add
10 additional equipment, the kind of equipment that
11 is being added at very high costs to the old
12 Jamaica water supply in Queens, to deal with an
13 attempt to treat the toxic chemicals that could
14 end up in our reservoirs if this proposal
15 advances, and if hundreds perhaps thousands of
16 wells are scattered throughout the upstate
17 watershed area. You've heard about the
18 experiences in other jurisdictions, we won't go
19 into it now, other than to say that it does not
20 give us great comfort to see what's been happening
21 in other states with this technology. So we
22 support an absolute ban on industrial gas drilling
23 within the watershed boundaries. Second, even
24 from a very preliminary analysis of the 800 plus
25 pages that are contained the draft EIS, it's clear

1 that this EIS is deficient and critically flawed.

2 Let me give you just one or two quick examples.

3 The draft fails to evaluate the potential

4 cumulative impacts of gas drilling throughout the

5 Marcellus Shale, claiming in effect that it's too

6 difficult to estimate the rate at which drilling

7 will proceed on a regional basis. Well, if you

8 can't even estimate how much drilling is going to

9 take place, how could you possibly calculate what

10 the potential environmental impacts would be?

11 Second, the draft fails to evaluate any meaningful

12 alternative to the proposed drilling plans that

13 are discussed in this EIS. Again, a critical

14 failing of an EIS, the cornerstone of which is to

15 look at less environmentally harmful alternatives.

16 And third, the draft fails to adequately analyze

17 the wide ranging adverse environment economic

18 impacts that could result both from in the

19 proposed drilling areas and in the City, looking

20 at potential land use changes, ancillary

21 industrial development and potential pollution

22 incidents. Those economic analyses are also

23 deficient. Finally, what's clear from even a

24 cursory review of this document is that the

1
2 comment deadline is wholly inadequate, given more
3 than the 800 pages of technical material that have
4 been released. Where's the fire? What's the
5 hurry? The State should take the time to do a
6 thorough review and get it right the first time.
7 And we are requesting of the State in the
8 strongest possible language, that it extend the
9 common period another 60 days at least, until
10 January 30th 2010. Sure, DEP is requesting only 45
11 days, they've spent tens of thousands of dollars
12 and they already have a staff of 25 people looking
13 at it. Well, guess what? The public doesn't have
14 that staff and those resources and we need the
15 time to analyze this study. [applause] In sum,
16 we urge you to pass your resolution and to use
17 your good offices to secure a 60 day extension of
18 the time. Finally, we urge everyone who's here
19 today to make sure that they show up on November
20 10th, Stuyvesant High School, 6:00 p.m., for the
21 first State hearing on this issue. One last
22 point, we were pleased by a lot of what we heard
23 from DEP today, and we're encouraged by that. But
24 one important area where we think the Commissioner
25 either misunderstood the question or misstated the

1
2 law is this: We believe the City has authority
3 under current state law to prevent pollution
4 discharges and pollution generating activities
5 within watershed boundaries. Period. And
6 therefore, the City could take administrative
7 action to prohibit conduct in the watershed that
8 would generate pollution that would threaten our
9 drinking water supply. We do, however, agree with
10 the Commissioner that the responsibility in the
11 first instance of protecting the water resources
12 for half the State lies with the State. Their
13 obligation is in this DEIS process to protect the
14 drinking water for the downstate New Yorkers; and
15 for that matter, to protect the other drinking
16 water supplies for people throughout the State.
17 We thank you again for your leadership, you were
18 here at the very beginning on this issue, we know
19 you'll be here at the end when we save our water
20 supply. [applause]

21 CHAIRPERSON GENNARO: Thank you.

22 Jay?

23 JAY SIMPSON: Councilman Gennaro,
24 thank you.

25 CHAIRPERSON GENNARO: I got to get

1
2 your statement, Jay, here we go.

3 JAY SIMPSON: Oh, sure.

4 CHAIRPERSON GENNARO: I got it,
5 yeah.

6 JAY SIMPSON: I, too, will be brief
7 and abbreviate my written testimony. First, I
8 would like to, like Eric said, thank you for your
9 leadership, your ongoing and continued leadership,
10 on this matter and other important environmental
11 issues. We certainly look forward to fighting
12 thing battle with you, as well as future battles
13 that may come down the pike. I'm going to direct
14 my comments really to the draft EIS, that was, the
15 draft Supplemental EIS, that was released on
16 September 30th. We're still reviewing the details
17 of this 805 page document. But our initial review
18 shows that there are fundamental problems with it.
19 In general, this is a pro-gas drilling document.
20 It is evident that the DEC's Division of Mineral
21 Resources wants nothing more to issue drilling
22 permits as soon as possible. Riverkeeper and its
23 experts are reviewing the details of this document
24 and will provide extensive comments before the
25 comment deadline. That said, I have six specific

1
2 points at this time. Number one, as many have
3 said this morning, there is an insufficient time
4 for public comment. A mere 60 days, which
5 includes the Thanksgiving weekend, is a woefully
6 inadequate timeframe for the public to digest and
7 comment upon this 805 page document. That amounts
8 to over 13 pages a day, seven days a week. The
9 draft EIS states that in 1992, when DEC issued its
10 original generic statement, that was the
11 culmination of a twelve year effort. If the 1992
12 EIS took twelve years, why is the State only
13 giving the public 60 days to review this document?
14 As Eric said, what's the rush? The gas is not
15 going anywhere. Number two, there are no new
16 regulations proposed. Even though this draft EIS
17 is a supplemental analysis of DEC's regulatory
18 program, there are a grand total of zero new
19 regulations proposed in this draft EIS. DEC's
20 existing regulatory structure was adopted over two
21 decades ago. Moreover, the very reason for this
22 supplemental draft EIS is the new technology,
23 using substantial amounts of water and chemicals,
24 and proposed drilling in areas like the New York
25 City Watershed, that have no prior history of gas

1 drilling. So rather than propose any new
2 regulations to govern this new type of drilling,
3 in areas with no prior history, DEC simply wants
4 to address all of the impacts through its existing
5 permitting procedures. DEC should go back to the
6 drawing board and propose statewide regulations,
7 incorporating best management practices to
8 regulate this activity. Number three, DEC should
9 ban drilling within the New York City Watershed
10 and other service drinking water supplies
11 throughout the State. Rather than propose any
12 real mitigation measures, the draft EIS says that
13 the existing regulations, such as the City's
14 watershed rules and regulations, provide enough
15 protection for the New York City Watershed. The
16 City's regulations, however, do not regulate gas
17 drilling. Gas drilling was not contemplated, this
18 is a new activity. The draft EIS's treatment of
19 the New York City Watershed is completely
20 unacceptable. Number four, and as we heard the
21 DEP discuss, there is a lack of protection for the
22 New York City water supply infrastructure: our
23 fragile aqueducts and tunnels. As the Council, as
24 the Committee well knows, the Delaware aqueduct is
25

1
2 fragile, it leaks substantially. Having this
3 drilling activity anywhere near it could
4 exacerbate that terrible problem. The draft EIS
5 claims that fracturing zones are thousands of feet
6 deeper than any tunnel or aqueduct. This is a
7 false statement. DEP's recent rapid impact
8 assessment report found that one, portions of the
9 Catskill Aqueduct and the Delaware Aqueduct are in
10 direct contact with the Marcellus Formation. And
11 two, that two reservoirs and substantial portions
12 of the aqueducts and tunnels are as close as 500
13 vertical feet from the Marcellus Formation. So,
14 rather than propose any new rules to deal with
15 this new procedure that is this close to the
16 Marcellus, the draft EIS proposes to continue
17 existing protocols between DEC and DEP, regarding
18 drilling near aqueducts and tunnels. This is
19 unacceptable, and fails to account for this new
20 drilling technology. Point number five, there is
21 a lack of clarity on fracking chemicals. In
22 chapter five, the draft EIS lists many fracking
23 product names, and separately constituent
24 chemicals used in those products. However, DEC
25 does not link the constituent chemicals to product

1 names, because it has deemed the product
2 compositions and formulas to be trade secrets, and
3 therefore exempt from public disclosure. What is
4 lacking is any analysis of the environmental
5 impact of these chemicals to, say, drinking water.
6 We are still studying this issue, but are deeply
7 concerned with what we have learned so far.
8 Number six, there is a failure to study the
9 cumulative impacts of industrial gas drilling.
10 The draft EIS contains no real analysis of the
11 cumulative impacts associated with industrial gas
12 drilling. Lawyers and policymakers refer to this
13 concept as the tragedy of the commons. It is
14 also known as death by a thousand cuts. So rather
15 than analyze each well individually, as DEC does
16 in the draft EIS, DEC must study the cumulative
17 impacts from hundreds or thousands of wells
18 throughout the New York City Watershed, the
19 Catskills and beyond. In conclusion, I would just
20 like to say that New York City is the trustee for
21 the New York City water supply. This unfiltered
22 supply is the State's greatest natural resource
23 and perhaps the City's greatest capital asset. As
24 the trustee, the City has the duty to protect the
25

2 water supply not just for this generation, but for
3 our children and our children's children.

4 Riverkeeper supports Councilman Gennaro's
5 Resolution and urges the full Council to pass it
6 immediately. I thank the Council again for the
7 time and the attention to this important matter.

8 CHAIRPERSON GENNARO: Thank you.

9 [applause] Thank you. I would like to ask you
10 something that I mentioned to Steve Lawitts before
11 about the, whether or not it would make any sense
12 to try to figure out how to get EPA once again to
13 take over primacy for the filtration avoidance
14 determination. Does that make any sense to you,
15 to try to do that? Is that tactically a smart
16 thing, or could it get us some more common sense
17 in this process? Because it seems that the State
18 Department of Health is not responding
19 appropriately to, you know, DEP's reasonable
20 request that they do a certain kind of study. And
21 basically do their job as the chief protector of
22 the City's, of the whole State's drinking water
23 quality. What do you think of that? Hot topic,
24 right, you know, I--

25 JAY SIMPSON: In the first

1
2 instance, it's the responsibility of the State
3 Health Department to engage in this process. They
4 shouldn't be let off the hook. We also have
5 encouraged, and will continue to encourage, EPA at
6 the regional level to engage in this. Our hope
7 and expectation is that they will review and
8 comment on the draft EIS. Ultimately, if the
9 State is unable to perform its duties, one thing
10 to seriously consider is asking EPA to take back
11 primacy. That's a drastic step. Our hope is that
12 EPA will engage fully in the process and that the
13 State Health Department will show leadership and
14 be given a role in this process. So far, that
15 hasn't happened, but we can't give up the fight
16 yet.

17 CHAIRPERSON GENNARO: Right. Well,
18 I'm just trying to--I want to comprehend your
19 response, that right now, there is no formal role
20 for the State Health Department in this EIS
21 process.

22 JAY SIMPSON: I'm sorry to
23 interrupt, although they have been commenting
24 internally and sharing some thoughts, is our
25 understanding with the State. What I think we all

2 need to do now is encourage a more formal role. I
3 believe you and others--

4 CHAIRPERSON GENNARO: For the State
5 DOH--

6 JAY SIMPSON: Exactly.

7 CHAIRPERSON GENNARO: --in this.

8 And would that be by way of supporting the DEP in
9 its request of the State to do whatever study that
10 they were talking about? And some other sort of
11 formal role or--And then to see how that goes.

12 And if they don't step up, then we go to EPA and
13 say, "What are these guys doing?" Right? And
14 what would be the entity that would like make the
15 request of EPA to reassert primacy? Like what
16 kind of entity would do something like that?

17 JAY SIMPSON: Well, it could be a
18 variety of public agencies. You know, groups like
19 Riverkeeper and the NRDC are certainly valuable,
20 viable candidates to make that request.

21 CHAIRPERSON GENNARO: Right.

22 JAY SIMPSON: And the New York City
23 Council.

24 CHAIRPERSON GENNARO: Sure, right.

25 JAY SIMPSON: The public, in

2 general.

3 CHAIRPERSON GENNARO: We can do
4 whatever we want, you know.

5 JAY SIMPSON: But, as Eric said, we
6 need, you know, we're still early in this process.
7 We need to wait and see what DOH says. It's out
8 understanding, as well, that they have been
9 working behind the scenes. And I believe they
10 played a minor role in crafting this document, or
11 at least provided some input. Whether that input
12 was taken, is an open question.

13 CHAIRPERSON GENNARO: Right.

14 JAY SIMPSON: But I think we do
15 need to wait and see, and to give DOH the benefit
16 of the doubt. They are the primacy, they do have
17 primacy over the FAD. It's our hope and our
18 expectation that they will live up to the
19 obligations of an agency that has primacy. If
20 they, if they don't, that's a question for a
21 different day.

22 CHAIRPERSON GENNARO: Okay. Okay,
23 fair enough, fair enough. I want to thank you
24 both for being here today. We are very grateful
25 for all that your organizations have done. I very

1
2 much look forward to working with you as to--
3 [sneeze in audience] god bless you--to get the
4 watershed protected and to keep fracking out of
5 the watershed, and protect drinking water supplies
6 throughout the State.

7 JAY SIMPSON: Mr. Chairman--

8 CHAIRPERSON GENNARO: Thanks.

9 JAY SIMPSON: We appreciate your
10 work and that of your staff, too.

11 CHAIRPERSON GENNARO: You bet.

12 Thank you, thanks very much. [applause] What's
13 that? [pause] Okay, we're going to call the next
14 panel, and then we're going to also, what we're
15 going to do now is we're going to notify like the
16 panel after that, so they could know that they're
17 on deck. So, this is, I guess for lack of a
18 better way to characterize, these are the
19 Westchester folks, who've always been very active
20 on, you know, issues relating to the watershed,
21 we're grateful to have them here today. My very
22 good personal friend, Steve Levy, of the Federated
23 Conservationists of Westchester County; Fay Muir
24 of the Croton Watershed Clean Water Coalition;
25 Marian Rose, I've know for many, many years, also

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25

of the CWCWC, which is the Croton Watershed Clean Water Coalition; and Dr. Mirelle Goldsmith, also of the CWCWC. To be followed by Kathleen Breen, of NYPIRG, another good friend; Deborah Goldberg, also no stranger to this Committee, from Earth Justice; Ken Baer from the Sierra Club, great guy; and Annie Wilson from the Sierra Club, also. So, that's the panel that'll come on after the Westchester panel. And I see that we have Steve and Rose and Faye. Is Dr. Goldsmith here? Okay.

FEMALE VOICE: He had to leave, yes.

CHAIRPERSON GENNARO: Okay.

MALE VOICE: More time for us, though.

CHAIRPERSON GENNARO: I [laughs] happy to have you with us here today, as always. I'll ask Counsel to the Committee to swear in the panel, then you can proceed.

COUNSEL TO THE COMMITTEE: Please raise your right hands. Do you swear or affirm to tell the truth, the whole truth and nothing but the truth today?

FEMALE VOICE: I do.

2 CHAIRPERSON GENNARO: Okay. Steve,
3 please. Pleasure to have you, and just make sure
4 your microphone is on and that you're talking
5 directly into it.

6 STEVE LEVY: Thank you.

7 CHAIRPERSON GENNARO: Okay.

8 STEVE LEVY: First of all, you
9 know, it's nice to see such a big group on water
10 quality. We don't normally obtain such a big
11 group for air quality. So I'm going to spend more
12 time with these people, 'cause--

13 CHAIRPERSON GENNARO: Right

14 [laughs]

15 STEVE LEVY: --they're very active.
16 First of all, on behalf of our residents of the
17 Westchester County, we also thank you and applaud
18 you for your decade of environmental stewardship,
19 as well as being ahead of the curve for the
20 drilling at Marcellus Shale the last year-and-a-
21 half.

22 CHAIRPERSON GENNARO: Sure, sure,
23 I'm just going to--just ask people to keep the
24 conversations down.

25 SERGEANT-AT-ARMS: - - outside

1
2 please.

3 CHAIRPERSON GENNARO: And if we
4 could, people that want to talk, if they can do so
5 outside, that'll be good. Sorry for the
6 interruption, Steve, please continue.

7 STEVE LEVY: I really have, I have
8 two messages today, I'm going to let Marian Rose
9 give the technical message. But the two messages
10 I have today is that the State, which is new to
11 the hearing, of information today, the State is
12 going to move or being proactive to move to a low
13 carbon fuel standard, as is the City of New York.
14 And begin drilling throughout the State, let alone
15 in the Marcellus Shale, would obviously neutralize
16 that, which will increase, you know, our carbon
17 footprint, as well. Not just with deforestation
18 but also with, you know, increased air emissions
19 and pollution and so on. So that's another area
20 perhaps to take a look at. In my other times of
21 giving testimony here over the last decade-and-a-
22 half or so, I've always tried to be business
23 minded and be a level head, as most of the time I
24 am. But today, I'm angry. I've been, it's been
25 leading up. Other than Borough President Stryker

1 [phonetic] has said that, you know, he was
2 shocked, I'm not a politician, I could probably
3 use some other choice words other than being
4 shocked for people of the State of New York would
5 even think about, that I look at as our watershed
6 system, as our holy grail, as a synagogue or as
7 church, or a temple. So for anyone just to think
8 about that we'd jeopardize our water system is
9 appalling to me, as you see, in my statement. I
10 represent the Federated Conservationists of
11 Westchester County today. It's a group of dozens
12 of environmental nonprofits and other sustainable
13 organizations in Westchester, being living in
14 Westchester as well. And this is also, you know,
15 provided me, you know, as I got involved in the
16 beginning with Clean Air and so on, you know, a
17 decade or so ago. But as many of us in this room
18 know that the lady to the left of me has been
19 dealing with the watershed for a long time. We
20 won't say how many years. And if there is someone
21 that is an expert, you know, I will defer to the
22 expert for Marian Rose.

24 CHAIRPERSON GENNARO: Well, thank
25 you, Steve, and I appreciate all of your

1
2 environmental efforts, particularly those that
3 involve clean fuels and making our air cleaner,
4 you've been a real pioneer in that. And it's, you
5 know, great to see you advocating on behalf of
6 clean water, as well, and thank you for your
7 gracious intro to someone we all know, Marian
8 Rose. Marian Rose who I'm grateful is here today
9 and been working on watershed issues for the last
10 19 years, and I think Marian may be the only one
11 in the room who's been working on these issues
12 longer than I. And I thank you for being here.
13 And I look forward to good value added that you
14 bring to our discussion today. So, Marian,
15 please.

16 MARIAN ROSE: Well, thank you very
17 much, Mr. Chairman. Your leadership in this vital
18 issue I would say probably the most important
19 issue that has faced this area, that has faced New
20 York City. I cannot imagine anything more
21 important than the source of drinking water for
22 nine million people. And thank you so much for
23 your leadership in trying to oppose the drilling.
24 Needless to say, we are adamantly opposed to any
25 drilling in the watershed. I don't want to go

1
2 over what's been said before, I'll try and be
3 brief and I'll try and add a few points that maybe
4 have not been talked about. First of all, the
5 cost of drilling and having to build a filtration
6 plant, based on the Croton, which is now being,
7 where the plant is now being built, the filtration
8 originally estimated at \$800 million, it's now up
9 to about \$3 billion. The cost overruns are
10 enormous and seeing that the Catskill/Delaware
11 provides ten times the amount of water the Croton,
12 and is now estimated at \$10 billion cost, this
13 overrun and inflation together could easily bring
14 it up to \$20 or \$30 billion, that would be placed
15 on the backs of the rate payers in New York City,
16 in order to make money for the drilling companies.
17 The Governor of course is faced with very hard
18 economic times, and he's looking for any source of
19 income that he can possibly lay hands on, and one
20 of them of course is natural gas drilling in the
21 Marcellus Shale. He hopes to get about a billion
22 dollars from that. I must say, compared to the
23 \$20 or \$30 billion it's going to cost to build the
24 plant, that's not very good economics. The
25 Governor's trying to streamline the process, he's

1 issued order, executive order number 25, to make,
2 seek for more developer friendly, and also to
3 reduce the paperwork and the number of people
4 employed by DEC. We see this as a lethal
5 combination of lack of supervision, 'cause there
6 will not be enough personnel to supervise what's
7 going on in the watershed; plus the lack of
8 supervision, plus as many people have pointed out,
9 human error. Human error and lack of supervision,
10 that's a lethal combination. You can be sure
11 something's going to go wrong, and it doesn't take
12 very much to poison our water. And as a result of
13 that, EPA will withdraw the FAD. I'd like to
14 point out that according to SECRA [phonetic], this
15 is part 61712(b) under part number five, three and
16 five, it says that sufficient copies of all the
17 notices in relation to a project have to be
18 readily available to the public. And if not, and
19 now I'm just quoting from SECRA, if sufficient
20 copies of the EIS are not available to meet the
21 public interest, the lead agency must provide an
22 additional copy of the documents to the local
23 library. This has not been done. There are
24 libraries that still do not have a copy of the
25

1
2 EIS. And people who want to read it for whatever
3 reason, maybe they don't have a computer that's
4 capable of handling a thousand pages or whatever,
5 these people are not able to have access to the
6 information. Therefore, we are saying that the
7 clock should not start until all the information
8 is available to the public. And for that reason,
9 we are asking for an extension to January 31,
10 2010, before the written comments have to be in.
11 Another point is hiding in the shadow of this DES
12 GEIS, is the draft New York State energy plan,
13 which also calls for natural gas drilling in the
14 Marcellus Shale. We have testified against that
15 at a public hearing at Hunter College last August.
16 I'd like to say a few words now about the
17 fracking. A lot have said about fracking and I
18 don't want to add very much. The DEC seems to
19 claim that one to two percent of chemicals in the
20 water is not very much. That's, if I may say so,
21 nonsense. Just a few parts per million in the
22 water can be very serious, have very serious
23 health effects. And as somebody pointed out, one
24 of the speakers pointed out, petroleum distillates
25 in the water, and in much higher amounts than one

1
2 or two percent. There are also concerns about how
3 the drilling is done. Before it starts, very
4 often what happens is they bring in the thumper
5 trucks, the thumper trucks then set off
6 detonations--and they--the thumper trucks set off
7 detonations to see what lies beneath. And these
8 detonations can be up to 100,000 pounds, foot
9 pounds, very, very energetic detonations, that can
10 really change the fractures that are underground.
11 In addition to which, the injecting the water
12 under very, very high pressure, will also change
13 the fractures through which the gas can seep up to
14 the cop. What happens is the flow back water
15 which contains the chemicals, about 40 percent of
16 that comes back, plus product water, stirs the
17 waters that lie within the shale already, that
18 have a high percentage of brine, they can have
19 radioactive materials, and all this stuff can
20 start to seep up to the aquifers that lie above,
21 through these fractures that have been created.
22 Now, what happens when this material gets into the
23 aquifers, the aquifers nourish the streams, 60
24 percent of stream flow comes from the aquifers.
25 And so this hazardous materials seeps back into

1
2 the streams that feed the reservoirs from which we
3 get our drinking water. So, this drinking water
4 can have the brine, it can have the radioactive
5 material, it can have any number of things that
6 lie deep underground 6,000 feet. They have to--

7 CHAIRPERSON GENNARO: If you could
8 possibly start to--

9 MARIAN ROSE: --the nine million
10 gallons--I'm sorry?

11 CHAIRPERSON GENNARO: If you could
12 start to summarize, if that'd be possible, Marian,
13 if you could start to summarize your comments,
14 that'd be super.

15 MARIAN ROSE: Yeah, okay. I'd just
16 like to say that it's, that it's very possible for
17 local wells to be contaminated, and so far it's
18 been very difficult for any well owner to prove
19 that their well has been contaminated. We suggest
20 that every well within the area be tested before
21 any fracking takes place, so that they know
22 exactly what's in the well, and then the burden of
23 proof that these wells have not been contaminated
24 should be on the drilling company. And I'll now
25 hand over to my president.

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25

CHAIRPERSON GENNARO: Thank you.

Thank you, Marian, always a pleasure, to have you here. And Fay Muir.

FAY MUIR: Yes, good afternoon.

CHAIRPERSON GENNARO: Thank you, Fay, for being here.

FAY MUIR: I, yes [laughs] my name is Fay Muir. And just a point of clarification, you mentioned that we're talking to the Westchester groups. Well, the Croton Watershed Clean Water Coalition has 54 groups, and most of them are within the City limits. So I just wanted to clarify that myself, I'm from The Bronx. So [laughs]

CHAIRPERSON GENNARO: I stand corrected.

FAY MUIR: Okay. [laughs]

CHAIRPERSON GENNARO: I stand corrected.

FAY MUIR: Alright. And I have truncated, you know, everything that I could. I just like to say a few more things about the fracking chemicals. The Endocrine Disruption Exchange identifies 435 products composed of over

1
2 340 individual chemical components used in
3 fracking. And of course, they're trade secrets.
4 In particular, they do not reveal how these
5 various chemicals are combined to make products
6 that are used in the fracking. And we liken this
7 to being told that carbon, nitrogen, oxygen and
8 hydrogen are harmless, and not being told that if
9 combined in the correct proportions and
10 configurations, they can produce TNT. The
11 drilling companies have not been forthcoming
12 informing the public as to what is being injected
13 in the aquifers. Although, CWC hopes that the
14 permits will never be issued in the New York City
15 Watershed, but should an event occur, no permit
16 should be allowed until the drilling companies
17 provide full, complete lists of all the components
18 and combination they use in their drilling
19 activities; to do otherwise would be a dereliction
20 of New York State's duty to protect the public
21 health and safety. Now, concerning the storage of
22 the hazardous wastes. After they're injected, the
23 chemical laden water, then the upsurge of gas
24 brings a random amount of this mixture to the
25 surface. This flow back water laden with

1
2 contaminants such as cobalt, chromium, salts,
3 leads, this material has naturally occurring
4 radioactive material. And that results in lung
5 cancer and bone cancer. It's stored in open pits,
6 and is transported to sewage treatment plants,
7 which will likely not be able to deal thoroughly
8 with it, resulting in not only the effluent from
9 the fracking, but also sewage waste that the
10 treatment plant was originally designed for, to
11 contaminate. According to the Endocrine Exchange,
12 the overall waste management failures were
13 responsible for the majority of the documented
14 water contamination incidents. And also,
15 transportation. Okay. With the three million
16 gallons of water per well, up to five million,
17 that will have to be transported. They have to be
18 sucked out of the ground and transported, and then
19 the wastes are transported. That could mean 600
20 trips of 9,000 gallon trucks. And of course
21 inevitably there will be accidents. And of
22 course, the actual laying of those gas drilling
23 wells takes anywhere up to one square mile of
24 mostly forested land. That's the first problem.
25 Second, the roads cut through the forests, that

1
2 has to haul the heavy equipment. They talked
3 about fragmenting and destroying the forests, of
4 course, and what that means. In addition, the
5 transmission pipelines, they could be above ground
6 but they could also be up to six feet underground.
7 And constructing the pipelines also creates
8 disturbance that can severely impact streams,
9 wetlands and wildlife. And the fourth problem is
10 the compressor stations, or the refineries. They
11 require additional chemicals, and they create
12 liquid wastes as well. And that could improperly
13 be attended to, and also cause contamination. And
14 then, Marian had mentioned the seismic testing.
15 That is the thumper trucks. They detonate
16 explosive, and they form energy waves, and
17 whatever waves are taken, they could generate up
18 to 100,000 pounds per foot of pressure. And of
19 course earthquakes could form, weaken the fissures
20 that are already there, and release the deep toxic
21 layer of water that they have been injecting into
22 the ground water. Conclusion, we would like to
23 reiterate that the Catskill/Delaware Watershed is
24 a unique area, which supplies high quality water
25 with a minimum of treatment to over nine million

1
2 people. And unlike areas that are less sensitive
3 because they do not have those comparable water
4 resources, the impacts that would pose a threat to
5 this hard won filtration avoidance determination,
6 would be unacceptable and a financial burden that
7 New York City residents couldn't possibly deal
8 with. The New York City Watershed not only
9 supplies superb water, they also supply some of
10 the most beautiful landscapes. And that graces
11 the Hudson River Valley with its mountains and
12 rivers, which we're all familiar with, it's
13 nothing like it. And if contamination should
14 occur, no one knows for how long it may last, and
15 whether or not it could be remediated, let alone
16 what illnesses could result. And the wildlife and
17 the view shared [phonetic], all that would be
18 lost. Potential astronomical cost aside, how
19 could we ever replace this excellent and world
20 renowned water? If we can't use the reservoir
21 system, what will we use for water?

22 CHAIRPERSON GENNARO: Thank you.

23 Thank you, Fay. [applause] Thank you, thank you,
24 thank you, Marian, thank you, Steve, for your
25 great testimony, see you on November 10th. And if

1 not before, and we appreciate very much your being
2 here today. And as we call, as we said before,
3 our next panel, Kathleen Breen from NYPIRG,
4 Deborah Goldberg from Earth Justice, Ken Baer from
5 the Sierra Club, Annie Wilson also from the Sierra
6 Club. And then the panel that will follow this
7 panel, Joel Levine from NYH2O, from the Real
8 NYH2O--little joke there. Okay, from the
9 authentic NYH2O. Michael Lebron from New Yorkers
10 for Sustainable Energy. Pat Carullo from Damascus
11 Citizens, and Josh Fox from WaterUnderAttack.com.
12 That will be the panel that will follow this
13 current, very distinguished panel that we have
14 here. Okay, there we go, now we, now we have
15 everybody. Thank you. And pleasure to work with
16 this panel through the years, happy to have you
17 here with us. And--yeah, she's part of this. And
18 so we'll have the Counsel to the Committee swear
19 in the panel, and then we can proceed.

21 COUNSEL TO THE COMMITTEE: Please
22 raise your right hands. Do you swear or affirm to
23 tell the truth, the whole truth and nothing but
24 the truth today?

25 FEMALE VOICE: Yes.

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25

CHAIRPERSON GENNARO: Thank you, thank you very much. Kathleen, please, we'll start with you, I want to make sure I have your statement, and then we can--

KATHLEEN BREEN: I don't have a statement--

CHAIRPERSON GENNARO: Oh, fine, fine-fine-fine.

KATHLEEN BREEN: I will submit it to your office.

CHAIRPERSON GENNARO: Okay, okay. You bet.

KATHLEEN BREEN: Obviously in the interest of time and so that everyone gets the opportunity to speak today, I will be--

CHAIRPERSON GENNARO: Sure, thank you.

KATHLEEN BREEN: --brief and cherry pick from my testimony. Good afternoon, my name is Kathleen Breen, I'm the Watershed Protection Coordinator for the New York Public Interest Research Group, NYPIRG. Just want to commend the City Council and Councilman Gennaro for holding this hearing on an issue that's of grave

1 importance to the New York City Watershed, the
2 threat of natural gas drilling in the watershed.
3 As we've heard today, the unfiltered water supply
4 provides about a billion gallons of water to half
5 the state's population, and while we're fortunate
6 to possess what's arguably the greatest water
7 supply in the world, keeping it safe requires
8 constant vigilance. We've heard a lot about the
9 filtration avoidance determination today, the FAD,
10 or the filtration waiver from EPA, that waiver is
11 granted if the water supply, or in this case DEP,
12 can demonstrate that it meets strict water
13 quality, operational and watershed controls
14 criteria. Back when it was proposed in 1997, New
15 York State, New York City EPA, upstate
16 communities, upstate regulators, and the
17 environmental community, including NYPIRG and
18 Riverkeeper, joined together to sign the 1997
19 Watershed Memorandum of Agreement. The MOA
20 represented a comprehensive effort to protect and
21 preserve New York City's high quality water, while
22 preserving the economic vitality and social
23 character of the upstate communities. And by
24 signing the agreement, the City committed to
25

1
2 investing billions of dollars in preventative and
3 corrective measures to address water quality,
4 rather than spending billions of dollars treating
5 the water in the future. Since the MOA laid out
6 such aggressive programs, the filtration waiver
7 was granted by EPA, and since that time the City
8 has qualified for continued waivers; however, if,
9 as we've heard today, if the City fails to
10 demonstrate that it can successfully protect the
11 system from pollution, then the federal regulators
12 will likely order City officials to build a
13 filtration plant. And the practical consequences
14 of that decision will be that water rates will
15 rise, threatening tens of thousands of housing
16 units in the City's poorest neighborhoods; badly
17 needed funds will be drained from police,
18 infrastructure, healthcare, culture,
19 transportation, fire, sewage and other City
20 services; and worst of all, there's no guarantee
21 that a filtration plant will preserve public
22 health. As we said, the Watershed Memorandum
23 Agreement and the Filtration Avoidance
24 Determination does not guarantee that water
25 remains safe. That's our job, that's our job to

1
2 make sure that we're vigilant. We believe that
3 through the comprehensive protection efforts that
4 the City has invested, which as we said over the
5 \$2 billion to date, has paid off, the City has
6 continued to qualify. And there have been threats
7 over the years, whether it be the storm water
8 pollution, which we've heard a little bit about
9 today; whether it be the turbidity in the
10 Catskills, which poses a threat to the New York
11 City's continued filtration; or ill-conceived
12 developments. However, never before have we seen
13 such a threat to the integrity of our water supply
14 as the proposed natural gas drilling in the New
15 York City watershed. This, as we know, the
16 hydraulic fracturing carries a potentially huge
17 environmental price tag, and unfortunately the
18 draft supplemental generic environmental impact
19 statement, recently released by DEC, does not
20 provide the needed assurances that our water will
21 remain safe. Not only does DEC not provide
22 adequate time for the public to comment, it
23 doesn't provide the protections for New York City
24 residents that their drinking water will remain
25 safe. Therefore, New York City, and the New York

1
2 City DEP, the agency charged with overseeing our
3 water supply, can strengthen their watershed rules
4 and regulations and send a clear message to Albany
5 that drilling in the watershed is unacceptable.
6 New York City's irreplaceable water supply must
7 not be taken for granted. Prior generations have
8 done a great job of giving us a water supply.
9 It's our job to continue to make sure the future
10 generations have that same benefit. Therefore,
11 NYPIRG supports the Council's Resolution and
12 proposes a ban of drilling in the New York City
13 Watershed. Thank you. [applause]

14 CHAIRPERSON GENNARO: Thank you,
15 thank you, Kathleen. Deborah Goldberg, and I do
16 have your statement here.

17 DEBORAH GOLDBERG: In the interest
18 of time, I'm also going to--

19 CHAIRPERSON GENNARO: Thank you.

20 DEBORAH GOLDBERG: --just
21 abbreviate my statement, but I do want to take a
22 moment to thank you very much for your leadership,
23 for spending the long hours that you do at all of
24 the hearings that you've been holding. They are
25 absolutely essential to make sure that the voices

1
2 of the people of this City and the State as a
3 whole are heard on this issue. I will add my, I'm
4 Deborah Goldberg from Earth Justice.

5 CHAIRPERSON GENNARO: If I could
6 just, on that score, do we have a representative
7 of State government in the room? Not to testify,
8 but just to observe the proceedings? It just made
9 me think of something. [off mic comment] Yeah, I
10 just want to see if we have anyone from, who--
11 Pardon? There was--[off mic comment] Okay. And
12 I'm also engaging someone from the gallery, so
13 Craig's comments won't be on the record, but there
14 was someone here from DEC, right. What, from main
15 DEC or like, you know, DEC Region Two? [off mic
16 comment] Okay. I want to direct staff to put a
17 call into DEC Region Two, and to say that all
18 these people are still in the room, and we want
19 someone from DEC in the room. So--[applause,
20 cheers] So, we're--Yeah. Let's see, that would
21 be (718) 482-4949. [laughter] Is that their
22 number? (718) 482-4949? I think that's, I think
23 the Region's Two number. Brad, if you could tell
24 Bill, he's my environmental assistant, to you
25 know, contact Region Two, and to tell 'em that we

1 want Region Two, someone from DEC in the room.

2 It's like, how dare we have this whole thing and
3 not have anyone here from Region Two to hear each
4 and every word that's said. They work for us,
5 they have to hear this. [applause, off mic
6 comments] Sorry for the interruption, but I, you
7 just made me think of something when you said
8 something, and that spurred that, and there you
9 have it. Okay. Deborah, sorry about that, but
10 please continue.

11
12 DEBORAH GOLDBERG: Thank you. I
13 want to emphasize one point that has made, been
14 made very briefly, and then just add an additional
15 point that's not in my written testimony, but will
16 become part of the record. I want to say today
17 that I believe drilling should not proceed at all,
18 here in the New York city Watershed or in New York
19 State, until [applause] until--Until DEC adopts
20 formal regulations that are adequately protective
21 of the public health and the environment. The
22 regulations governing national gas development in
23 New York have not been updated since 1985. By
24 1994, an independent review of the program by the
25 State Review of Oil and Natural Gas Environmental

1
2 Regulations offered numerous recommendations for
3 improvement. New York did not update it's rules
4 at that time, and now, 15 years later, the
5 regulations are seriously out of date, and
6 inadequate to protect public health and the
7 environment from the impacts of gas development
8 processes, including hydraulic fracturing.

9 Governor Patterson ordered preparation of a
10 supplemental GEIS, because the State had never
11 examined the potentially significant adverse
12 environmental impacts of high volume hydraulic
13 fracturing. The DSGEIS confirms the inadequacy of
14 the current regulations and permitting program by
15 identifying numerous potentially significant
16 impacts of gas development that cannot be handled
17 by the current rules. Under the State
18 Environmental Quality Review Act, or SEQRA, DEC
19 must explain how it intends to mitigate those
20 impacts. Nevertheless, DEC has not proposed a
21 single new regulation. DEC is proposing to use
22 nothing more than new forms and permit conditions
23 as safeguards against the admitted dangers of gas
24 extraction. Under that system, the industry can
25 lobby against imposition of the conditions every

1 time it applies for permission to drill a well.

2 And the public will be forced to monitor thousands
3 of permits, one by one, to ensure that the
4 promised protections are actually in place. As
5 DEC well knows, that is an impossible job.

6 Moreover, unless they file Freedom of Information
7 requests, and read through lengthy technical
8 documents, landowners who have leased their

9 mineral rights will have no way of knowing whether
10 the companies extracting the gas are taking
11 adequate protections. In sum, there will be no

12 guaranteed baseline for environmental protection,
13 other than the decades old program that DEC has
14 recognized to be outdated. And no guarantee that

15 the measures to mitigate environmental impacts, as
16 described in the DSGEIS actually will be
17 implemented. DEC cannot take credit for

18 mitigating environmental impacts, and at the same
19 time keep unbridled discretion to decide whether
20 and when to include the mitigation measures in

21 permits. The DSGEIS must propose new regulations,
22 and when the environmental review process is

23 complete, the proposed regulations must be

24 promulgated through a formal rule making. That
25

1
2 procedure, unlike the permitting process, is
3 designed to provide opportunities for ample public
4 participation. And it is the only way to
5 establish transparent, consistent, state-of-the-
6 art, and enforceable requirements for the entire
7 industry across the entire state. Moreover,
8 nothing less will suffice as mitigation for
9 adverse impacts identified in the SGEIS. Of
10 course, permit conditions that are more protective
11 than the baseline regulations also may be required
12 to mitigate site specific impacts in particularly
13 sensitive areas. But until regulations are
14 officially promulgated, there should be no permits
15 issued for drilling in the Marcellus Shale, or
16 other low permeability formations, anywhere in the
17 state. [applause] Secondly, there should be no
18 permits issued for drilling of natural gas in this
19 state in the Marcellus or other low permeability
20 formations until we have adequate information to
21 guarantee that there is sufficient capacity to
22 treat and dispose of the waste water. DEC has
23 included as an appendix in the DSGEIS a list of
24 135 treatment plants, and has given the impression
25 that these will be available to receive waste

1
2 water. Our understanding is that there is no more
3 than three of them that are able to receive the
4 waste water. We know from what is going on in
5 Pennsylvania right now, that if there's nowhere to
6 take the waste water, we're going to be shutting
7 down sewage treatment plants, or we're going to
8 have our streams and rivers killed by
9 contamination. The DEC should be requiring,
10 should be producing a cumulative impact analysis
11 that shows exactly, or provides a reasonable
12 estimate, of how much waste water is going to be
13 generated by the permits they intend to issue, how
14 much capacity there is in existing waste water
15 treatment facilities to take that waste water, how
16 many of the plants actually have permits, or have
17 applied for permits that would enable them to
18 treat and process that waste water, how many new
19 treatment plants they expect will be required
20 given the lack of capacity that we currently have,
21 and what the impacts will be of building all those
22 new treatment plants. None of that appears in the
23 current GEIS. And finally, they should be
24 requiring each permit driller to produce a
25 contract with a waste water treatment plant, that

1 documents that they have a place that has agreed
2 and has legal capacity to accept the waste water,
3 before DEC issues a permit for the drilling. I
4 will add my voice to the request for additional
5 time and my concerns about the legitimacy of the
6 cumulative impact and alternatives analysis, but I
7 will hold my remarks down for the, in the
8 interests of time.

10 CHAIRPERSON GENNARO: Thank you,
11 thank you. And before we go to a [applause] thank
12 you very much, Deborah. Now, before we, before we
13 got onto Ken and to Annie, did you, Bill, did you
14 talk to--[off mic comment] Okay. Why don't we do
15 this? Go see Bill and bring to me the phone
16 number of, the actual phone number of, you know,
17 DEC Region Two, and also of the main DEC office in
18 Albany. And then, I'll give those numbers out to
19 some of the people that are here [laughter] and
20 people go out on their cell phones and they should
21 call Pete Grannis's office, and then just all the
22 Region Two Office, so that way it's not just
23 coming from us. They should get a bunch of phone
24 calls saying like "When is the person going to
25 come here?" and like "Why did this person leave?"

1
2 So, again, this is not--we're not having fun with
3 this, we're just trying to like send a statement
4 that it's like inappropriate that all of us, you
5 know, come here together. I'm getting paid to be
6 here, but I don't think anybody else is, and that,
7 you know, those are that are, that have
8 responsibility over this very serious matter,
9 should not only come to listen at their own
10 hearings that they hold, but you know, any bona
11 fide assemblage of people who are coming together
12 to talk about this important thing. So, give me
13 those numbers, it would be the Region Two number,
14 and you know, the main DEC number, in Albany, and
15 people take their cell phones, go out in the
16 rotunda and give them a call want--you know,
17 wanting to know what's up. And we're sure that no
18 one from DEC is in the room here, right? We're
19 sure of that. Okay. Fine. Okay. So, Brad,
20 Bill, get me those numbers, and then I'll announce
21 them to the folks here. And then people will make
22 some calls. Ken.

23 KEN BAER: Thank you very much,
24 Council Member Gennaro. Thank you for holding
25 these hearings today, and giving everyone an

1
2 opportunity to comment on this critical issue. My
3 name is Ken Baer, I'm the past-Chair of the
4 Atlantic Chapter of the Sierra Club, which
5 encompasses all of New York State and where we
6 have 38,000 members. An abundant amount of clean
7 water is needed to sustain human life, as well as
8 life on earth. Everything must be done to protect
9 the water supply in all of New York State. The
10 Sierra Club recognizes the danger to water quality
11 in New York State that hydraulic fracturing
12 represents. The use of hydraulic fracturing to
13 extract natural gas from impermeable rock such as
14 the Marcellus and Utica Shale formations needs to
15 be addressed by the New York State Legislature.
16 Water supplies have been irreparably contaminated
17 and people have developed severe health problems
18 where runoff from hydraulic fracturing has
19 infiltrated drinking wells. These real life
20 horror situations are playing out in many states.
21 Some of the chemicals the gas and oil industry
22 uses to extract gas are highly toxic and non-
23 biodegradable. Once these compounds get into
24 water supplies, it is virtually impossible to
25 filter them out. Gas drilling entities have

1
2 already caused people and farm animals to have
3 skin problems, brain lesions, cancer and
4 reproductive disorders. Their activities
5 contaminate our water, soil and air, and have
6 already adversely affected New Mexico, Colorado,
7 Utah, Wyoming, Ohio, Pennsylvania and Texas. In
8 several places, people can ignite their drinking
9 water. As much as New York City is concerned
10 about its own water supply, it must not take a
11 provincial attitude toward the issue of fracking.
12 A strong message must be sent to both the State
13 Legislature as well as the Governor, that this
14 great progressive City is not only interested in
15 its own watersheds, but those in the rest of the
16 State. All of us are well aware of the phrase,
17 "United we stand, divided we fall." This is an
18 opportunity to tell the legislature that this is
19 not just a New York City problem, but a statewide
20 problem. The Sierra Club looks to this City
21 Council and the State legislature to address the
22 dangers that this form of gas drilling represents
23 to the entire state. Every New Yorker must be
24 assured that their drinking water and food is not
25 riddled with highly toxic drilling chemicals, and

1
2 that the food sheds for New York City and other
3 urban centers are not compromised. All people are
4 precious and all 17 watersheds in our State are
5 sensitive, and special because they're crucial for
6 the livelihoods and the survival of all the people
7 who live in them. Thank you very much.

8 CHAIRPERSON GENNARO: Thank you,
9 Ken. [applause] Always a pleasure to have you.
10 Okay, and where's Bill, is Bill here? Okay. Did
11 you, you called over to DEC, right? Okay. Okay,
12 just come here, just--[laughter] [pause] Okay.
13 Let me do the following. The main DEC number, I
14 hope it's a good one, let's see how good my staff
15 did here. I have (518) 402-8013. That's an
16 Albany number, of course. And DEC Region Two,
17 (718) 482-4900. And I have no problem whatsoever
18 with people, in a very polite way, just calling
19 these people up and saying, "There was someone
20 here from DEC before, but we're here giving
21 critical information, and people from DEC should
22 be here to hear what we have to say. And I'm a
23 constituent, I'm, I live in New York State, and
24 why is DEC not here, you know, to hear the
25 testimony that we've put together. We've

1 researched the document and we're here, you know,
2 giving our views, and yes, we're going to give
3 views at the State hearing, but, you know, this is
4 a bona fide assemblage of people before the City
5 Council talking about this critical State issue.
6 Where are the people from DEC? Someone should be
7 here." So, I don't want people to be
8 disrespectful to the State DEC, these are good
9 people, they've dedicated themselves to the
10 environment and to public service, as have I. But
11 I'm here and they're not. So, they should be
12 here, I think. So, DEC main number: (518) 402-
13 8013. I hope that that's a good number; if it's
14 not, let me know. And then (718) 482-4900.
15 Although, I recall dialing 4949. So, maybe that's
16 an alternative number, (718) 482-4949. The number
17 that staff gave me is 4900. So, there you have
18 it. You know, you have freedom of speech, you
19 have a cell phone, and knock yourself out. And
20 so, we've also called, and I think this is just
21 part of, you know, sending the signal to DEC that
22 we really mean what we're doing here. This is not
23 playtime, this is not fun and games, this is not,
24 this is not a hobby, this is not something to do,

1
2 it's not a trip to City Hall to see the statute of
3 George Washington when you walk in. And, you
4 know, go to the elaborate vending machine that we
5 have in the basement where you can get like a
6 granola bar, or something. [laughter] I mean
7 this is, this is, we're trying to conduct the
8 people's business here, this is a very important
9 matter before DEC. DEC at a minimum, if they
10 choose not to testify, which they've chosen not to
11 do, that's fine. But they should be in the room,
12 that's what I think, and if that's what you think,
13 you should tell 'em. Okay. [applause] And staff
14 has informed me that DEC has provided a written
15 statement, which I'm grateful to get. But they
16 should, and while I'm happy to have their
17 statement, they should be here to listen to all of
18 your statements. That's what I think, anyway.
19 So, Annie, you're on, Annie Wilson, also from
20 Sierra Club, been here many times before.
21 Pleasure to have you here again.

22 ANNIE WILSON: Thank you for the
23 opportunity to offer comment on this significant,
24 critical matter, our watershed.

25 CHAIRPERSON GENNARO: Sure.

ANNIE WILSON: So, I'll skim through my comments quickly, and--Well, the members of the gas drilling taskforce for the Sierra Club Atlantic Chapter have been studying the impacts of hydrofracking in horizontal drilling in the Marcellus Shale formation in New York State, and have discovered that there are no best management practices that make this form of gas drilling an acceptable risk to our health and the environment. Regarding the proposed resolution 1850-A, which calls on to the State Legislature, the DEC, Governor Patterson, to prohibit drilling for natural gas within the boundaries of the watershed for the New York City drinking water supply, we support the fact that all New York State watersheds must be protected from existing hydrofracking techniques [applause] used to release gas from the shale formations. Hazardous and dangerous chemicals are injected with water into the ground to facilitate this process. One well may be injected with 10,000 pounds of chemical substances, combined with millions of gallons of water. The disclosure of the exact content and volume of fracking fluids

1
2 does not protect against them, and does not reduce
3 their toxicity. Even if fracking fluid chemicals
4 were not used, substances that normally remain
5 underground are brought to the surface by the
6 fracking process. The release of arsenic, heavy
7 metals, radon and other radioactive carcinogens
8 are of sufficient concern in their own right to
9 preclude support of this inherently toxic process.
10 It's been stated that in Pennsylvania, 60 to 70
11 percent of the water used in hydrofracking within
12 the Marcellus Shale formation stays underground,
13 and does not return to the hydrologic cycle. The
14 water can shift underground and contaminate wells
15 and aquifers. The portion that returns to the
16 surface contains the industrial chemicals. The
17 New York State Geological Society has identified
18 natural fissures as a major source of fugitive
19 methane. Fracking causes fractures not just where
20 the gas is meant to escape, but along unmapped
21 fissures, lines of least resistance, into large
22 and small aquifers, individual wells, homes,
23 basements, thus escalating a dangerous situation
24 into an uncontrolled one. While the recent New
25 York State DEC DGEIS for natural gas drilling

1 gives no indication of the actual waste water
2 capacity for all of New York, the appendices lists
3 134 eligible pre-treatment plants across the
4 state, giving the impression that we may have a
5 sufficient capacity to remediate the chlorides,
6 heavy metals, BOCs, benzene, radium, and the tens
7 of thousands of gallons of industrial chemicals
8 associated with flow back water. But of those 134
9 listed, only three plants currently accept natural
10 gas production water, and in a limited capacity.
11 New York has virtually no waste water
12 infrastructure to service the needs of the
13 Marcellus Shale gas extraction industries. In
14 spring 2008, this is a case current, ongoing
15 issue, to demonstrate as a model for the statement
16 I've just made. Coverland [phonetic] Energy began
17 the permitting of a vertical well in Maryland, New
18 York. As one of the first wells in Oswego County,
19 the DEC required disclosure of where drilling
20 fluids were to be disposed. Coverland Energy
21 needed nearly a year to secure a letter of
22 commitment from a publicly owned treatment works
23 facility--that's a POWT--willing to take their
24 waste water. The facility is nearly three-and-a-

1
2 half hours away in Watertown, and has no previous
3 experience in drilling wastes. Even though the
4 DEC gave their approval to the arrangement, the
5 EPA, who administers the industrial pretreatment
6 program, was not notified and has since expressed
7 concern about the lack of disclosure. If 50,000
8 gallons of waste water has that much difficulty to
9 find a treatment source in New York, it is easy to
10 imagine the capacity constraints for the millions
11 of gallons of waste water inherent to a single
12 Marcellus gas well. We have been unable to
13 determine the waste water's final destination from
14 those projects, and in general the DEC does not
15 currently track the movement of waste water. My
16 colleague Roger Downs has been told that the
17 majority of the waste water went to the large
18 industrial Pennsylvanian treatment plants, but he
19 has been informed by conversations with plant
20 managers that there is little New York waste water
21 going across the border, because Pennsylvania is
22 already at overcapacity. So where is all this
23 waste water going? Last year, the DEC estimated
24 there will be a \$36.2 billion deficit in New
25 York's waste water infrastructure needs over the

1
2 next 20 years. Environmental advocates of New
3 York documented that the DEC has administratively
4 renewed or rubberstamped 90 percent of the permits
5 in need of renewal, instead of substantively
6 reviewing the performance of these facilities and
7 their impact, their pollution, may have had on the
8 State's lakes and streams. The DEC simply does
9 not have the staff or funding to administer a
10 pretreatment program for gas production wastes
11 that would sufficiently protect our watersheds.
12 There is the need for a cumulative assessment for
13 all hydrofracking impacts. Further issues of
14 concern include incessant and extreme noise from
15 hydrofracking, destruction of wildlife habitat,
16 deforestation, and the vulnerabilities of the
17 State's recreation industries. Shale gas should
18 not be considered a transitional fuel, or having a
19 transitional role due to the adverse public health
20 and environmental impacts. New York State has
21 made considerable progress with energy efficiency
22 and sustainable energy developments. An increase
23 in natural gas production will displace the
24 potential for the implementation of wind, solar,
25 and other innovative low carbon and nuclear free

1
2 sustainable energy systems. A policy that
3 supports expansion of the extraction of shale gas
4 is a short term solution benefiting only special
5 interests to the detriment of public health and
6 the environment. The Sierra Club requests the
7 Committee to use its full powers to protect all
8 New York State's watersheds and communities,
9 directly and/or indirectly impacted by deep shale,
10 horizontal fracturing gas extraction. Thank you
11 for your consideration of these comments.

12 [applause]

13 CHAIRPERSON GENNARO: Thank you.
14 Alright, thank you, Annie, pleasure to have you
15 here today, as always; and Ken and Kathleen and
16 Deborah. In the interests of time, I'm not going
17 to have any questions or comments, but I thank you
18 very much for all that you're helping us do here.
19 And you brought a real value added to this
20 discussion here today. Thanks very much.

21 ANNIE WILSON: We'll call the DEC.

22 [applause]

23 CHAIRPERSON GENNARO: And the next
24 panel, which I had previously announced, but I
25 left off one very important member of the that

1 panel, I would like to include, certainly, Al
2 Appleton, the former DEP Commissioner. [applause,
3 cheers] We appreciate Al being here today. And
4 so, I ask Al to come forward, along with whoever I
5 announced previously. Joe Levine, Michael Lebron,
6 Pat Carullo, Josh Fox. I just need a minute, I'll
7 be back in just a moment, but in the meantime
8 we'll have the panel to get themselves set up.
9 And then the Counsel to the Committee can swear in
10 the panel. By that time, I'll be back, and we
11 will continue.

12 [long pause]

13 COUNSEL TO THE COMMITTEE: Please
14 raise your right hand. Do you swear or affirm to
15 tell the truth, the whole truth and nothing but
16 the truth today?

17 MALE VOICE: [off mic] Yes.

18 COUNSEL TO THE COMMITTEE: Thank
19 you.

20 [long pause]

21 CHAIRPERSON GENNARO: Okay. Sorry
22 for the interruption. And I'm back, and--What I'd
23 like to do with this panel's indulgence is to hear
24 from our good friend Al Appleton, of course former
25

1
2 DEP Commissioner, who was really the main
3 architect of a lot of the good things that we're
4 doing now to try to preserve our watershed in
5 perpetuity. And I'm also happy that he's doing a
6 lot of these activities around the world, trying
7 to get other areas around the world to emulate
8 some of the great work we've done here in New York
9 City under his guidance. And kind of a strange
10 irony that he has to take a break from his
11 activities around the world to come here, so that
12 we here in New York City will have benefited from
13 this great program, don't have it all undone. So,
14 it's a, you know, great to have Al with us here
15 today, and I want to get the benefit of your
16 views. Of course we've been, you know, talking
17 throughout this process, and you participated in
18 some of the statements and events and things that
19 we've done, but want to get the benefit of your
20 views, both on where we are now, you know, with
21 regard to the document that's come out from the
22 State, the Resolution on the Council that's
23 currently under consideration. Certainly we want
24 to make that better. Happy that you're here to
25 help us make it better. And we'd be grateful for

1
2 whatever you have to add to our discourse here
3 today. A pleasure to have you.

4 ALBERT APPLETON: Thank you,
5 Councilman. I apologize for being late. The, I'm
6 in the middle of the visa process from hell. But
7 I have to tell you, I'm not actually just
8 proselytizing overseas, there are lots of people
9 who are coming to us. Like the Brazilians who
10 want to emulate what they see to be the benefits
11 of New York City's innovations in protecting the
12 watershed. And I, as you do, I find it extremely
13 ironic that everyone in the world seems to be
14 applauding except our state government. That
15 seems to have some difficulties here. I also want
16 to commend you and your colleagues on the Council
17 for the Paul Revere role you have played. You
18 know, from the very beginning of this process over
19 a year ago, in trying to mobilize public opinion
20 and support, to understand this is the enormous
21 threat the wellbeing, not only of the City or the
22 State of New York, that gas fracking proposes.
23 And I want to kind of talk about that. I want to
24 start with the DI--and starting with the DIS, I
25 understand all of these hearings will be submitted

1
2 as comment on the DIS, and I think that's very
3 important. I was struck by the statement that
4 Commissioner Grannis made in his cover letter that
5 I have no intention of allowing any threat to, you
6 know, the watershed to be filtered. Unfortunately
7 for Commissioner Grannis, he's up against my
8 mother, who never ceased to say that the road to
9 hell is paved with good intentions. And I would
10 much prefer to see less rhetoric, stalwart as it
11 might be, and more of Commissioner Grannis's time
12 spent on drafting legislation that would impose
13 fees on the natural gas industry to pay for the at
14 least 500 enforcement people it will take to
15 supervise this industry in areas where it will be
16 appropriate, which of course does not include ours
17 or any other watershed. I'd like to see him
18 announce that the Governor is going to make a top
19 environmental priority. And I would like to see
20 him announce that no permits, whatever it takes
21 this process through, will be granted until that
22 enforcement staff is up and running. Keep in mind
23 that when we did the watershed protection program,
24 we had to add 600 people to DEP--lab people, field
25 people, administrative people, lawyers--to cover

1
2 an area that is a tenth of the size of New York
3 State, and is a less complicated problem. Until
4 the State says something real about enforcement,
5 all this DEIS is, and unfortunately all the letter
6 from Commissioner Grannis represents, is a refugee
7 from a recycling center. In fact, speaking
8 technically for a second, the EIS should've had
9 two alternatives: it should've had this utopian
10 alternative, where somehow everything is going to
11 take place without any enforcement; and it
12 should've had a real world enforcement statute.
13 And to craft that, I could strongly advise that
14 the testimony you're going to hear after I speak
15 from this panel should be the first places the
16 DEIS staff for the State of New York should be
17 visiting, 'cause they will certainly get an
18 eyeful. Now, the second problem with the DEIS is
19 that it comes from completely the wrong decision
20 making point. And I want to commend the
21 Department of Environmental Protection for its own
22 initiative, and for its willingness to listen to
23 lawyers by yourself, by coming down firmly on the
24 side of what is sometimes called "the
25 precautionary principle." We do not have to prove

1
2 that natural gas drilling in a watershed or in a
3 water resource area is harmful. It is up to the
4 other side, those who advocate it, to prove that
5 it is harmless. We've already seen from the
6 studies the City has done, not to mention all the
7 testimony and experience from the environmental
8 and civic community that is being presented here
9 today, that they are simply not going to be able
10 to do that. The statement in the draft EIS, and I
11 don't know who wrote it, that there is no
12 reasonable way we can deny drilling in the
13 watershed, really puts one in mind of Michael
14 Corleone's famous statement in "The Godfather,"
15 "Whatever you do, please do not insult my
16 intelligence." For a statement like that insults
17 the intelligence of everyone on the City Council,
18 everyone in the government of New York City and
19 State, and 95 percent of the citizenry of the
20 State of New York. The idea that you can't do
21 anything more under the police power of the United
22 States and the State of New York than order a few
23 steel tanks, impose a couple of setbacks, and you
24 know, insist that the natural gas companies
25 promise that they will be good, is absurd.

1 [laughter] And it kind of went out of style about
2 1850 in London when we abandoned laissez-faire in
3 the interests of preventing typhoid cholera from
4 once again eating through the London population.
5 So, it's easy to dismiss this, but I think we
6 should notice the insidiousness of its wording.
7 When they say there's no reasonable basis to deny
8 permits in the watershed, or for that matter any
9 other water sensitive area, they are not just
10 stating a conclusion, that is very specific
11 administrative law language. And it is designed
12 to essentially insulate them from the kinds of
13 challenges that they are going to get, to in fact
14 establish a no-drill zone in the watershed and
15 other places like the Delaware River basin. They
16 are essentially trying to portray themselves as
17 being forced to allow this drilling, which again,
18 as I say, is a conclusion that challenges a lot of
19 things. But the fact that they are taking this
20 position means that in some way or another, they
21 are not only standing by and permitting drilling
22 in these water sensitive areas, they are trying to
23 force it into these areas. That this statement,
24 whether intended to be or not, is an active,

1
2 aggressive promotion of frack gas drilling over
3 the public health interests of the City and the
4 State of New York. And the insidiousness of it
5 should be recognized, and I can only say that the
6 only good thing about it is that it's going to
7 keep a lot of lawyers and a lot of judges very
8 busy, over the next year. I was very pleased to
9 see the previous witnesses from the Sierra Club
10 pick on something, up something that has long been
11 a theme of mine, which is the fracking gas policy
12 of the State of New York is a stab in the back to
13 green energy. Except in this case, the City of
14 New York is stabbing itself in the back, which
15 probably explains why some of these DIS statements
16 are so contorted. But let us recall the fact that
17 on everybody's bill, everybody's utility bill,
18 every month you pay a sum of money that statewide
19 totals well over a billion dollars to promote
20 green energy. But what is the biggest obstacle to
21 green energy? The biggest obstacle to green
22 energy is that we have subsidized carbon sources
23 of carbon combustion. And that the non-
24 enforcement of environmental standards and the
25 resulting externalization of drilling costs is

1
2 going to represent a multibillion dollar subsidy
3 to the natural gas industry that is competing as a
4 utility fuel with green energy. I've always
5 remembered Milton Friedman, the great conservative
6 economist, standing on the mall once, and pointing
7 to the Department of Agriculture and saying, "Over
8 here we well meaning people spend billions of
9 dollars to encourage the growth of tobacco." He
10 then points to the Department of Health and Human
11 Services and says, "And over here, we have equally
12 well-meaning people spend even more billions of
13 dollars dealing with the health effects of smoking
14 that tobacco." If he were alive today, he would
15 come to the Albany mall, he would first point to
16 the NYSERDA and others and say, "Over here we are
17 spending billions of dollars to try and promote
18 natural gas." And he'd point to the Department of
19 Environmental Conservation and say, "Over here
20 we're spending billions of dollars to undermine
21 green power." And he would again conclude one of
22 these people is wrong. Now, it has been heard,
23 and in the otherwise solid New York Times
24 editorial, this canard was repeated, that natural
25 gas is a transition fuel. And given that the

1 burning of coal, not only from a global point of
2 view, but from the deposition of mercury,
3 incites strong passions. It's not surprising that
4 many people are looking for a quick kill, in terms
5 of getting rid of coal burning in the United
6 States. But when they talk of natural gas as a
7 transition fuel, they are failing to distinguish
8 between traditional natural gas, which is
9 relatively low impact environmentally. And
10 fracking gas, which has a huge impact and under no
11 stretch of the imagination can be considered a
12 transitional fuel. Yet unfortunately in Congress,
13 as we look at the pieces of global warming
14 legislation, we're seeing a food fight between,
15 instead of concentrating on how we're going to
16 reduce, you know, carbon combustion, we're seeing
17 a food fight between the coal industry, the oil
18 industry, and the natural gas industry, over
19 subsidies. When what we should be trying to do is
20 squeeze out these subsidies as quickly as
21 possible. And the first subsidy is environmental
22 non-enforcement. Now, to the extent there is a
23 legitimate need for natural gas, one of the things
24 this DEIS did not do is look at alternatives to
25

1
2 fracking. For example, there is in the Prudhoe
3 Bay oilfields of ill fame and unfortunate memory,
4 enough natural gas sequestered that it could
5 supply a billion, one-and-a-half trillion thousand
6 cubic feet a year of natural gas for nothing more
7 than the environmental and financial cost of
8 building a pipeline. There is liquefied natural
9 gas, the Arabs and others having finally woken up
10 to the fact that flaring off natural gas is a
11 really bad idea. But liquefying and selling it is
12 not only a good idea, but can buy you a lot of
13 global warming credits, as well. And finally,
14 there is the whole issue of leaky natural gas
15 pipes. Some of you may recall that when we did
16 the water conservation program for New York in the
17 early '90s, one of our key innovations was not
18 just to go after reducing consumer water use, but
19 first of all to tighten up DEP's own system, to
20 the point where DEP loses less than ten percent of
21 its water in leaks, where we stopped the
22 essentially the flooding of hydrants in the
23 summer. There's a vast potential quantity of
24 methane that has now leaked into the environment
25 that can be recaptured with no cost to the

1
2 consumer and no additional impact on the
3 environment. The failure of the EIS when
4 assessing the benefits of natural gas, to look at
5 the alternatives, in terms of natural, you know,
6 natural gas sources, is another blatant hole in
7 this document. Now, you're going to hear an awful
8 lot of specifics. So I'm not going to go into
9 those. But I do want to essentially deal with two
10 water facts. First of all, the industry likes to
11 say there's no proof and no instance that can ever
12 be cited that deep well injection of this material
13 has polluted an underground aquifer. As far as I
14 can tell, that's true. But of course, we've only
15 been in business four years. But the one thing we
16 do know from all the surface wells that have been
17 polluted, is that once underground this stuff is
18 going to move. And so that the fact that, you
19 know, as the industry goes around trumpeting that
20 there's been no deep aquifer pollution yet,
21 doesn't mean anything. Moreover, even the current
22 DEIS acknowledges that this premise depends upon
23 the integrity of the drilling process, and the
24 casing process. And that integrity in turn, if
25 you look at private sector standards, depends on

1
2 having on site, independent safety inspectors
3 while there is a pour. How, going back to my
4 point on enforcement, how the Department of
5 Environmental Conservation proposes to do this.
6 With the staffing that at the moment adds up to
7 one person for every 2,000 projected wells. And
8 even if double, would be one person for every
9 1,000 projected wells, so that if we cut the
10 industry estimates in half, we've still got one
11 person for 500 wells, is beyond me. The other
12 thing that I think is really critical to talk
13 about is that when we think about New York City's
14 watershed, and we're justly proud of its iconic
15 status. We forget the fact that many of the
16 compounds they're talking about using, and many of
17 the compounds that would pollute our water, are
18 not the kinds of compounds that would be gotten
19 out by ordinary filtration. So that the existing
20 costs of filtration, which by and large depend
21 upon a standard filtration system to deal with
22 bacteria and pathogens, are not relevant to a
23 system of filtration that is going to need an
24 additional treatment train, and may very well need
25 techniques like reverse osmosis, to take out these

1
2 essentially highly toxic, virtually
3 indestructible, non-biodegradable compounds. And
4 that has great significance for the people
5 upstate, who are looking at what is going to
6 happen to the New York City watershed as a guide
7 to what's going to be done to protect their water
8 supplies. It's not just a question for them,
9 putting this stuff through treatment. They, too,
10 may in effect face a new round of filtration, a
11 round of filtration and water treatment that was
12 totally ignored in the DEIS, if these compounds
13 get into their water supplies. It's just not
14 surface water, slumber J [phonetic] right now is
15 proposing outside of Elmira to build a facility, a
16 chemical handling facility on top of the primary
17 aquifer that serves the City of Elmira. And most
18 people know these facilities are essentially, you
19 know, brownfields in preparation. So, that we're
20 not just looking at filtration, enhanced
21 filtration for New York City, we may be looking at
22 this for a whole series of other water systems,
23 and water sources, throughout the State. There
24 could be no bigger mistake than for upstate to
25 think they have no stake in this battle or for we

1
2 to think that we in New York are not all in this
3 together. There are people upstate who are
4 concerned that New York City is going to settle
5 for just protecting its watershed; what they
6 really should be concerned about is at the end of
7 the day, faced with overwhelming evidence, the
8 State may throw people a bone and save the New
9 York City watershed, but ignore everybody else's
10 water needs. We understand that problem and I
11 think it's time the State of New York did. Now,
12 what's going to happen next? [applause] I'm
13 still a bit shell shocked at some of the people
14 whose fingerprints are on this draft EIS. But I
15 take comfort from the fact that it's so far still
16 a draft. And I'm a little bit of a believer in
17 Winston Churchill, which he once observed that
18 "Americans always do the right thing, after
19 they've considered doing everything else."
20 [laughter] The, so it is my hope that as we, the
21 overwhelming evidence of the foolishness of this
22 course, that it is smart neither in law or logic,
23 that it's an economic loser and a social,
24 potential social catastrophe. And that above all
25 it's simply wrong. Is going to at the end of the

1
2 day sway people who in the past I, like Governor
3 Patterson, like Commissioner Grannis, who in the
4 past I have not associated with this kind of
5 shortsighted, myopic view. And I hope that we can
6 go through the comment period on the DEIS from
7 that perspective. I hope that we can look at it
8 in the words of, if I may, you know, since I'm
9 having a roll on history, as Lincoln once said,
10 let us see if we can resummon the better angels of
11 everybody's nature here, and get them to face up
12 to what this DEIS report really represents. I
13 also have a belief, and maybe it's from the budget
14 battles I fought when I was mud wrestling the
15 water rates back to zero, it's from my own
16 experience as a budget brat many, many long years
17 ago, that there's some ugly fingerprints of the
18 State Budget Bureau, all over this proposal.
19 'Cause I've never forgotten what David Axelrod
20 told me when we were negotiating the first
21 filtration agreement for the City, "Beware of
22 budget bureaus, they will always sell out the
23 future for the present." And it's difficult for
24 me not to speculate--I don't want to draw any
25 conclusions, 'cause it's much too early--as to

1
2 whether or not what we're seeing as a budget
3 bureau that is so overwrought with the current
4 fiscal crisis, which admittedly is pretty
5 staggering, that they are willing to do anything,
6 consider anything, that will give them some cash
7 flow. So he says at the moment, this is only
8 speculation. But having heard no better
9 explanation from the Governor's office or from the
10 Department of Environmental Conservation. Neither
11 I nor many others, from whom I originally heard
12 this, are going to be at rest [phonetic] at this.
13 And I will tell you what to look for. If we see
14 in the proposed state budget there's a plug number
15 for natural gas revenues, you know, then there
16 very well could be, then we will not only, you
17 know, have to go to red alert, but we will know
18 that one of the strategies budget is thinking of
19 is essentially political blackmail. Which is you
20 either agree to this kind of natural gas revenue,
21 or you have to come up with more money or more
22 budget cuts. So, in addition to the legal and
23 other issues, I think we have to be ready in the
24 financial front to call their bluff on this, which
25 should be just the latest in a long series of

1
2 fiscal gimmicks we've seen from New York. And
3 I'll tell you what they're thinking about
4 filtration, 'cause frankly it's the only logical
5 explanation I can come up with for a position that
6 is this far out in left field. They may be
7 thinking about with filtration is we get the
8 revenue now, it'll be five to ten years before
9 filtration really has to happen. We'll have
10 gotten the money we want, we'll be long gone. And
11 it will be the City's problem to deal with. And
12 we have to face the fact that this could happen.
13 Now, this is incredibly shortsighted by whomever
14 behind it. The natural gas industry so far is not
15 behaving like GE or Inray Swiss [phonetic], and I
16 apologize to the people in the natural gas
17 industry who are not in the fracking business, but
18 if they're allowing the frackers to hide behind
19 them, they are going to have to risk being subject
20 to some confusion. We're not going to have
21 natural gas fracking in this country very long if
22 the natural gas fracking industry continues to run
23 its operations as if this were the Wild West. It
24 is clear from their initial forays into Ohio and
25 Pennsylvania, they think they are still out in the

1 middle of Wyoming, where it is flat, arid,
2 publicly owned, lightly populated, and far away
3 from the gaze of the media and others. Instead,
4 they are now in the northeast, where the land is
5 hilly, wet, privately owned, full of people, and
6 subject to the kind of scrutiny of the kind that
7 it is getting today. That's not going to last.
8 Dick Cheney did this industry no favors by
9 allowing them to believe that they could make a
10 lot of money by operating outside the
11 environmental housekeeping standards that even the
12 neighborhood drycleaner has to adhere to.
13 [applause] That--if this, if there's going to be
14 any place for fracked natural gas in America's
15 energy future, then this industry has got to make
16 up its mind that it is going to run itself
17 sustainably. What I mean by sustainable, that it
18 stays out of water sensitive areas, of
19 historically sensitive areas, of areas that would
20 undermine the local rural economy; that works with
21 local governments to properly zone and organize
22 this, though the complaints that are already being
23 heard about endless car traffic, 24 hour noise and
24 lights, and the disruption of all local economic
25

1 activity not related to gas, are undermined. It
2 is going to have to develop biodegradable methods
3 of creating fracking fluids, and is going to have
4 to have cradle-to-grave for tracking them. This
5 is not an impossible standard. We do this in
6 clean labs. We do this in many kinds of
7 industries. The Germans and Japanese do this with
8 solid waste all the time. But the natural gas
9 industry has got to make up its mind not to sell
10 out its future for the hopes of a few extra
11 profits in the present. At the end of the day,
12 when I--the people are going to read the statewide
13 outpouring of comments, expertise, analysis, at
14 the end of the day what I hope they do is they,
15 you know, when they come to New York City, I hope
16 they look in the face the fact that they're not
17 just fooling with the watershed yesterday, they're
18 not just fooling with the programs that in the
19 '90s we put together to protect it. That what
20 they're looking at is 175 year tradition of the
21 New York City water system. I'm often asked
22 overseas, "Well, you know, these are great things
23 you people in New York City did, but we're a poor
24 city." And what I tell people is, "Have you ever

1
2 seen the movie 'The Gangs of New York'?" And a
3 surprising number of people have. And I said,
4 "That's the city that built the Croton Water
5 System." That we made the decision in those years
6 not to sell out the future for the present, that
7 the tradition of the New York City water system--
8 and it has made it not only our greatest civic
9 achievements, but recognizably one of the great
10 civic achievement of the world--has never been to
11 do the short term or the easy thing. It is to be
12 able to do the difficult and hard thing. I'm very
13 fond of the story from the early years of the
14 water system, when we were first building Croton
15 and the Great Depression of 1837 hit. And the
16 real estate owners were paying the major burden
17 for one of New York's wise moves in those years
18 was the tax the wealth of the City, and the wealth
19 that would profit from growth. Went to John Jacob
20 Astor as the richest and most powerful private
21 citizen in New York to lead the attack against
22 this enormously excessive thing the people were
23 building. And Astor invited them in, asked if
24 they would like tea, and said, "Gentlemen, by the
25 way, before I serve tea, I should make it clear

1
2 that I believe New York City can never pay too
3 much money for pure and abundant water." And
4 history records that ten year later, the value of
5 every one of those pieces of property had tripled,
6 and that New York City had done best by doing the
7 right thing, not the expedient thing. I hope that
8 the DCs and the Patterson Administrations of the
9 world will look this tradition in the face when
10 they read all of these comments, and realize that
11 this is a mistake, but there is still plenty of
12 time to fix it. That if they want to play a role
13 in the frack gas industry of the future, they
14 should send the signal this industry desperately
15 needs, that the future is sustainability or
16 nothing. I'm often asked in closing if I believe
17 there should be a ban on frack gas extraction. I
18 say that's not up to me, that's up to the fracking
19 gas industry. Because if they do not mend, as
20 they used to say in the melodramas, their evil
21 ways, there's going to be - - . And that's the
22 choice. You know, we're standing up here for,
23 it's not just the watershed, not just the water
24 and the landscape of the State of New York, we're
25 standing up for a smarter energy future, which

1 this country also desperately needs. Mr.
2 Chairman, I urge you to continue those terrific
3 things you've been doing, Jim, and whatever we can
4 do to help. Thank you. [applause, cheers]
5

6 CHAIRPERSON GENNARO: Well, thank
7 you.

8 MALE VOICE: Oh, you got - -
9 [laughs] thank you, Al.

10 CHAIRPERSON GENNARO: Well, I think
11 we have just, I think we have to get a video of
12 your statement and show it in every school in New
13 York State, I think it would be a, would be a
14 place to start. [applause] And I [pause] sure,
15 we'd be happy to put you on next. I certainly do
16 appreciate that. And I'm actually going to have
17 to make arrangement with someone else to pick up
18 my daughter. [laughter] And, but let me just
19 thanking Al for his great, for his great work on
20 behalf of, you know, what we're trying to do here
21 in the New York City watershed, and throughout the
22 State. I also have to, I'll be reaching out to
23 you a little further to refine the resolution
24 that's under consideration by the Council. Want
25 to make it the best document that it can certainly

1
2 be, that would, that will be a document and a
3 resolution that will, you know, create positive
4 things and not, you know, light fires, and cause
5 problems. And I look to you for that. And I know
6 that I have your cooperation, and I thank you so
7 much for being here today, although the
8 information you've given us and frankly the
9 inspiration you've given to people here to make
10 sure that we make our voices heard at the hearing,
11 that the State is going to have, as you said,
12 everything that we gather here today is going to
13 be submitted to the State. And the State which
14 was in the room, and we made a call for them to
15 come back into the room here today. You missed
16 that whole thing, we had a little fun with that.
17 But Al, we thank you very much for being here, and
18 thank you for representing in a very effective
19 way, you know, the very good people from Damascus
20 and the other people that you help. Thanks so
21 much.

22 ALBERT APPLETON: Jim, as I said,
23 anything we can do.

24 CHAIRPERSON GENNARO: Okay, you
25 bet, you bet, you bet.

2 ALBERT APPLETON: Gentleman, - - .

3 [applause]

4 CHAIRPERSON GENNARO: Okay. And
5 now we would happy to hear the statement by the
6 Vice Chair of Board One, Catherine McVeigh Hughes,
7 right?

8 CATHERINE MCVEIGH HUGHES: [off
9 mic] Yes, thank you.

10 CHAIRPERSON GENNARO: Okay, sure,
11 you bet. And just make sure that your microphone
12 is on, and look forward to your testimony.

13 CATHERINE MCVEIGH HUGHES: I think
14 it's on.

15 CHAIRPERSON GENNARO: Okay, we got
16 it. Okay.

17 CATHERINE MCVEIGH HUGHES: Yeah,
18 thank you. I really appreciate everybody, thank
19 you very much. Good afternoon, I'm Catherine
20 McVeigh Hughes, Vice Chair of Community Board One.
21 We thank Chairman Gennaro of the New York City
22 Council Committee on Environmental Protection for
23 your tireless effort ton this hydrofracturing
24 issue. We support Resolution 1850-2009. Back in
25 May 2009, Community Board One unanimously passed a

1
2 resolution urging that New York State DEC prohibit
3 the use of hydrofrac--hydraulic fracturing in the
4 New York City Watershed. As you know, both the
5 New York State DEC and the New York City
6 Department of Environmental Protection, have a
7 mandate to protect the watershed and land
8 surrounding the watershed. The New York State DEC
9 also has a mandate to protect the groundwater and
10 surface water of New York State. We have concerns
11 that drilling or fracturing could cause problems
12 or contaminate the watershed and surface water or
13 groundwater in the areas of work. In addition, we
14 are here today to call on the Governor to extend
15 the public comment period to an addition 60 days
16 from the end of the current public comment period
17 on November 30th. There is no need to rush into
18 drilling for natural gas within the boundaries of
19 our watershed. Our country's supply of natural
20 gas is projected to be more than sufficient for
21 years and decades to come, and according to the
22 recent Federal Energy Information Administration
23 publication, "The current forecast assumes some
24 additional production curtailments as natural gas
25 inventories begin to swell toward capacity limits

1 this month." This is this month, this report came
2 out. In other words, we are already drilling more
3 gas than we can store. Community Board One also
4 has the following concerns: Cross contamination
5 between surface water and drinking water wells;
6 well permit issuance in the watershed areas;
7 septic fields in the areas permitted for drilling
8 or fracturing (we don't need septic products going
9 into a water supply either); dual roles for the
10 City and State in the protection of New York City
11 drinking water; gas leaks (we saw a recent article
12 about that in the New York Times); and monitoring
13 enforcement. We heard earlier from Manhattan
14 Borough Scott Stringer, you know, the scary record
15 of hydraulic fracturing in other states, including
16 leaks and spills, water pollution explosions and
17 water theft. Therefore, New York State DEC should
18 seriously consider requiring that a financial bond
19 be put up to cover the complete cost of water
20 filtration plant of all chemicals used to
21 establishing even a well house. So this should be
22 done before a well is built. [applause] If they
23 even go forward. This is a common practice used
24 routinely in many businesses. We are concerned
25

1
2 that shell companies could be established, and if
3 a problem were to develop, there would only be the
4 taxpayer left with the bill to remediate the
5 damages we have seen in many superfund sites. A
6 bond or escrow arrangement would protect the City
7 and upstate area, and any reputable company could
8 provide it. As the community board representing
9 lower Manhattan, which includes the World Trade
10 Center site, we were deeply concerned about the
11 safety of air and water after the terrorist attack
12 of September 11, 2001. The City has committed
13 significant resources to defend its eight million
14 residents against toxic and radioactive chemicals.
15 To allow horizontal drilling and hydraulic
16 fracturing in the Marcellus Shale within the
17 boundaries of our watershed for potential short
18 term financial gain is unconscionable. In other
19 parts of the world, countries are going to war
20 over the quality of quantity of their water
21 supply. Our water supply is one of the most
22 precious resources and we must continue to
23 vigilantly protect it. Thank you for
24 consideration and - - testimony today. [applause]

25 CHAIRPERSON GENNARO: Thank you.

2 CATHERINE MCVEIGH HUGHES: Thank
3 you very much.

4 CHAIRPERSON GENNARO: Thank you,
5 Catherine. And thank all the good folks at Board
6 One, appreciate your strong support on this issue.
7 And [pause] I'm just looking for your witness
8 slips, we have a lot of paper. And, Joe go ahead,
9 okay.

10 JOSEPH LEVINE: Okay, I know it
11 looks a little bit long, but I've slashed and
12 burned.

13 CHAIRPERSON GENNARO: Okay.

14 JOSEPH LEVINE: Including all the
15 compliments that you deserve.

16 CHAIRPERSON GENNARO: Okay [laughs]
17 okay.

18 JOSEPH LEVINE: So I don't waste
19 any time here.

20 CHAIRPERSON GENNARO: That's okay,
21 that's okay.

22 JOSEPH LEVINE: I'm cofounder and
23 chairman of NYH20, a nonprofit, grassroots
24 advocacy group based in New York City, dedicated
25 to protecting New York City's water resource--New

1
2 York's water resources from the threat posed by
3 gas extraction industry by way of hydraulic
4 fracturing. Gas drilling is an industrial
5 activity that will turn our beautiful upstate
6 landscape into a sacrificial industrial zone. As
7 we meet here today, there are far too many
8 instances of water contamination from gas drilling
9 activities across the country, and also in our own
10 backyard, within 40 miles of the Catskill/Delaware
11 Watershed. In Dimock, PA, there's been recent
12 contamination of water supplies, landscape
13 degradation, gas well explosions, livestock
14 illness and disease. Chemical spills last month
15 dumped 8,500 gallons of fracking fluid in Stevens
16 Creek, which will make its way into the
17 Susquehanna River and down to the Chesapeake Bay.
18 The Pittsburgh Municipal Water Supply System
19 serving 350,000 people was temporarily shut down
20 this past spring when drilling waste water was
21 disposed at a water treatment facility on the
22 Monongahela River. This past week, five months
23 later, reports of exceedingly high levels of total
24 dissolved solids were revealed still remaining in
25 that urban water supply. South of Pittsburgh,

1
2 along the Pennsylvania and West Virginia border,
3 the present ongoing catastrophe is the Dunkirk
4 Creek Watershed, where more than 160 species of
5 aquatic life, including unknown thousands of fish,
6 were killed in a 35 mile stretch of one of the
7 most biologically diverse streams in that region.
8 Scientists have commented that the biology of the
9 stream is dead. There are hundreds of these
10 incidents being reported from around the country,
11 where hydraulic fracturing is in progress. What
12 these events all have in common is a total denial
13 of any responsibility from the industry doing this
14 work. A recent study in Dish, Texas, performed
15 by, commissioned by Environmental Working Group,
16 confirmed that as a result of hydraulic fracturing
17 operations, unacceptably high concentrations of
18 volatile organic chemicals, hazardous air
19 pollutants, carcinogenic and neurotoxin compounds,
20 were found in ambient air samples, near
21 residential properties. McArthur Genius Award
22 winning chemist Wilma Subra reviewed this study
23 and commented that, "The chemical concentrations
24 in the air exceed both short and long term health
25 values and will have acute impacts on human

1 health." President of the Endocrine Disruption
2 Exchange, and award winning environmental health
3 expert, Dr. Theo Colborn, has said that based upon
4 the models from Colorado and other western states,
5 gas production in upstate New York will cause air
6 pollution and ozone levels in a 200 miles radius,
7 as far away from production areas as New York
8 City, that will exceed clean air federal
9 standards. After 50 years we're still trying to
10 figure out what to do with the PCPs that were
11 dumped into the Hudson in the '50s. Actually, the
12 plan is to take them and inject them underground
13 in southeastern New Mexico right now. They don't
14 mind because they already have gas drilling there
15 and they think it's the lesser evil. As bad as
16 that is, Marcellus Shale Gas drilling portends to
17 be worse. Gas drilling is the centralized
18 operation, it requires hundreds, usually thousands
19 of individual wells to make gas extraction
20 economically viable. In New York State, 50,000 to
21 100 or more wells, to 100,000 or more wells, is a
22 reasonable estimate based on the industry's
23 existing density models out west, and present New
24 York State gas regulations. A spider web of
25

1 pipelines, feeder and collecting lines, well pads,
2 waste water pits and holding ponds, roads,
3 processing plants, and substations, truck traffic
4 at the rate of a 1,000 trailer trucks per well,
5 clear cutting, 250 to a half a million--250,000 to
6 500,000 acres of land. By the way, that's
7 something like 250 million trees, for forest
8 fragmentation, wildlife and livestock impacts, and
9 of course human health. With all this, no study
10 has been done that attempts to measure the
11 cumulative impacts of drilling. Not the recently
12 released New York State SGIS, obedient to the law
13 with the exemptions in place, well permits are
14 approved one at a time and evaluated one at a
15 time. The only aspect of this process that is
16 presented an evaluated cumulatively is the money
17 to be made, potential revenues. In addition to a
18 filtration plant and associated costs, what is not
19 considered is how much money will be spent in
20 cumulative externalized costs, such as
21 reparations, clean up costs, short and long term
22 illnesses, loss of revenue from local upstate
23 economies, such as farming dairy tourism, outdoor
24 recreation, including fishing and hunting. New
25

1
2 York State estimates that to be a \$380 billion
3 industry over a 20 year period, compared to what
4 would be projected a \$22 billion industry for gas
5 over that same time. This equals very short term
6 thinking. Townships and communities upstate are
7 not equipped to handle this. Everything, this is
8 all crossed out here. Theo Colborn said that
9 there's evidence out west that the flow back
10 material has been spread out over farmland.
11 Biocomposting is how the industry sells that.
12 Here in the northeast region, as much of this
13 material as possible will be left underground by
14 seepage or injection processes. The more left
15 underground, the less to dispose by other means.
16 This has become a crucial issue, or a dilemma, how
17 to dispose of the drilling production processed
18 waste water. You did hear this before, of course,
19 but where will all this water go? There are few
20 treatment facilities capable of handling this
21 waste. The SGIS documents a list of treatment
22 facilities for disposal; however, preliminary
23 research reveals that most of the treatment plants
24 identified are not capable of handling this waste
25 water. In fact, one facility has recently turned

1
2 away waste water hauling trucks. Many scientists
3 will tell you that this water cannot be
4 effectively treated. Yet, it must be disposed of
5 somewhere. One of the facilities on the list is
6 near Hickory, Pennsylvania, the home of the first
7 Marcellus wells in Pennsylvania. Right now, in
8 Hickory, Pennsylvania, over 400 homes are on water
9 supply because of contaminated wells. This is
10 kept secret because of confidentiality agreements
11 with the energy companies. If they want water,
12 they got to sign this agreement. 400 homes that
13 right now don't have water, and nobody knows about
14 this. Friends of mine have moved off their farm
15 because of contamination and it's taken five years
16 to get a proper water testing done. And they're
17 still trying to get legal help, most attorneys
18 work for the industry. The impact of this project
19 for New York--

20 CHAIRPERSON GENNARO: I'm going to
21 have to ask you to start to--because we have about
22 35 more witnesses and--

23 JOSEPH LEVINE: Okay.

24 CHAIRPERSON GENNARO: That's a lot
25 of witnesses.

2 JOSEPH LEVINE: You bet.

3 CHAIRPERSON GENNARO: Not that I
4 don't love you, Joe, you know that.

5 JOSEPH LEVINE: This is, you did do
6 this to me last time, too.

7 CHAIRPERSON GENNARO: What's that?

8 JOSEPH LEVINE: You did this to me
9 last time, too, you know, but that's okay.

10 CHAIRPERSON GENNARO: Oh, I did it
11 to you last time?

12 JOSEPH LEVINE: I'm going to wrap
13 it up.

14 CHAIRPERSON GENNARO: I did it to
15 you last time? Okay, I'm sorry about that.

16 JOSEPH LEVINE: I'm going to wrap
17 it up, but this is--this is--

18 CHAIRPERSON GENNARO: That was the
19 other, that was the bad Jim, this is the good Jim.
20 [laughter]

21 JOSEPH LEVINE: This--this is very
22 important news.

23 CHAIRPERSON GENNARO: Right.

24 JOSEPH LEVINE: You said what could
25 we do to get the EPA engaged. Well, it turns out

1
2 that in Colorado, a grassroots organization called
3 Wild Earth was able to engage the EPA to rule
4 against the State of Colorado. And this has to
5 do, so I'll read this part, just last week Reuters
6 reported that the EPA rescinded a Bush memorandum
7 which exempted the gas and oil industry from
8 regulations requiring multiple emissions sources
9 under the Clean Air Act, to be aggregated. So
10 when we talk about all of these exemptions, there
11 are these little exemptions also. They were
12 exempt from being able to be evaluated on a
13 cumulative basis. The September 22nd ruling of the
14 EPA stated that regulators should consider
15 criteria for projects that are grouped together
16 for permitting. One of the three criteria listed
17 is whether they belong to the same industrial
18 activity. This one issue, called aggregations
19 policy, might be the single largest issue with
20 respect to any reasonable, independent analysis or
21 environmental impact study. Lots of people have
22 mentioned cumulative impacts here, and that's why.
23 This whole issue was designed to be evaluated one
24 well at a time and comply with all the
25 requirements because it was just one well at a

1
2 time, not 50,000 or 100,000 times that. This is
3 because the State EIS proposes to continue to
4 regulate on a single well basis. This is about
5 eventually tens of thousands of wells, and the
6 recently released EIS does more to appease
7 industry and its stunning lack of cumulative
8 impact or aggregation requirements. This is being
9 ignored to facilitate drilling. That's the only
10 reason. This is a recipe for disaster. New York
11 State Congressman Maurice Hinchey has noted that
12 there've been more than 1,000 documented cases of
13 contamination, so--and he's put out the FRAC Act,
14 that's supported in the Senate by Chuck Schumer.
15 And so we should support the FRAC Act in the
16 federal government, the Brennan Bill in the State
17 Legislature. And I have one more comment
18 pertaining to the Resolution of this Council, that
19 this Council were right on the issue, and it
20 really is to figure out a way to engage the entire
21 State on this issue, because what happens over the
22 entire State is what we're about here in New York
23 City. New York City thrives from the bounty from
24 upstate, and we won't be the same without it.

25 [applause]

CHAIRPERSON GENNARO: Thank you, Joe. Thank you, Joe. Okay. Thanks again, Joe, appreciate it. Josh, okay.

JOSH FOX: Hi.

CHAIRPERSON GENNARO: Josh Fox.

JOSH FOX: Thanks, James Gennaro, for this opportunity to address you and the Board, it's amazing to be here. My name is Josh Fox, I'm a filmmaker, a resident of - - , Pennsylvania. Also, my production studio is in Brooklyn. So if this happens, I'm hit on both ends. I heard about this drilling in May of 2008, and began to become obsessed with it, traveled to 30 out of 34 gas drilling states, conducting hundreds of interviews, been over to hundreds of gas drilling sites. And I'm here to supply images and stories of the people who are actually going through this drilling, across the United States. It's not a pretty picture. I'm also going to try to keep this brief, although I want to really connect up what this looks like on the ground where it's happening. You hear a lot of these words like, "migration of gas into water supplies, contamination, glycol ethers, fracking chemicals."

1
2 We don't need to speculate as to what's going to
3 happen in the New York City Watershed, or in New
4 York State at large, when--if drilling were to
5 occur. We don't need to speculate, this is
6 happening now. We can see this with our own eyes,
7 we can hear the stories, and it's amazing to me
8 how little people actually understand of what this
9 looks like. So I would like to offer this DVD and
10 other images to the Board and I think a key here
11 is in using the media. Alright, this is natural
12 gas migration into a water supply, as you can see
13 in Weld County, Colorado, in a place referred to
14 as "the Red Zone." You're going to see Mike
15 Markham here at his kitchen sink. Can you make
16 that out? [pause] So that's not a fake. You're
17 going to see several more examples of this. This
18 is the Ellsworth, Jessie and Amy Ellsworth
19 residence, also in Weld County, Colorado. And
20 we've seen reports of flammable water from
21 Pennsylvania to Arkansas to Louisiana to Texas.
22 Here's another family who can do the same thing.
23 Now this is in a very heavily gas rural area, this
24 is Rene McClure's home video from her cell phone.
25 Alright, I'm going to pause just right there. The

1 industry likes to say that this methane is
2 naturally occurring, and that people could do this
3 for decades upon decades. But all of these
4 residents will tell you that they've seen this
5 start happening since 2005, since the significant
6 upswing in hydraulic fracturing and drilling in
7 those areas. And that the idea that this is
8 naturally occurring is absurd. We know that
9 natural gas is migrating into aquifers and
10 directly into people's houses. And I'll note in
11 this video, this is raw natural gas, this is not
12 refined. This includes benzene, toluene, xylene,
13 - - organic compounds that are carcinogenic. So
14 these people are being subject to carcinogens in
15 their own home. I'll also point that in the
16 Ellsworth's example, and I have Amy and Jessie
17 Ellsworth's water test right here, if you look at
18 it, it's pretty extensive. This is both the
19 Colorado Oil and Gas Commission Review and an
20 independent test, which states that their gas,
21 there's two different, there's many kinds of
22 natural gas, but there's two basic kinds, there's
23 biogenic and thermogenic. Biogenic comes from
24 decomposing trees and animals underneath the
25

1
2 ground, it's relatively shallow. Thermogenic
3 contains some of the heavier elements like propane
4 and butane, and that comes only from the deeper
5 layers. So, this shows, with the Colorado Oil and
6 Gas Conservation Commission's own standards that
7 their gas is thermogenic, which is to say it could
8 only be coming from the deeper shale layers, and
9 that is in this report. So you cannot say, even
10 as Al Appleton mentioned, that there is, there is
11 no proof. There is evidence, and it's hard to say
12 how proof would come about. Here I have a video,
13 home video from Divide Creek. Divide Creek
14 suffered a blow out in 2004, and the bubbles that
15 you see in the creek here are natural gas coming
16 up through it. That's not stream water, that's a
17 bubbling natural gas situation. And you'll see
18 residents here light the creek on fire. You can
19 see that right there, right? This was a blow out
20 incident, and kind of knew that they had a well
21 casing failure, and they went ahead and fracked
22 the well, anyway. There's no--this was one of the
23 biggest fines in Colorado history, \$371,000. Now
24 you can see that they can just have natural gas
25 coming straight out of the creek there. Alright,

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25

I'm going to move on to water contamination that's not flammable. I have examples from Boonville, Arkansas. I'm just going to let them play. You'll be able to see rainbow discoloration--

CHAIRPERSON GENNARO: How long is the presentation?

JOSH FOX: --oily red--what's that?

CHAIRPERSON GENNARO: How long is the presentation?

JOSH FOX: It's another couple minutes.

CHAIRPERSON GENNARO: Okay. I just--

JOSH FOX: But, see?

CHAIRPERSON GENNARO: Okay, I just, after this panel, we're going to move onto the clock, I just, I--

JOSH FOX: That's fine.

CHAIRPERSON GENNARO: I apologize, just, there's just no, there's no way around it.

JOSH FOX: Well, I think that it's important to take a look at the way these--

CHAIRPERSON GENNARO: Everything's-

-

2 JOSH FOX: --things actually play
3 out.

4 CHAIRPERSON GENNARO: I, I'm--what
5 happens is that people ultimately leave because
6 they don't get a chance to--

7 JOSH FOX: Let me just con--maybe
8 I'll just continue. This is discoloration of the
9 water inside the, a local stream, just downstream
10 from the natural gas well. And when you're
11 talking here about the EPA, you can see the
12 bubbles of discoloration and oil and other--
13 actually nobody really know what that stuff is,
14 but they know that it's downstream from a flow
15 back pond. To go ahead, to Pavilion, Wyoming, and
16 I want to present water tests from Pavilion,
17 Wyoming, from the EPA. Basically--I can fast
18 forward this a little bit here--the EPA, I went
19 and interviewed Westin Wilson, who is a Region
20 Eight EPA whistleblower. The EPA's been off the
21 job since 2001. Their peer review panel showed a
22 conflict of interest of five of seven members.
23 And then the Safe Drinking Water Act exemptions
24 went through and basically there is no science.
25 Westin Wilson is quoted in the film as saying,

1
2 "After that point, all science, all data,
3 everything stopped." Until this spring, when they
4 went to Pavilion, Wyoming. See these guys, Louis
5 Meeks and John Fenton, and you can see Louis
6 Meeks's water well here, with pieces of oil on the
7 surface. And then you'll see him take a blowtorch
8 to his well, and you can actually see him
9 lighting, creating a kind of liquid plastic, his
10 well water had glycol ethers in them. So this is
11 the very first time the EPA's actually looked into
12 this kind of contamination of fracking fluids in a
13 person's water well. And I have those EPS reports
14 here, also, I'd like to submit them. You can see
15 him burning off a substance on the surface of his
16 water--just collects there. [pause] So, I wanted
17 to just show one more video here, which is the
18 EPA's own video, which shows condensate tanks. I
19 would like to submit the Al Armendariz's
20 [phonetic] air quality report. And we talked a
21 little bit about binding New York State to New
22 York City. In Sullivan County alone, we're
23 talking about a proposal for 10,000 wells. Now,
24 Sullivan County's not in the New York City
25 watershed. In Dallas/Fort Worth, Al Armendariz's

1
2 air study shows that the 7,700 wells in the
3 Dallas/Fort Worth area contribute more air
4 pollution, or an equal amount of air pollution to
5 all the cars and trucks in all of the Dallas/Fort
6 Worth metroplex. So if you're drilling 7,700
7 wells, and the estimates for up there are much
8 greater, you're creating an urban air pollution
9 situation on the level of the fourth largest city
10 in America. That's going to come down. That's
11 our air shed, we need to, this is the
12 environmental board, we also need to be defining
13 our air shed, and talking about how this is going
14 to create an unprecedented air pollution
15 situation. One of the ways that that happens,
16 here we'll see, you'll see a drill rig in
17 operation. And you can see here, this is
18 unmonitored diesel exhaust. These rigs can go
19 through 800 gallons of diesel a day. So just to
20 drill, you're talking about a severe situation.
21 This is a condensate tank. It's right next to a
22 school. Condensate tanks look like this in
23 regular, to the naked eye, but when you look at
24 them with an infrared camera, they're billowing
25 these huge plumes of volatile organic compounds

1
2 that are coming right off the top there. That's
3 benzene, toluene, methane, a whole host of
4 volatile organics. Methane is 24 times the
5 carbon, the greenhouse gas than carbon dioxide.
6 So you're seeing this directly going into the air,
7 which is why in the town of Dish, you have such a
8 severe air pollution situation. Because they have
9 pipelines that also do this kind of venting, they
10 have compressor stations that also do this kind of
11 venting, and condensate tanks. Just a list here
12 of what's going on in Dish: 55 times the health
13 standard of benzene in the air; chemicals
14 including benzene, dimethyl disulphide, methyl
15 ethyl disulfide, ethyl methyl ethyl disulfide,
16 trimethyl benzene, diethyl benzene, methyl methyl
17 ethyl benzene, tetramethyl benzene, and the list
18 goes on.

19 CHAIRPERSON GENNARO: Point taken.

20 Point taken.

21 JOSH FOX: Okay, so this is what's
22 happening in the air. And as we also mentioned,
23 these things do explode. There's a couple of
24 videos of the fire, this is a fire from Colorado.
25 Here's one that I took myself in Central

1
2 Pennsylvania where a gas storage facility
3 exploded. You can see this from space, it took
4 them three weeks to put it out. Also, evaporation
5 sprayers and pits will blow the flow back water
6 into the air, in hopes that it will evaporate
7 faster. That's seriously insane, 'cause that's
8 all of the volatile organics and the fracking
9 fluids just filtering out into the air. And if
10 that wasn't bad enough, I have video here of a
11 truck, and this is the last one, with its valve
12 cracked open. You know the problem of water
13 disposal. This is a familiar practice all over.
14 I've heard complaints about this, we finally
15 caught them here on this video, from, like I said,
16 through every state that I was in--Arkansas,
17 Louisiana, Texas, New Mexico, Colorado, Wyoming--
18 you can see here the trail of fluid that they're
19 leaving behind on the road. That's waste water
20 that's supposed to be treated, cracked from a
21 valve at the back of a truck. With 17 inspectors
22 in New York State, don't expect the regulation
23 situation, the monitoring situation to be any
24 better than a guy like me with a video camera
25 chasing around a truck. You're talking about 400

1
2 truckloads of waste water per well. Okay? By the
3 New York State's own GEIS, 1,150 truck trips per
4 well completion. 600 of those truck trips are
5 well water going in, and 200-400 are water coming
6 out. That kind of water, and it's going on roads
7 all over Colorado and Pennsylvania. Again, I'd
8 like to submit all of this evidence, which is not
9 anecdotal, this is actual evidence, water tests
10 from all over the country, as well as the pictures
11 that go along with it, to the Board, and say that
12 hopefully there's some way that we could work
13 together to increase the potential of media
14 awareness. When people, we had 100,000 people
15 last week watch that guy light his water on fire,
16 at waterunderattack.com. Hopefully, and we're
17 going to be creating a PSA for Scott Stringer.
18 So, we'd love to work with you. Thank you so
19 much.

20 CHAIRPERSON GENNARO: Yeah, we
21 would love to, it's very, very difficult for us to
22 get any kind of interest in this issue. I don't
23 know. I'll talk to my press guy Brad. I mean, do
24 we have, could we get any--any reporters, could we
25 get any reporters to come to this hearing? Okay,

1
2 okay. It just, it's--It's difficult. Maybe I'll
3 have to light my own hair on fire, you know.

4 [laughter] Which--my brother, who went bald 30
5 years ago, could never do, he'd at least, he would
6 at least say, "You have hair to light up," you
7 know. Josh, thank you so much for your tireless
8 efforts [applause] going across the country. And
9 absolutely, Josh, let's stay in touch and try to
10 do what we can to get some of your good work out.
11 Okay. Thank you.

12 JOSH FOX: Thanks very much.

13 CHAIRPERSON GENNARO: Thank you,
14 Josh. And the two we have, also, Michael Lebron
15 and Pat Carullo. I'm not sure which is which.
16 Okay. Michael, okay, so why don't we hear from
17 you, you're next. And just state your name for
18 the record and, you know, speak directly into the
19 microphone.

20 MICHAEL LEBRON: Chairman Gennaro
21 and members of the Committee, good afternoon, and
22 thank you for this opportunity to speak, and again
23 thank you for your leadership on this issue. I'm
24 a member of New Yorkers for Sustainable Energy
25 Solutions Statewide, and I'm also a member of

1
2 Damascus Citizens, as well. As you know, New York
3 State has had and will continue to have some level
4 of natural gas energy extraction. Sadly, oil and
5 gas developers like to refer to New York as a
6 cheap date, mainly because New York almost alone
7 among the oil and gas states has no severance tax.
8 Such a tax paid on the value of the resource
9 removed reflects the reality that natural
10 resources, once removed, are gone, often leaving a
11 mess behind. And it reflects the concept that
12 extractive industries should pay its fair and full
13 share of costs. Whether or not there's gas
14 drilling in the City's watershed, and the Delaware
15 River Basin that it is inextricably linked to, any
16 natural gas extraction must pay its due bills at
17 the point of extraction occurs, because this is
18 the point at which environmental and societal
19 costs are--also are incurred, not simply the
20 labor, technology and capital loss. Simply put,
21 we argue that New York City should not be paying
22 through tax revenue to the State's general fund
23 for costs of energy extraction elsewhere in the
24 State. That is the case now. The Department of
25 Environmental Conservation, including the minerals

1
2 division, is funded almost completely through
3 general revenue. Proposals to increase permitting
4 fees through legislation, although undoubtedly
5 well intended, will quickly fall prey, as they
6 always do, to inflationary price increases. You
7 can easily see this in current permit fees which
8 cover only a very small fraction of real
9 administrative enforcement costs. What is needed
10 is a clear revenue source that adjusts to evolving
11 costs, and is directed into a lock box, if I can
12 use that overused phrase, for DEC administration,
13 enforcement, and an adequate Superfund type
14 resource, and be able to respond to what we know
15 with absolute certainty will be the inevitable
16 physical or financial catastrophes. Speaking of
17 catastrophes, and by way of example, the 2002
18 Comptroller's Report showed the economic cost to a
19 City from the attacks on 9/11, that total between
20 \$83 billion and \$95 billion. Federal officials
21 have pledged \$21.4 billion in total federal
22 assistance to this City, but only \$2.7 billion has
23 so far been released. Another example closer to
24 this issue, this past year, the citizens of
25 Cohecton, which is where I also have a property

1
2 upstate, had to pick up the \$1.2 million tab for
3 road repair after the completion of the Millennium
4 Pipeline, which comes to about \$900 for each of
5 its 1,328 citizens. The most tragic example can
6 be found in the town of Dimock. - - said there
7 was little to worry about, that remedial
8 procedures were in place, but did not say there
9 was no budget for meaningful enforcement with
10 regard to the 8,500 gallon toxic spills at the
11 well site in Dimmick, excuse me. They were even
12 heard to say that they had to negotiate with the
13 polluter. There may be some truth to that as a
14 penalty at \$56,650 comes out to \$6.74 for each
15 gallon spilled. In closing, our points are
16 simple. We look to you first and foremost to
17 protect our most precious natural resource, our
18 water, and to assure that we don't foot the bill
19 if and when it becomes compromised. Thank you.

20 CHAIRPERSON GENNARO: Thank you.

21 And thank you, Michael, appreciate your being
22 here. [applause] Not the first time you've
23 testified on this issue. I thank you for your
24 ongoing efforts. Pat Carullo. Pat?

25 PAT CARULLO: Well, first I'd like

1
2 to thank you, Councilman Gennaro, and Samara
3 Swanson and everyone else on your staff, for the
4 absolutely important work you're doing, and the
5 leadership that you're providing here. I'd like
6 to give to you some very, very simple, sort of
7 folksy details, which will, and should serve, as
8 intelligence for you. You mentioned earlier, or
9 someone here mentioned that Chesapeake just two or
10 three days ago withdrew their application from the
11 Delaware River Basic Commission. And as you know,
12 the Greater Upper Delaware Watershed includes much
13 of the New York City Watershed. We were very,
14 very sort of even intrigued by the language that
15 Chesapeake used. They are there operating in the
16 shadows, in our communities. They are using
17 secret agreements, as has been said once or twice
18 here today, where the industry has fundamentally,
19 de facto federal deregulation. They're exempt
20 from every, as you know, important environmental
21 law. And it was interesting the language that
22 they used, they withdrew their application from
23 the Delaware River Basin Commission and used the
24 following language, "We are unwilling to interact
25 with the Delaware River Basin Commission regarding

1
2 hearings, and we do not wish to undertake in
3 public debate about this issue." As I've said
4 before in your chambers, we are fighting for our
5 life. In our community, we understand that. Here
6 today, we've heard machinations and comments from
7 public officials and various groups, some of them
8 very strong, passionate, and we welcome that.
9 We're out there on the front lines, we will file a
10 citizens lawsuit at what we're [applause] and we
11 would have done so three weeks ago if the Delaware
12 River Basin would've acted on the water withdrawal
13 request from Chesapeake, because they are
14 literally deploying in our community. Our county
15 is almost half leased, that is to say these
16 industry companies are in control of almost--

17 CHAIRPERSON GENNARO: What county
18 is that?

19 PAT CARULLO: This is Wayne County,
20 170,000 acres are leased. The town of Hancock,
21 Columbia University just released a report that
22 the town of Hancock, and there it is and should be
23 helpful to you, Councilman, the town of Hancock
24 some eight months back was 25 percent controlled
25 by industry. And again, I'll repeat, we're

1 fighting for our life. We've retained the very
2 best legal counsel, we've retained the services of
3 folks like Al Appleton and others. We'll soon be,
4 and this is an official invitation to you, to
5 speak at Carnegie Hall. We'll soon be renting
6 Carnegie Hall for a fundraiser for these efforts.
7 But again, we will soon be filing litigation in
8 what it is we feel is the most precious resource
9 that we have. So, this is to provide intelligence
10 to you that we are on the ground, and we mean to
11 act. In taking that action, we hope that it would
12 not only support your work, work in New York
13 State, but certainly work in Pennsylvania. Our
14 Governor's number one public servant, as a matter
15 of fact, the person in Pennsylvania that was given
16 the responsibility to oversee the industry, two
17 weeks ago went to work for the industry. So, this
18 is the kind of thing that we're facing in the
19 watershed proper. Once again, in a matter of
20 weeks, there'll be a gun in the watershed,
21 litigation, that will in a sense bring these
22 issues onto the record. As you are here doing
23 today, getting this onto the record is critical,
24 and we'll be really with that goal in mind,
25

1
2 bringing experts, testimony, evidence, science and
3 data into the courts, getting that on the record,
4 so it's available to everyone in this important
5 work we're engaged in. Thank you again, and we
6 much appreciate your Council.

7 CHAIRPERSON GENNARO: Thank you,
8 thank you. [applause] And just in terms of like
9 the, you know, philosophical orbit that I'm in,
10 I'm--I just take it as a given that any private
11 entity, whether it's a gas company, oil company or
12 whatever it is, it's going to, you know, do
13 whatever it can legally get away with. And I'm
14 always, and my focus is always on the government
15 regulators who are supposed to be there to be a,
16 you know, check on the free market. And I think
17 you can count on people in this, you know, whether
18 it be gas or oil or whatever, doing whatever they
19 can, you know, legally do, but it's up for the
20 government, it's up to, you know, me, us, what--
21 you know, more so the people at the state level
22 and at the federal level, to do their jobs, to
23 make sure that, you know, we are protected whether
24 it's, you know, oil and mineral or gas drilling,
25 or any other kind of activity that you can

1
2 conceive of. And that's what I think that's,
3 that's where the State of New York is falling
4 down, and that's what we have to do. I mean, I
5 think it's good to be vigilant against the
6 companies themselves, make sure that they're
7 staying, you know, within the framework that they,
8 where they are, you know, legally supposed to be.
9 And that's always good. But I always start at the
10 regulator themselves, not, you know, create some
11 sort of structure, some sort of paradigm whereby
12 the public is not going to be protected. You
13 know, putting out some regulations, this and that,
14 but having, you know, no enforcement and, you
15 know, having the kind of cozy relationship with
16 business that they really shouldn't have. So, I
17 always focus on the people who have, you know,
18 supposedly dedicated themselves to looking out for
19 the public interest, because by definition that's
20 not what the oil companies, what the gas companies
21 like the, that's not, that's not in their mission
22 statement. They're, what's in their mission
23 statement is to turn their, you know, time and
24 talent and capital into huge profits. That's what
25 they're supposed to do. And that's what they will

do, to the extent that they can get away with it.

PAT CARULLO: Well, you'll hear--
You'll hear the industry over and over again call
all of this evidence, all of these cases, the
thousands that Congressman Hinchey and others have
referred to.

CHAIRPERSON GENNARO: Right.

PAT CARULLO: They'll call this
anecdotal. Well, it's going to be our role to
make sure that that anecdotal, with the help of
Counsel such as Richard Lippes, the Love Canal
lawyer--

CHAIRPERSON GENNARO: Right.

PAT CARULLO: --and Al Appleton and
others--

CHAIRPERSON GENNARO: Yep.

PAT CARULLO: --to establish a
record in a federal court of law, that you all can
use in your important work.

CHAIRPERSON GENNARO: Hear, hear.

PAT CARULLO: That's our role,
because we can cut to the chase and just get the
job done as quickly as possible, and that's what
our work will be in these months ahead. So thank

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25

you.

CHAIRPERSON GENNARO: Thank you.

JOSH FOX: Could I just add also, just the suffering around the country is immense. And everywhere I went I heard from people, "Take this stuff, bring it back to New York, and get them involved." Because that's the only way we're going to get any relief. So, there are people across the country that are depending on this board and others in this state--

CHAIRPERSON GENNARO: Right.

JOSH FOX: --to actually restore some sanity to their lives, because they've been suffering with this kind of drilling and no one is paying attention to them, all across America. So there's a tremendous responsibility that New York City has to take this out of our watershed and set a precedent.

CHAIRPERSON GENNARO: We are.

We're trying, we're trying to get the media interested, and I was just, even on the way over here, I'm, even on the way over here, I'm getting calls from, you know, national news services saying, like, "Well, what's your problem with this

1 whole thing?" You know, this is national new
2 services talking to me about, "Well, we've had
3 conversations with the industry, and they say it's
4 great, and they say it's green, and Mr. Chairman,
5 like, what's your problem?" And I'm like, "You're
6 a news service?" You know, it's just, you know,
7 go out there and see what's going on. Don't get
8 your, you know, all of your information from the
9 gas companies. And so, lord knows I'm trying.
10 Anyway, thank you all, but as I said, I get, I
11 try, but I get paid for trying. You people
12 aren't, not only are you not getting paid to be
13 out there trying, you're raising money, you're
14 giving up your time and talent, for a very, very
15 noble cause, and I thank you. I thank you. And
16 our next [applause] [off mic comments] [pause]
17 Okay, the next panel, Ann Warner Arlen, and--hold
18 on just a second. [pause] [off mic comments]
19 Okay? Thanks, alright. Great, okay, bye.
20 [pause] Okay. Ann Warner Arlen, Wes Gillingham,
21 Bernard Saffronsky, it looks like, Susan Dey of
22 Catskill Mountainkeeper. [off mic comments,
23 pause] Okay, thank you. [pause] Oh, you want me
24 to add this - - . [off mic comment, "Yeah."]
25

2 Okay. And Matt Wallach, we're adding to this
3 panel, as well. [off mic comment, "Thank you."]
4 Sure. Get these guys situated and then--get them
5 sworn in.

6 [pause]

7 COUNSEL TO THE COMMITTEE: Can you
8 please raise your right hands. Do you swear or
9 affirm to tell the truth, the whole truth and
10 nothing but the truth today?

11 [pause]

12 CHAIRPERSON GENNARO: This is the
13 panel, this is the--[pause] Okay. Let's get,
14 we're going to be, as I said, just to kind of,
15 just to get through, we're going to be moving to
16 the clock. And I'll have a first witness as Ann
17 Warner Arlen. That Ann? Okay. Ann, please state
18 your name for the record.

19 ANN WARNER ARLEN: Is this,
20 testing, testing.

21 CHAIRPERSON GENNARO: Yep. You're-

22 -

23 ANN WARNER ARLEN: Okay.

24 CHAIRPERSON GENNARO: You're good.

25 ANN WARNER ARLEN: Yes, my name is

1
2 Ann Arlen, I'm a public member of the Environment
3 Committee of Community Board Two, and was its
4 Chair for 14 years. During which time we dealt
5 heavily with the drinking water issue, so when the
6 proposal to use all of these fracking fluids in
7 the watershed came up, it was totally surreal, it
8 was unbelievable. We have been working on this
9 issue ever since we found out about that last
10 February. Chairman Gennaro, your leadership, your
11 courage, your unflagging leadership, has meant
12 everything to us. And your appearance at our
13 public hearing on March 9th, you were very, very
14 convincing, we wound up kind of maybe you might
15 say overshooting Reso 1850 in that we came out
16 with a Resolution calling for a ban in all of New
17 York State, because when we saw what the effects
18 were from Josh's film, among other things, I mean,
19 we couldn't conceivably say, "Well, we don't want
20 this in our drinking water, but it's okay for
21 everybody else's." I just want to say that the
22 idea that we would have a 60 day comment period,
23 and have hearings in only this borough, just is
24 not a review process. And you, when you look at
25 the 800 pages, you can see that an effort was

1
2 made, at any rate, there were a lot of facts in
3 there, it's not like some of the EISs that we see
4 here in New York, I'm ashamed to say, where I
5 mean, like the Parks Department didn't even
6 mention trees until it got to the end of their EIS
7 on Washington Square Park. They appear to have
8 done a painstaking job, even if what they were
9 trying to do was to convince us that there was
10 nothing wrong with it. And then they hold a
11 public comment period that's a joke. So, we
12 called for 120 days comment period, and comments
13 and a review in all five boroughs, public
14 hearings. Thank you.

15 CHAIRPERSON GENNARO: Thank you,
16 thank you very much.

17 ANN WARNER ARLEN: And I'm turning
18 in a written version of this.

19 CHAIRPERSON GENNARO: Thank you.

20 ANN WARNER ARLEN: With our Reso.

21 CHAIRPERSON GENNARO: Thank you for
22 that. It was a pleasure to come and visit with
23 you and I was very warmly received there, and I--

24 ANN WARNER ARLEN: Yes, - -

25 CHAIRPERSON GENNARO: I appreciate

1
2 that very much. Great.

3 ANN WARNER ARLEN: We thank you for
4 coming.

5 CHAIRPERSON GENNARO: You bet. Mr.
6 Wes Gillingham of Catskill Mountainkeeper.

7 WES GILLINGHAM: Is that on?

8 CHAIRPERSON GENNARO: Yes.

9 WES GILLINGHAM: Thank you, members
10 of this Council, for inviting me here to testify.
11 My name's Wes Gillingham, I'm the Program Director
12 for Catskill Mountainkeeper. Our mission is to
13 protect the ecological integrity of the Catskill
14 Mountain Range and the quality of life for those
15 that live here. I'm going to add here the fact
16 that I'm a resident of Sullivan County, New York;
17 I live in the Catskills. I'm outside of the Upper
18 Delaware Scenic and Recreational Corridor, I'm
19 outside of New York City's watershed, and I'm
20 outside of the Catskill Park, three potential
21 areas that if an agency had the intelligence,
22 would have already banned drilling in this
23 document that we just received. But we have not.
24 But even if they had done that, I'm going to be
25 personally, along with a lot of other members of

1 my community, dealing with impacts beyond that.
2
3 And normally, we operate in the Catskills. Our
4 objective is to protect the Catskills, but this
5 particular issue has taken me all across the State
6 of New York, dealing with regional groups from
7 around the State, even to the point where I was in
8 D.C. working with regional groups from Wyoming,
9 Louisiana, Colorado. This is a national issue.
10 It isn't just about New York City's watershed,
11 it's about how we produce our energy in this
12 country, and the impacts of that process. It was
13 about a year ago today that I testified before the
14 New York State Assembly as we started the process
15 of looking, taking a closer look at unconventional
16 gas development. And I'm just going to read
17 something that I put in that statement last year.
18 One of the first things we learned through this
19 process was New York State has been functioning
20 with a generic environmental impact statement that
21 is an outdated document. Not only is it missing
22 specific regulations for technologies that have
23 been used by the industry for ten or 15 years, but
24 there are blatantly incorrect statements, such as,
25 this is a quote, "Cumulative review is impractical

1
2 and unnecessary when considering most oil and gas
3 drilling, because of the independent nature of
4 those wells." Now maybe this was true back in
5 1988 when they did the original generic
6 environmental impact statement, but anybody that's
7 done any research into the issue realizes today
8 that that's not the case. Now, I had a meeting,
9 and through this process, you know, Mountainkeeper
10 was one of the handful of groups, regional groups
11 and national groups, that were kind of doing the
12 Paul Revere ride on gas drilling. And one of the
13 first things that happened is I went up with some
14 other folks to Albany, Assembly Gunther from our
15 region got a meeting with the entire staff of the
16 Mineral Resources Division. And I brought all
17 these maps about how special the Catskills was,
18 one of the, one of ten places in the eastern half
19 of the U.S. that has wilderness over 50,000 acres.
20 I had all these great maps, and I talked about the
21 fact that their document didn't have cumulative
22 impact review. And the statement I got from the
23 mineral resources division, "Well, we got to wait
24 and see what's happened. We're not looking at
25 cumulative impact." Well, since that point, we

1
2 went through the, to, we got the Governor to ask
3 for supplemental, we've gone, it's taken them a
4 year to do this 800 page document. And they're
5 still on that same page. They took a little bit
6 longer than a few sentences to say it, a total of
7 five pages. But this is alarming. Other people
8 have already spoke to this issue, so I won't spend
9 a lot of time with that. But it's just plain
10 silly. That's a legal term, I think. [laughter]
11 I mean, this is really unacceptable to say that
12 you cannot foresee where the development will take
13 place. The industry has land, they have lease,
14 they have a base of leases that they're working
15 with. They have an idea of what they're going to
16 do to the landscape. This the quote out of the
17 document that we just received: "The timing, rate
18 and pattern of development on either a statewide
19 or local basis are very difficult to accurately
20 predict, as detailed ..." and it--I mean, that's a
21 ridiculous statement. And there's so many aspects
22 to the cumulative review that are easy to do,
23 other agencies do it all the time. Cumulative air
24 impacts, somebody mentioned earlier today, "Oh,
25 I'm glad we're talking about water today, we're

1 usually talking about air impacts." Doing a
2 regional ozone assessment is a normal thing, lots
3 of state agencies do that across the country.
4 They're not even thinking about doing that in this
5 case. That's ridiculous. And I won't spend a lot
6 of time with air quality, I think Josh Fox did a
7 really good job of portraying the issues there,
8 and the stuff coming out of Texas. This is, you
9 know, the timing and rate of this development, as
10 you look through the history of shale plays across
11 the country, it's really phenomenal. One of the
12 famous statements that I've now heard Pete Grannis
13 say I think 15 times, is how the new regulations
14 in the State of New York encourage larger spacing
15 units, so there's less impact; doing multiple
16 wells on a well pad, and reducing the impact
17 because it's on a 640 acre spacing unit. The fact
18 remains is that the law in New York State, it
19 still allow for 40 acre spacing units, and if you
20 look at the history of shale development across
21 the United States, they do the 640 acre spacing
22 unit, then they do a 300 acre spacing unit, then
23 they do 100 acre spacing unit, down to 20 acres in
24 Texas. That wouldn't happen here, but a 40 acre
25

1
2 spacing unit could happen in this country. The
3 draft supplement makes the claim that there's no
4 more development than was anticipated in 1992,
5 under that--and they refer to Chautauqua County
6 and the amount of wells in Chautauqua County. It
7 refers to 2,000 wells in Chautauqua County over a
8 ten year period. Chautauqua County is a flat,
9 rural county, with fields and roads. If you take
10 4,000 wells and position that over Delaware County
11 and Sullivan County, you're going to have a vastly
12 different impact than you have in Chautauqua
13 County. You can't take a cardboard stamp from
14 someplace else in the state and say that applies
15 to the whole rest of the United States, or the
16 whole rest of the State of New York, that's
17 ridiculous. That just speaks to the failure of
18 the DEC to take these concerns expressed
19 throughout this process, to properly integrate
20 them into a regulator program that would mitigate
21 the serious ramifications of this development.
22 They are only considering onsite impacts and not
23 the cumulative review. Now, I'm going to skip
24 most of the center. I brought these pictures
25 'cause--

2 CHAIRPERSON GENNARO: Yeah, the
3 pictures will have to be the end of the
4 presentation.

5 WES GILLINGHAM: Oh, we'll save 'em
6 to the end, okay.

7 CHAIRPERSON GENNARO: Okay. Yeah,
8 I mean, I, we, 'cause --

9 WES GILLINGHAM: Yep, that's fine.

10 CHAIRPERSON GENNARO: --I'm just
11 trying to, just trying to keep going, there's
12 still--

13 WES GILLINGHAM: I'll skip what I
14 said about waste water, because I think that's
15 been well covered as well today.

16 CHAIRPERSON GENNARO: Mhm.

17 WES GILLINGHAM: The one thing that
18 I would add about the situation at the Ross Well,
19 where they took the 50,000 gallons of chemicals,
20 trucked it to Watertown, turned around and brought
21 it back. Does anybody here remember those garbage
22 barges? [off mic comments]

23 CHAIRPERSON GENNARO: Oh, yeah.

24 WES GILLINGHAM: I mean, I think
25 we're setting that, we're setting that situation

1
2 up here. Let's be realistic and acknowledge the
3 growing concern nationally with these new
4 technologies. We have plenty of history with
5 these new technologies that they come back to bite
6 us. People have already mentioned PCBs today, and
7 the precautionary principle. Those are important
8 things to remember. Do we really want this to be
9 part of our legacy, to let this progress go
10 forward without absolutely every possible
11 protection put in place, without protection of
12 special areas, without complete investigation into
13 the failures of the industry to protect
14 communities. It's extremely shortsighted. I'll
15 finish by asking this Committee to do one big
16 thing, and that is--

17 CHAIRPERSON GENNARO: Well, we ask
18 the questions here. [laughter] Yeah.

19 WES GILLINGHAM: Okay. I--I'm
20 going to say it anyway, I will finish by asking
21 this Committee to do one thing, and to remember
22 that this, today there was a lot of discussion
23 about New York City's drinking water, which is, I
24 mean, it's alarming that we're even here talking
25 about this. And, but--these effects, this issue

1 specifically asks, I'm asking you to continue past
2 the point of where the DEC, the Governor, the
3 industry, or the EPA bans gas drilling in the New
4 York City watershed. You've been relying on our
5 communities in the Catskills for your clean water.
6 And we need your help. We're going to need your
7 help beyond that ban in the watershed. The
8 residents of the Catskills will get all the
9 impacts, not just the water impacts. If you're
10 successful at keeping out, keeping it out of the
11 watershed, please don't just put yourself, pat
12 yourself on the back and go home. The long term
13 industrialization in the Catskills and the
14 Southern Tier will have multiple complex
15 ramifications for the people of New York City, New
16 York State and the eastern United States. The
17 Alleghany Plateau, which is basically the same
18 line as the Marcellus Shale, we're talking about
19 the backbone of all the last wild places in the
20 east, and also the major farming, agricultural
21 producing regions in the east, as well. And
22 there's, I was doing a panel up in Rochester just
23 the other night, and there was a fellow there from
24 the Chemung County Farm Bureau. And we were
25

1 talking about New York City's water, and he
2 pointed out to the fact that New York State is the
3 number three milk producing state in the country,
4 and where we're proposing to do this development,
5 and where all these questions about groundwater
6 contamination and--they're all coming from places
7 where your milk is produced. So, we need this
8 Council to help force the DEC back to the drawing
9 board. This is a completely inaccurate document,
10 we need to come up with serious regulations, and
11 we need the Council to be vigilant beyond the
12 watershed. And we need to stop sacrificing energy
13 producing regions of this country, so that we can
14 turn on a light switch. We need to evaluate where
15 our energy is coming from, whether it's
16 mountaintop removal in West Virginia, or gas in
17 New York City's watershed. This is not a
18 transition. I really question that not being a
19 transition fuel, and just another addiction to our
20 fossil fuel.

22 CHAIRPERSON GENNARO: Okay, well
23 let me--

24 WES GILLINGHAM: And the two things
25 that I want to point out--

2 CHAIRPERSON GENNARO: Yeah, but
3 then we really have to--

4 WES GILLINGHAM: Well, I'm just
5 going to show you the picture and--

6 CHAIRPERSON GENNARO: --we really
7 have to move on. Okay, sure.

8 WES GILLINGHAM: --and say "See
9 you" with a smile. So, this first photograph is
10 of a--this is--

11 CHAIRPERSON GENNARO: You have to
12 talk into the microphone, otherwise it won't be
13 recorded on the record.

14 WES GILLINGHAM: Okay, I will cover
15 my comments.

16 CHAIRPERSON GENNARO: Yeah, you can
17 pick up the microphone, you can pick it, it's--

18 WES GILLINGHAM: Okay, this first
19 photograph, the, all these pictures are from
20 Dimock, Pennsylvania, 40 miles from Hancock. This
21 is very close to the, or this is in, very close to
22 the Delaware River Basin. And what this photo has
23 here, and if you look closely at where the water,
24 this is from the drilling operation. And if you
25 look at the dirt pile here, beyond the slurry

1 pond, you will see that this, the drilling fluid
2 is splashing pas the pit. Now, if I hadn't flown
3 over that particular day and taken that picture,
4 this landowner would not know that his soil was
5 being contaminated, as this was happening. I
6 mentioned milk production. That photograph was
7 taken from this well pad here, here's the dairy
8 barn over here, here's the drilling operation
9 where they were, where they'd just finished
10 fracking. And then this is the new well pad going
11 in here. Now this, this guy sold his cows,
12 probably 'cause he got the lump sum payment. It's
13 not an operation, but that gives you the scale,
14 again, of cumulative impacts on the landscape.
15 And here's another photo of well pads, access
16 roads. And one of the things that really amazed
17 me when I flew over Dimock, I've, you know, I sat
18 through the entire day today and heard a lot of
19 things said over and over again. I've been
20 hearing a lot of these same concerns for two
21 years. It wasn't until I flew over Dimock that I
22 realized that whole area, there's new gravel pits
23 everywhere. They're putting gravel--we all talk
24 about all the miles and miles of access roads.
25

1
2 Well, all those access roads are being built from
3 the gravel banks that they're putting in all
4 across people's property. And this also shows you
5 the feeder pipeline that cuts across the
6 landscape, and again, there's your cumulative
7 impacts right there. Again, thank you for--

8 CHAIRPERSON GENNARO: Thank you.

9 WES GILLINGHAM: --holding this
10 hearing, and--

11 CHAIRPERSON GENNARO: And--let me
12 just respond about, you know, what I want to do,
13 or what we would like to do as a Council here to,
14 you know, go beyond our jurisdiction a little bit.
15 Certainly, as Chairman of the Committee on
16 Environmental Protection, my natural jurisdiction
17 is the five boroughs of New York City, and where
18 the five boroughs of New York City gets its water
19 from. You know, outside that, I'm happy, you
20 know, to work with you and with Al Appleton, and
21 others to convey the appropriate message and
22 sentiment and to communicate to the State what
23 needs to be communicated on behalf of areas
24 outside New York City's watershed. I have to be
25 mindful, and I think also respectful, of the areas

1
2 outside New York City's watershed, that these
3 places do have representatives. I am not one of
4 them. So, areas outside New York City's
5 watershed, but within New York State, they have
6 county legislatures, they have county executives,
7 they have members of the assembly, they have state
8 senators, they have congress people, they have
9 U.S. senators, all of whom are, you know, elected
10 to speak for them. However, that fact
11 notwithstanding, I have no problem using my, you
12 know, bully pulpit here as the Chairman of this
13 Committee, which represents New York City, and
14 where we get our water from, from doing and saying
15 things that are appropriate and, you know,
16 supportive of people throughout the state that are
17 facing what we're facing here in New York City.
18 So, you have my pledge to ultimately work with you
19 and Al Appleton and others to draft a Resolution
20 so that it's, so that I, so that we, as a body
21 here at the Council, sort of, you know, clearly
22 communicate what needs to be communicated on
23 behalf of people throughout the State. And also,
24 I need people to be mindful that this is not just
25 a resolution from Jim Gennaro, the Chairman of the

1
2 Committee, this is a resolution from the entire
3 Council. And I have to answer questions like,
4 "Why are we advocating on behalf of the western
5 tier? Don't they have representatives out there?"
6 And I'm like, "Well, I'm sure they do, but we can
7 say it, too." And so, it's that kind of thing.
8 But--but this is my passion, this is what I want
9 to do, and I will sell it the best way I can to
10 the members of this body, and you have my word
11 that we'll have the best resolution that we can
12 possibly have with all of the circumstances that I
13 have to deal with to get this done. I've got, I
14 got people that I have to answer to, also. But I
15 can be pretty convincing, and now when the new
16 Council Members come in, 'cause there are new ones
17 coming in, I will be a, I'll be a senior Council
18 Member, you know, now. And so, I, so I just
19 wanted to respond to your concern about what
20 information we're going to be putting forward from
21 this body. And I have no intention of sort of,
22 you know, pitting our area of concern against the
23 rest of the State, and I don't think that would be
24 helpful or what my mother would want me to do.
25 [laughter] So--

2 WES GILLINGHAM: I actually, I have
3 no doubt that you're going to be following the
4 issue. You've been reading and involved in this
5 issue long enough so that you're kind of stuck
6 with it for quite a while. So--

7 CHAIRPERSON GENNARO: No, this is,
8 this is, this is my thing, this is what I do.

9 WES GILLINGHAM: I definitely
10 appreciate the work that you're doing, and that
11 wasn't a--that was just really, I just wanted that
12 in the record.

13 CHAIRPERSON GENNARO: No, it's good
14 you--

15 WES GILLINGHAM: As New York
16 citizens, no matter where we're from, or who our
17 reps are, we all need to get involved in this, and
18 push hard. What we've been handed by the DEC is
19 unacceptable and that needs to change. So, thank
20 you very much.

21 CHAIRPERSON GENNARO: Hear, hear.
22 I'm happy to, happy to do that, Wes, and happy to
23 do that. And the next witness, Susan Dey.

24 SUSAN DEY: Yeah, thank you so
25 much.

1
2 CHAIRPERSON GENNARO: Yeah, just
3 speak right into the microphone.

4 SUSAN DEY: Is it working?

5 CHAIRPERSON GENNARO: Yes, it is.

6 SUSAN DEY: Okay, great. I'm just
7 a citizen. And I'm a member of the Catskill
8 Mountainkeeper organization and I appreciate the
9 work that they have done. If it weren't for them,
10 I would be ignorant up there, and happy--

11 CHAIRPERSON GENNARO: They're a
12 wonderful group, I'm happy that you're supportive
13 of them.

14 SUSAN DEY: Yeah, they're great,
15 they really are. I live in Delaware County. And
16 I also live in the watershed area. So if this
17 Resolution should pass, and if it were approved in
18 Albany, you can imagine how happy I will be, and
19 how this Resolution has helped my property values.
20 But that's enough for me. And I think that we do
21 need to open up and look at the bigger picture.
22 That even though this may protect me, seemingly
23 protect me, we have to take in consideration who
24 it is that we are dealing with. And that these
25 conglomerates, the oil and gas companies, have

1
2 spent an awful lot of time planning this. And
3 they have, you know, set the path, they have paved
4 the way, where they are exempt from every single
5 environmental protection act that I, as a citizen,
6 am aware of.

7 CHAIRPERSON GENNARO: Right.

8 SUSAN DEY: They have, it's a game,
9 it's a bowling game, it's a strategy. And that I
10 do have to question, I, the shock, the shock of
11 the DEC's report saying that there really was
12 minimal risk to the watershed area. And how it is
13 that that has gotten the attention of New York
14 City to focus completely on the watershed area, as
15 you should, as you should protect your boroughs.
16 By the way, I also have a residency here in
17 Manhattan, as well. I pay property tax and both
18 ends, so to speak. But I think we need not to
19 fool ourselves, we need to look at the big
20 picture. How much land is New York City prepared
21 by buy? Because we are looking not just at the
22 airborne aspect, what these chemicals that are
23 readily airborne, we also have to look at the
24 aquatic ecosystem that is vast and interconnected.
25 And that they could be drilling 20 miles away and

1
2 it could affect my water. I live in the watershed
3 area. It could be 20 miles away from that, and
4 affect my--You see the picture.

5 CHAIRPERSON GENNARO: Sure.

6 SUSAN DEY: That we are not just
7 talking about New York City, we are--excuse me,
8 the New York City Watershed area, when we are
9 talking about the water used in New York City.
10 You are talking about the State of New York. And
11 again, you have to please also take in
12 consideration why we lean so heavily on this
13 Council, because we don't have protection from the
14 EPA, we don't have protection from the DEC. We
15 have a contemplative Department of Health. We
16 have a Governor who has turned his back on public
17 safety; a Governor that has not been elected by
18 the people, who has turned his back on public
19 safety. So we lean very heavily on you, and I
20 apologize for that. And my only last comment to
21 make is that when I sat here for all these hours
22 this morning, the only thing I didn't hear the
23 power of was the power of the people. And that
24 somehow we have got to get this information out to
25 the people, and educate the people. When I lived

1
2 in California, Arm and Hammer was going to drill
3 in the Santa Monica Bay, and this went on for
4 years, fighting him in court. These grassroots
5 organizations finally the town, the City of Santa
6 Monica decided to put it on a ballot. Like that
7 they went down. People got to vote. Thank you.

8 CHAIRPERSON GENNARO: No, thank
9 you, thank you, you came down here, you're giving
10 of your, you know, time and your talent and your
11 resources. And it has always been difficult for
12 the 19 years that I've been working on, you know,
13 watershed related issues, to get people in New
14 York City to, you know, take them seriously. Even
15 our own watershed, we're figuring how do, how do
16 we keep it clean? How do we do this? And do we,
17 you know, do more land purchases? And I've been
18 kind of a one-man band on that, and we've got a
19 pretty good record of trying to get things done.
20 But, it's just like out of sight, out of mind.
21 It's 100 miles away and like, "Where does it come
22 from, it comes from the faucet." Like it's not
23 more complicated, you know, than that to a lot of
24 people. And so, it's--so, in this case, I'm
25 having the same difficulty that I've always had,

1 which is trying to get people to pay attention.

2 And when I go around to, I'm a Council Member, so

3 I go to civic groups all the time, and I go to

4 business groups, and I try to speak about this.

5 And they're like, "We don't care." You know.

6 "Can we please talk about stuff that's going on on

7 like the next block? Can we talk about parks?

8 Can we talk about schools? Can we talk about

9 crime? Can we talk about other things that are

10 very important to local people and that, you know,

11 really consume the public mind." Things that are

12 going on 100 miles away, it just, you know,

13 difficult. So, I--We've always done our best, we

14 will do our best. Now this is a, you know, larger

15 charge to try to really make a case on behalf of

16 this issue for the entire state, from this like

17 little seat that I occupy here. But--

18 SUSAN DEY: May I suggest something

19 that--

20 CHAIRPERSON GENNARO: Sure, by all

21 means.

22 SUSAN DEY: --that always struck

23 me, was the issue of, it's always said that it's

24 the issue of the drinking water. And you now, a

1 lot of people in New York City drink bottled
2 water. No matter what you say, a lot of people
3 do. I don't think it's just the drinking water.
4 And I think that it has to be redefined. It's
5 your water. It's the water you bathe your
6 children, it's the water you cook your meals in,
7 it's the water you drink, it's the water that
8 serves you. And not just drinking water.

10 CHAIRPERSON GENNARO: That's a good
11 way to characterize it, and I always learn at
12 these hearings, which is why I have them. You
13 know, and I thank you for that, Ms. Dey. I thank
14 this entire panel, you know, for the great value
15 added that you brought to this discu--and we have
16 one more, let's, let us not forget, let us not
17 forget, we have Matt Wallach, who is an esteemed
18 member of this panel. And I'm sorry about that,
19 Matt.

20 MATT WALLACH: That's alright.

21 [laughs]

22 CHAIRPERSON GENNARO: And so,
23 please come forward with your good testimony.

24 MATT WALLACH: Alright, thank you,
25 my name's Matt Wallach, I'm the Hudson Valley

1
2 Program Coordinator for Citizens Campaign for the
3 Environment (CCE). CCE is an 80,000 member,
4 nonprofit, nonpartisan advocacy organization that
5 works to protect public health and the natural
6 environment. CCE thanks the Committee for holding
7 this public hearing on the draft Supplemental
8 Generic Environmental Impact Statement for oil,
9 gas and solution mining in New York State, and
10 that I thank you for your leadership in this
11 matter. CCE is concerned about the effects of
12 high volume hydraulic fracturing, or hydrofracking
13 across New York State. New York City is blessed
14 with access to amazing freshwater resources that
15 are unfiltered. The Filtration Avoidance
16 Determination serves New York City billions of
17 dollars and emphasizes the importance of
18 protecting New York State's environment as a
19 necessity for sustainability in the City. New
20 York City is not the only city in New York with a
21 filtration avoidance. The City of Syracuse
22 receives its water from Skaneateles Lake, and also
23 operates under filtration avoidance. CCE is
24 committed to preserving New York's freshwater
25 resources because New Yorkers everywhere should

1 not have to choose between clean water and energy.
2 We need both. High volume hydrofracking in
3 combination with multi-well pads presents a new
4 challenge to protecting New York's land, air and
5 water. The multi-well pad sites require larger
6 acreage dedication, and because there will be
7 multiple wells the temporary onstage storage for
8 waste, such as drill cuttings, flow back fluids,
9 and production brine, is larger. The drill
10 cuttings are contaminated with normally occurring
11 radioactive materials, or NORMs, and the DEC has
12 acknowledged that the concentration of these NORMs
13 requires that they are disposed of as hazardous
14 waste. Additionally, the flow back water and
15 production brine contain high levels of total
16 dissolved solids, and threats to air quality such
17 as nitrogen oxide. CCE will be providing
18 comprehensive and detailed comment, which we will
19 copy to this Committee. However, in the interest
20 of the Committee's time, I would like to outline a
21 few, the following four overarching issues. I'll
22 keep them short. DEC findings on water is number
23 one. CCE is alarmed that the DEC is seeking to
24 maintain findings from 1992, which allow drilling
25

1
2 on or near sensitive watersheds, including sole
3 source aquifers and unfiltered drinking water
4 sources. CCE disagrees with the original findings
5 and in light of the planned, intense drilling,
6 with high volume hydrofracking, the DEC should
7 reassess watershed impacts based on more recent
8 document findings. Number two is centralized
9 impoundments. The DEC proposes to actually allow
10 the industry to cite multi-acreage impoundments
11 for storage of flow back water from the high
12 volume, hydraulic fracturing process. The draft
13 SGEIS clearly outlines the challenges associated
14 with storage of this fluid in an open centralized
15 impoundment, yet does not take the precautionary
16 step of denying the ability for industry to store
17 these in an open impoundment. CCE believes that
18 at the very least, covers must be mandated, and
19 prefers the use of tanks. CCE believes that
20 impoundment possess threats to air quality, the
21 potential for spillage, and the threat to
22 wildlife. Number three is cumulative impacts.
23 Last week, as mentioned earlier, I think, the EPA
24 issued a ruling to Colorado that there are
25 cumulative impacts to air and natural gas wells.

1
2 However, the DEC only pays lip service to the
3 issue of cumulative impacts on air, land and
4 water. The potential economic gain associated
5 with natural gas drilling must be weighed against
6 the real costs, including water contamination,
7 increased climate change, pollution, impacts to
8 air quality, and the impacts in New York's
9 infrastructure as outlined below. Number four is
10 the stressors on infrastructure and local
11 municipalities. And the question is who pays?
12 New York State has an infrastructure problem. The
13 DEC has issued reports quantifying a \$36 billion
14 funding gap over the next 20 years for necessary
15 upgrades to sewage treatment plants, and
16 collection pipes. It is well known that SPDES
17 permits, SPDES reviews happen infrequently, at
18 best, due to a lack of DEC staff and funding. The
19 draft SGEIS states that if flow back water is to
20 be treated at an existing publicly owned treatment
21 facility, the facility must upgrade its SPDES
22 permit and receive approval from the Division of
23 Water. CCE agrees that this must happen if the
24 treatment facilities are to accommodate this need.
25 However, we beg one question, who pays?

1
2 Additionally, DEC is shifting the burden of
3 monitoring local water quality to local Department
4 of Health officers, and maintaining existing soil
5 and water conservation district jurisdiction as it
6 is applicable. Again, who pays? Soil and water
7 conservation districts are struggling, and making
8 tough staffing decisions, as many have not
9 received funding that the Legislature approved in
10 the budget for the current fiscal year. The
11 result is that these critical programs are cut and
12 the programs in place are falling by the wayside
13 with an end result of no real monitoring or
14 protection. CCE believes the New York State
15 Legislature must demand that if oil and gas
16 companies are to place these burdens upon the
17 people of the State of New York, they must pay.
18 There must be an insurance for the people of New
19 York that these companies are willing to pay to be
20 here, and make a profit off our land, air and
21 water. And there must be an insurance that as
22 they dump chemicals into our air, land and water,
23 they, that they are willing to compensate us for
24 the profits that they are sure to incur, at our
25 expense. Finally, CCE also supports extending the

1
2 public comment period for at least 60 days. And
3 in conclusion, CCE again thanks the Committee for
4 its time today to take public comment.

5 CHAIRPERSON GENNARO: Thank you.
6 Thank you, Mr. Wallach, and I want to thank all
7 the good folks at CCE for all that they've done.
8 And we really appreciate you being here today.
9 And Samara, who was your professor, as I
10 understand it, is very proud of you. I think
11 she's shepping nachas right now. Okay.
12 [laughter] It's a, but--pleasure to have you with
13 us here, Matt. I think it's your first time
14 before the Committee, and I hope you'll come back
15 and see us many times. Okay, I just wanted to
16 give you a little special shout out because you're
17 Samara's student there.

18 MATT WALLACH: [laughs] Thank you.

19 CHAIRPERSON GENNARO: And someone
20 else here'll explain about the nachas and all
21 that. [laughter] They'll fill you in. I want to
22 give you real life experience, you know, in being
23 here. I'm not Jewish, I just have fun with fun
24 sounding words. [laughter] And so. I want to
25 thank this, I want to thank this Committee for, in

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25

a special way for what you brought to the table here, and for being so patient for staying there the whole day to give us the benefit of your views. I know I'll see you all on November 10th, when we take Stuyvesant High School by storm. And give the State DEC something to really, something to really think about. Thank you one and all, appreciate it.

FEMALE VOICE: [off mic] Thank you.

CHAIRPERSON GENNARO: Sure.

[applause] And we have, oh, my friend Dan Jacoby, Meryl Mc--

MALE VOICE: [off mic] She had to leave.

CHAIRPERSON GENNARO: Oh, she had to leave? Okay. Joe Kupferman, Mav Moorhead, Buck Moorhead. I think the Moorheads left, did they? [off mic comment] Okay, okay. [off mic comment] Okay. So. Okay, just--Oh, fine, fine, fine. Hello? [pause] Okay, so, Joel, Joel's not here. Just doing a little housekeeping for a second. Mav is here? Buck is not here. Dan is here.

FEMALE VOICE: [off mic] And then

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25

those people already left.

CHAIRPERSON GENNARO: These here, they left. Alright. Are there other witnesses. I'll tell you what, why don't we have that everyone else who's wishing to be heard, why don't we just have a final panel of everyone who's wishing to be heard. Oh, we got, okay. Yeah, why don't we just have one sort of grand, grand finale panel? And, so, why don't we get the panel all situated, and then I'll have to, and I'll be back in one minute. Okay? Just everybody get set.

MALE VOICE: [off mic] Sure.

[pause, off mic comments]

CHAIRPERSON GENNARO: Do you have slips for those people? [pause] Okay.

DAN JACOBY: Ready?

CHAIRPERSON GENNARO: Yes, I am. Dan, I'm always ready for whatever you have to say.

DAN JACOBY: Alright. I want to thank you for having this hearing, you're doing great work on this and many other environmental issues. I don't have to detail the dangers of drilling in the Marcellus Shale to this Committee,

1
2 so I'll just refer to the report that I'm
3 attaching to the oral testimony. Resolution 1850
4 is a very good Resolution. I do recommend two
5 changes. The first one is since the chemicals
6 used, as we've heard, they travel a long way from
7 where they inserted into the ground, and also
8 there's a lot of horizontal drilling now, I
9 suggest that you change the Resolution to include
10 those. Maybe to hope for a ban all horizontal and
11 vertical, and not just within the watershed, but
12 within 25 miles of the watershed, because if we
13 don't get that kind of, that extended ban, our
14 water's in danger, as you well know. The second
15 thing is, there's a couple of clauses down, buried
16 down deep into the Resolution. The 13th and 14th
17 whereas's. The 13th begins, "Whereas the New York
18 City Watershed area represents less than four
19 percent--" yadda-yadda-yadda, "those two clauses
20 give the impression of condoning drilling outside
21 the watershed area. Now, I understand why the
22 City Council shouldn't tell the rest of the State
23 what to do, and I agree with that.

24 CHAIRPERSON GENNARO: I--yeah.

25 DAN JACOBY: But I think that we

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25

don't want to give the impression--

CHAIRPERSON GENNARO: I think that's fair to say, and it's something that I've had discussions with staff about it.

DAN JACOBY: Good.

CHAIRPERSON GENNARO: I talked to Al Appleton about that.

DAN JACOBY: Good, love to see those - -

CHAIRPERSON GENNARO: Yeah, 'cause I, I think it kind of creates the, you know, there was a certain concept behind putting that language in, but I--I think it doesn't work so well in that context, and I think it creates that impression. And I don't like that.

DAN JACOBY: Good.

CHAIRPERSON GENNARO: So.

DAN JACOBY: Thank you. Now--

CHAIRPERSON GENNARO: Yeah.

DAN JACOBY: Finally, before we get this passed, or maybe while we're getting it passed, and we've heard a lot of talk about working with the rest of the State, and trying to get everything together, there's actually, as you

1 know, it occurred to me that there's a, back in
2 2005, Dick Cheney got hydrofracking exempted from
3 the Safe Drinking Water Act. There's bills in
4 Congress now, both Senators are on the Senate bill
5 as cosponsors, Schumer and Gillibrand. A bunch of
6 House members, especially from upstate, including
7 Arcuri, Hall, Hinchey, Massa, John McHugh was on
8 it when he was in Congress, and Paul Tonko. Maybe
9 if we get 'em all together and do a massive, you
10 know, press event, maybe we will finally get the
11 press out. [applause]

13 CHAIRPERSON GENNARO: Okay.

14 DAN JACOBY: And then finally, I
15 just want to close. One of the problems we're
16 going to have with the--we've heard about a lot of
17 problems with the DEC's draft report. And I think
18 the problem starts at the top. Last October,
19 Commissioner Grannis also testified before the
20 Assembly, and I want to highlight a couple of
21 things he said that are in my report. One, he
22 said, "The same geology that has sealed natural
23 gas in the rock for millions of years, together
24 with our strict well casing and cementing
25 requirements, prevents any risk of groundwater

1
2 contamination from the drilling and fracking
3 operation." The Environmental Working Group who
4 testified earlier actually filed a FOIL request to
5 ask for the tests and the studies on which he
6 based that statement. There were no tests, there
7 were no studies. He either made it up or he got
8 it from somewhere strange. And I think I know
9 where he may have gotten it from, and from that
10 I'm going to quote from a follow up letter that he
11 wrote to the testimony, in which he wrote, "We
12 stated that the use of benzene, toluene, ethyl
13 benzene and/or xylene in Marcellus hydraulic
14 fracturing did not rise to a level of concern,
15 based on the information provided to us by
16 operators." He's getting his info from the
17 drillers. And he's buying it hook, line and
18 sinker. This is what we're up against. That's
19 why it's going to take a statewide effort to make
20 sure that we get what we need. Thank you.

21 [applause]

22 CHAIRPERSON GENNARO: Dan, thank
23 you. And thank you. Dan and I've been friends a
24 long time. Mav Moorhead? Okay.

25 MAV MOORHEAD: I'm Mav Moorhead,

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25

and--

CHAIRPERSON GENNARO: Are you related to Buck?

MAV MOORHEAD: Yes, I am.

CHAIRPERSON GENNARO: Okay.

MAV MOORHEAD: [laughs] I'm Mav Moorhead, and I'm--I think I'm doing it--

CHAIRPERSON GENNARO: You got to speak right into the microphone.

MAV MOORHEAD: I'm not doing it, oh, okay. [laughs] I'm Mav Moorhead, and I'm a board member of NYH20. First of all, I want to applaud you thank you so much for your conscientious efforts on this behalf. It's, your efforts are just incredible, and you were the first guy out there, it was really terrific. And it's a pleasure and an honor to talk before you today. I'll be brief so as not to restate what has previously been covered here.

FEMALE VOICE: [off mic] Can you speak a little louder please - -

CHAIRPERSON GENNARO: Yeah. Yeah, right into the mic.

MAV MOORHEAD: Not my forte.

1 [laughs] Okay, at what point does the cumulative,
2 reintroduced water cross the safe threshold of
3 acceptable levels of toxins in the water supply?
4

5 And at that point, is there a viable means to
6 reverse the damage done to the drinking supply of
7 millions of people? Damage done to private wells,
8 aquifers, ground water and streams is

9 irreversible. Any treatment plants that would be
10 constructed would take years to complete. The

11 Croton Water Filtration Plant started three years
12 ago, at the cost estimate of \$1.3 billion, and

13 with the cost overruns is now \$3.3 billion, and
14 not complete. And an emergency event hasn't even

15 taken place yet. A 1990s estimate of \$10 billion
16 for a water treatment plan for New York City alone

17 is now estimated to be \$20 billion with \$100
18 million per year to maintain it. This cost of

19 water would be born to the taxpayer. As things
20 stand now, we currently have a filtration

21 avoidance system status in New York City, an

22 enviable and unique position in the world today,

23 thanks to early and brilliant planning. And this

24 would come to a final and abrupt end with the

25 inception of this flawed process of hydraulic

1 fracturing, horizontal drilling. Our critical
2 water supply infrastructure, water quality and
3 available water supply hang in the balance with
4 the prospect of the potential tsunami of calamity
5 that faces New York water resource as a whole.
6 The consequences of this process are dire. With
7 the sweep of a pen, all that we have attained and
8 nurtured in terms of a clean water supply could be
9 wiped out. Life would become unalterably changed
10 for every single person in this State. Water
11 affects are very staff of life. The onus of
12 responsibility lies with the gas industry to prove
13 that every aspect of the process of hydraulic
14 fracturing, horizontal drilling is a safe and
15 harmless process, which of course is not, is
16 impossible. All rescinded provisions in the
17 Energy Act of 2005 to protect our water, air
18 rights and superfund ability for reclamation and
19 other safeguards to our environment, must be
20 immediately restored to their original protection
21 intents. The FRAC Act is a good first step
22 towards this goal, but more legislation must be
23 enacted to achieve positive protective actions.
24 All or, all, not part, or abbreviated listed
25

1
2 components of the fracking fluids, including all
3 toxic materials must be disclosed to the public,
4 and all governing agencies, EPA, DEP. We need
5 full disclosure of all the chemicals used in
6 hydraulic fracturing, horizontal drilling. I'm
7 trying to keep this brief, I'm not reading the
8 whole thing.

9 CHAIRPERSON GENNARO: Thank you.

10 Okay.

11 MAV MOORHEAD: I'm almost done.

12 [laughs] About 30 seconds. Serious, meaningful
13 fines should be levied on infractions such as
14 reintroduced water, spills, leaks, fires and other
15 accidents not specified here. The frivolous fines
16 that were just imposed yesterday on the Cabot
17 spills at the Heisman's well in Pennsylvania, of
18 over 8,000 gallons that polluted Stevens Creek and
19 nearby wetlands, of \$56,650 created little
20 punitive damage and were simply a slap on the
21 wrist, and fit the category of the cost of doing
22 business for gas companies. Original baseline
23 pre-drilling water testing would have to be done
24 at the expense of the gas companies, if any
25 landowner in New York State sees fit to want it

1
2 done, to assure that his water is not contaminated
3 before drilling proceeds in this state. This
4 includes private wells in remote areas, as well.
5 Everyone who's included is entitled to clean
6 water. This is a health issue of unprecedented
7 proportion never witnessed in this country before.
8 We must move with alacrity to prevent the toxic
9 spills, blowouts, fires for days on end,
10 explosions, heavy well contaminations--and I go on
11 and on, I'm trying to make this brief [laughs] and
12 even death and crop sickness. In conclusion, I
13 have included in my testimony over 25 letters and
14 resolutions from the community boards and borough
15 presidents, and related Senator and attorney
16 expert communications relating serious concern
17 regarding hydraulic fracturing, they're included
18 in my comments provided here as a result of the
19 efforts of NYH20. And thanks very much for
20 listening.

21 CHAIRPERSON GENNARO: Thank you.
22 Thank you, Ms. Moorhead. [applause] And I have
23 all of that, all of the documents that you had
24 cited, we all have them here.

25 MAV MOORHEAD: Perfect.

2 CHAIRPERSON GENNARO: In your
3 package, and I thank you very much. I guess I
4 have to just, I just, need to be excused for one
5 moment, okay, I'll be right back. [long pause,
6 off mic comments] Sorry about that. Okay. We're
7 back. And I had only slips for Dan and for Mav,
8 and I know, I know we probably have slips for you
9 all some place, but you'll have to forgive me if I
10 don't, if I don't have the ability to call you by
11 name. So why don't we start this way, and we'll
12 go that way. Okay?

13 FEMALE VOICE: Alright, so--

14 CHAIRPERSON GENNARO: Or whoever
15 was next, yeah.

16 FEMALE VOICE: We just set a
17 pattern in place.

18 CHAIRPERSON GENNARO: Okay, and
19 just state your name for the record and proceed
20 with your statement.

21 MONICA HUNTGIN: I'm Monica
22 Huntgin, and I wanted to thank you so much,
23 Chairman Gennaro, for allowing democracy to take
24 place today, six hours, going strong. I'm going
25 to be brief.

2 CHAIRPERSON GENNARO: I'm getting
3 paid.

4 MONICA HUNTGIN: [laughs]

5 CHAIRPERSON GENNARO: I get paid a
6 full time salary, so I'm--yeah.

7 MONICA HUNTGIN: No, I really
8 appreciate. And I appreciate all of your
9 attentiveness today to each speaker.

10 CHAIRPERSON GENNARO: Sure.

11 MONICA HUNTGIN: I really
12 appreciate it, I'm impressed. So I'm going to be
13 brief, I'm going to try not to repeat too much,
14 but as a good preacher said, "You got to tell 'em
15 what's you're going to tell 'em, tell 'em what
16 you're tell 'em, and then tell 'em what you told
17 'em." So--[laughter]

18 CHAIRPERSON GENNARO: And--

19 MONICA HUNTGIN: This is good we've
20 been here so long.

21 CHAIRPERSON GENNARO: And also one
22 other thing that people say is, "There are many
23 good things that have been said today, but they
24 haven't been said by me." [laughter] You know.
25 And so--

2 MONICA HUNTGIN: That's it exactly.

3 CHAIRPERSON GENNARO: It's like, we
4 politicians say that a lot.

5 MONICA HUNTGIN: It's true. Okay,
6 so, I hope today that we will arrive at the right
7 solution, a complete ban on this practice, as far
8 reaching as possible. As Governor Patterson nears
9 the end of his reign, with ratings at a record
10 low, he's making a last ditch effort to save face
11 and promise a rescued economy and more jobs. But
12 he is making a woeful mistake if he puts his eggs
13 in this basket, a Pandora's Box of gas drilling
14 play. The salvation of our economy will not be
15 born from an unsustainable, unreliable and
16 hazardous industry. What we need now is to focus
17 on long term success, beyond Governor Patterson's
18 shortsighted, get rich quick schemes. The
19 extraction process of hydraulic fracturing is
20 extremely risky and fallible. Oil and gas
21 companies across the nation have been hammering at
22 a breakneck pace and mistakes happen more than we
23 care to know. In order to safely conduct this
24 toxic and complicated process, if that's even
25 possible, which no one has held them responsible

1
2 to figure out, a huge amount of monitoring and
3 regulating needs to happen. However, Patterson's
4 8,000 job cuts, including about 225 of the DEC
5 staff, cuts this off at the knees and puts us all
6 at risk because we do not have the kind of strict
7 and thorough observation necessary to protect our
8 water, land, agriculture, air and our health. We
9 enter this severely handicapped. The industry
10 continues to lose clout with their ridiculous
11 claims of safe practices. Just in recent news,
12 one to three spills of frack fluid from 5,000 to
13 8,000 gallons occurred in Dimock, Pennsylvania, as
14 we heard; 161 species completely died off in
15 Dunkard Creek in southwestern PA. And this has
16 been said. And there is no standard set in place
17 for disposal of the high amounts of waste water
18 created. It all goes right back into the ground,
19 ends up in your bagel or coffee or in those lovely
20 donuts that you promised earlier this morning to
21 us, possibly. [laughs] In August, the EPA
22 confirmed the presence of 2-BE, butoxyethanol,
23 which is associated with kidney damage, harm to
24 the adrenal gland, and reproductive problems, in
25 drinking water, both in Colorado and in Pavilion

1 Wyoming, in association with hydraulic extraction
2 there. When will we enjoy the fruits of this
3 supposed Clean Energy Saver, when we will be
4 spending all our time cleaning up its costly
5 messes? What may seem like a quick boost will
6 ultimately lead us to paying in the long run,
7 paying millions of dollars for the destruction of
8 roads, a huge drop in the value of property,
9 paying more than \$10 billion for a filtration
10 system that won't even work, to filter out all of
11 these hundreds of toxic chemicals, which some of
12 them have such tiny molecules, in our clean water.
13 We will lose our precious organic farming
14 industry, we will pile up medical bills, lawsuits
15 will fly up all over the state for incurred
16 damages. Also, each well drilled loses 50 percent
17 of its production after the first year. So the
18 only way to maintain the same mineral value is to
19 drill 50 percent more wells every year. This is
20 not economically sound. It is highly un-American
21 and retroactive to impose this land grab, this
22 destruction of property, this robbery and
23 decimation of clean, potable water, this outright
24 lie to American citizens about what threats they
25

1
2 are being exposed to. And this continued reliance
3 on short term energy solutions. Meanwhile,
4 American renewable energy companies are being
5 pushed to countries like Germany and Japan, and
6 taking thousands of good paying jobs along with
7 them, while we continue to be stuck in this
8 dangerous cycle of unsustainable schemes. Let us
9 move forward and work our way out of this hole.

10 Let New York State set the standard for the nation
11 by choosing true security and public health first.

12 I look forward to the moment of your brave
13 decision when we can all run out cheering into the
14 streets and congratulate ourselves for saving our
15 water and saving our health and moving out of this
16 nightmare. Until this moment, we will continue to
17 grow our opposition, as we already have today, and
18 we will not stop fighting. Thank you so much for
19 you attention.

20 CHAIRPERSON GENNARO: You bet, you
21 bet. [applause] And--what group do you
22 represent, by the way?

23 MONICA HUNTGIN: I work with
24 several groups. I work with NYH2O, I work a lot
25 with Josh, with Water Under Attack.

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25

CHAIRPERSON GENNARO: Okay.

MONICA HUNTGIN: Damascus Citizens.

CHAIRPERSON GENNARO: Great, okay.

- - Yes.

DENISE KATZMAN: Hi, my name is
Denise Katzman, and your Yiddish rocks.

[laughter]

CHAIRPERSON GENNARO: Okay.

[laughs]

DENISE KATZMAN: I have supported
environmental entities for over 25 years. I was a
big supporter of the New York campaign for the
Fuel Film. I'm also assisting--

CHAIRPERSON GENNARO: The Fuel
Film?

DENISE KATZMAN: Yes, sir.

CHAIRPERSON GENNARO: That's a good
movie.

DENISE KATZMAN: It's a daman good
movie, go see it, people.

CHAIRPERSON GENNARO: Right.

DENISE KATZMAN: I'm also assisting
as Monica - -

CHAIRPERSON GENNARO: I'm in the

1 movie, that's why it's a good movie.

2 DENISE KATZMAN: And he is, yeah
3 he's in it. [laughter] He's the movie star of
4 the movie.
5

6 CHAIRPERSON GENNARO: Yeah.

7 DENISE KATZMAN: I'm also, as
8 Monica's assisting Josh Fox, with Water Under
9 Attack. And I'm so proud of everyone today saying
10 mostly what I wanted to say, so I'm whittled down
11 to nothing. And I'm going to make it short.
12 Politicos as a whole on our City Council and our
13 State, and Patterson at the lead, have a fiduciary
14 duty, because as the joke goes, and it ain't
15 funny, there will be blood, we will bring it on.
16 There lawsuit that Pat talked about is how we as
17 grassroots citizens will get the politicians to
18 pay attention. And if the lawsuits are--

19 CHAIRPERSON GENNARO: You got on so
20 far, you know, me, anyway, you know, but--
21 [laughter] That's a start, you know.

22 DENISE KATZMAN: The leaseholders
23 of the Marcellus Shale and across the industry
24 into coal mining mineral rights for decades are
25 crying, they can't pay for the EISs, they are

1
2 liars, they always will be liars, they con
3 innocent citizens into signing these leases, and
4 they rape them of their rights. Cheney and Bush
5 raped us of our right to know with the Clean Water
6 Act. You, in this resolution, you should demand
7 that the FRAC Act be part of it. And soon, we
8 hopefully will see the--

9 CHAIRPERSON GENNARO: We have that
10 in there. That's in there.

11 DENISE KATZMAN: It is? Great.
12 Okay.

13 CHAIRPERSON GENNARO: Oh, yeah, I'm
14 just saying that, that we have that in the Reso.

15 DENISE KATZMAN: Okay, great.

16 CHAIRPERSON GENNARO: You know,
17 sure.

18 DENISE KATZMAN: I don't know, I
19 haven't been able to see enough of it.

20 CHAIRPERSON GENNARO: Oh, yeah,
21 yeah, yeah.

22 DENISE KATZMAN: Great.

23 CHAIRPERSON GENNARO: Okay, yeah,
24 we--

25 DENISE KATZMAN: Great.

2 CHAIRPERSON GENNARO: We have that
3 in there.

4 DENISE KATZMAN: And hopefully in
5 the immediate future, we will be able to see split
6 estate legislation, that's one of the major
7 problems that landowners don't know about. They
8 don't realize that when they buy their properties,
9 if they don't have a fee simple deal, they don't
10 own from heaven to hell, they end up with a split
11 estate. And there's a new documentary on the
12 green, on Planet Green, that you can follow called
13 "Split Estate." So as liars go, Marcellus Shale,
14 East Resources is the largest leaseholder. They
15 can't pay for the EIS. Bullshit. KKR, Kohlberg
16 Kravis and Roberts, a huge financial entity, is an
17 investor in that entity, to see the big cash flow
18 from this, but they hand us a death sentence over
19 and over: our human health and our environmental
20 future. As Josh Fox has shown, and as we know
21 through news reports for too many decades, people
22 have been dying. But in this day and age, people
23 can't afford the health insurance that they had
24 ten years ago. And they don't have the resources
25 for the lawyers. So, as I said, we as people - -

1
2 have to work together and we have to protect what
3 is ours as a fundamental right. And as people
4 have mentioned today, the property rights plummet,
5 houses can't be sold. You don't have to go to the
6 movies to pay for a horror film, we got it all
7 over this country. This city and this state as
8 Monica said, as everyone has said, has the
9 opportunity to move forward to stop it now. Thank
10 you.

11 CHAIRPERSON GENNARO: Thank you.

12 Thank you. [applause]

13 FEMALE VOICE: Jane, you going to
14 go?

15 JANE CYPHERS: Yes. Good
16 afternoon. Thank you so much for what you're
17 doing. I'm just wondering how we can get the word
18 out.

19 CHAIRPERSON GENNARO: We just need
20 you to--

21 JANE CYPHERS: My name is Jane
22 Cyphers, C-Y-P-H-E-R-S. And I'm a member of
23 Damascus Citizens for Sustainability. And when I
24 first heard about this 21 months ago, I started to
25 do a lot of research, and I'm so sorry--I can't

1
2 turn it off. And so every week, every month, I
3 started putting out updates about the information
4 that was coming out, and I've sent out to hundreds
5 and, you know, thousands of people, articles, and
6 you know, this is a very, there are a lot of
7 variables here, as you well know. And the whole
8 issue with the upstate/downstate issue is a big
9 one, and the issue with the faucet that, you know,
10 all of these farmers are being offered this money
11 for land. And, but, you know, who are strapped
12 right now. And you know, I understand where
13 they're coming from, some of them who are leasing.
14 You know, they said they think they could do it
15 safely, they've been told by the, you know, some
16 of the major institutions out there. They've been
17 told by Cornell, you know, Cornell and Penn State
18 have just started to talk about the negative
19 impacts. At the beginning, it was all about the
20 positive impacts. I mean, there's a lot of,
21 there's a--what I actually wanted to get at was
22 the fact that, you know, here we have these
23 institutions, the DEC, Cornell, Penn State. You
24 know, I was very concerned that the DEC was not
25 here to hear this, and to have face-to-face

1
2 contact. I understand, I just spoke to, I've got
3 several calls back from them, from the calls I've
4 made, and I do understand that the gentleman
5 Arturo Garcia Costas, who will be facilitating the
6 meeting on December 10th, will be, has, took ill,
7 and had to leave. So, that's unfortunate,
8 because, you know. But he did say that every
9 transcript will be part of the docket. So--You
10 know, what I wanted to also get to, was, you know,
11 where is the money flow here, you know. Where is
12 the money flow as far as, you know, the oil and
13 gas companies and the subsidies. The document
14 that Cornell, that Columbia put out, they started
15 to discuss that issue in that document, which I
16 think should be spread to every member of the City
17 Council, and beyond. You know, that's a huge
18 issue. I mean, this is health, public health
19 issue. This is, the biggest issue that nobody's
20 talking about. And we know why, I mean, we
21 started to do research, we had, you know, some
22 interns who started to look at who, where the, who
23 was taking which money from where? And, you know,
24 it's all out there, you can go on the websites and
25 find it, and you know, I think you can guess what

1
2 the results are, but it would be great if New
3 York, if somehow, I mean, I'm not sure how, you
4 know, I don't know everything about how city
5 government works, but if the New York City DEP or
6 City Council could maybe request that there is
7 some kind of disclosure about that, I mean, I know
8 that's a long shot, but you know, possibly
9 figuring out how that works. You know, we really
10 need somebody to take the reins on this, and I
11 applaud you for that. It's been amazing, you
12 know, that you've done this, and I, obviously it's
13 not popular. But the alterna--you know, the
14 repercussions that will come from this are vast.
15 Whatever kind of connection you can make with the
16 DRBC and the EPA. I mean, the EPA has finally
17 woken up. I have a document, a list of documents
18 here, and this is, you know, it's about 40 pages,
19 at font size nine, so it's, there's quite a few
20 documents here. This was only from the last three
21 weeks. You know, this, that's why, you know,
22 where, I mean, I'm assuming that, I'm hoping
23 somebody from the Times was here. I heard that -
24 - Lutzgarden [phonetic] was here. I--whatever we
25 can do to get some more, to get the information

1
2 out. You know, I'd be happy to work with Brad
3 from your office, and--

4 CHAIRPERSON GENNARO: Yes, - -

5 JANE CYPHERS: Find out a way to do
6 that, because this is the problem, this is a real
7 problem here. The information is there, but it's
8 not--as I said, there's a lot of variables, it's
9 very, it's a very difficult topic. And--

10 CHAIRPERSON GENNARO: Thank you,
11 Jane, appreciate that.

12 JANE CYPHERS: Thank you.

13 CHAIRPERSON GENNARO: My sister's
14 named Jane, too.

15 JANE CYPHERS: I know, you told me
16 that last time.

17 CHAIRPERSON GENNARO: I probably,
18 oh I mentioned that the last time? Okay, fine,
19 yeah. Yeah.

20 JANE CYPHERS: And the woman up in
21 Albany, her name is Jane, too. I spoke to Albany,
22 and I spoke to, let's see, I spoke to Sanford.
23 Susan, and then her secretary was Jane.

24 CHAIRPERSON GENNARO: Oh, I see.
25 See, it just--yeah, I usually meant if I bump into

1
2 someone who has the same name as my sibling, I'll
3 say, "Oh, I have a--" I have a lot of siblings, so
4 I--

5 JANE CYPHERS: I also have a
6 brother named James. [laughter] But he did--

7 CHAIRPERSON GENNARO: So--

8 JANE CYPHERS: --he did pass away,
9 I'm sorry to say.

10 CHAIRPERSON GENNARO: Oh, I'm
11 sorry, I'm sorry to hear that. I'm sorry to hear
12 that. I'm sorry to hear that.

13 JANE CYPHERS: Health issues.

14 CHAIRPERSON GENNARO: Yep, yep,
15 yep. Health.

16 JANE CYPHERS: This is a big health
17 issue.

18 CHAIRPERSON GENNARO: Hear, hear.
19 Hear, hear. And, yes, yes, miss.

20 SUSAN ROSENTHAL: So--

21 CHAIRPERSON GENNARO: State your
22 name for the record, please.

23 SUSAN ROSENTHAL: Susan Rosenthal.

24 CHAIRPERSON GENNARO: Okay.

25 SUSAN ROSENTHAL: So, dear Council

1
2 Member Gennaro, and the members of the Committee
3 on Environmental Protection. I have to say that
4 this has been an amazingly inspiring day, and it
5 inspires me to go on to do more advocacy, because
6 the people you're advocating to get involved often
7 have a lot of vested, financial issues in perhaps
8 the other side, you know, of profiting from
9 natural gas business. So, the following
10 testimony, I gave July 15th at the Delaware River
11 Basin Commission hearing in Bethlehem,
12 Pennsylvania, where the audience was half farmers,
13 landowners, and half us. And, but the issues are
14 entirely transferable, those issues related to
15 whether Chesapeake was going to be able to pull
16 out a million gallons of water a day from the
17 headwaters of the Delaware River. A day equals,
18 you know, 24 hours a day of working, seven days a
19 week, creating truck traffic that they didn't even
20 include in the plan. But anyway, so, and that was
21 the first time I've testified on this. So, this
22 is going to be short.

23 CHAIRPERSON GENNARO: Thank you.

24 SUSAN ROSENTHAL: Yes, okay. But
25 some of it you'll see will relate a little bit to

1 farmers, and economy. My name is Susan Rosenthal,
2 and I have been a New York City resident for 40
3 years. And I have also been a homeowner in
4 Damascus, Pennsylvania on the Delaware River for
5 27 years. I am obligated to take off a day of
6 work today, and sit here and listening to this
7 testimony on natural gas extraction by fracking,
8 because this is not an abstract, or theoretical
9 issue for me. When I started reading about the
10 rush to natural gas extraction by fracking the
11 Marcellus Shale about two years ago, on a country
12 road in Damascus, I immediately learned that this
13 procedure was exempted from Clean Air, Clean
14 Water, Safe Drinking Water Act of 2005. And the
15 fracking fluid formulas were protected from review
16 for proprietary reasons. You can't even get at
17 the stuff, and the work that Theo Coburn and these
18 people have done, you know, they have to steal
19 this stuff to figure out what's going on. I did
20 some more research and learned that radiation from
21 deep in the ground, benzene that we've heard
22 today, and perhaps even dioxin, are among the
23 products and byproducts implicated in fracking. I
24 was terrified. Why? I am a 28 year, very rare
25

1 survivor of acute myelogenous leukemia, AML. This
2 type of leukemia is considered an environmental
3 leukemia, and is highly associated with radiation,
4 benzene and dioxin. And you've heard today about
5 how much water it takes to dilute the benzene,
6 you've heard about all the--okay. So try to
7 imagine me at 32 years old, bald head, with a tube
8 coming out of my chest, two months in the hospital
9 on isolation trying to get a remission, as I was
10 dying, and three years on massive chemotherapy.
11 And now, 28 years later, I'm a miracle; however,
12 the survivor statistics for this same kind of
13 leukemia, 28 years later, are still lousy. My
14 nephew's wife got this leukemia two years ago, and
15 you know, she lasted 13 months, she died not long
16 ago. So maybe the remission now is two-and-a-half
17 years, rather than nine months. No one wants to
18 be one of the decision makers that contributes to
19 their children, their grandchildren, their
20 families and friends getting AML or the many other
21 lymphomas and other blood and solid cancers that
22 are sensitive to the environmental pollution. All
23 the money in the world cannot reverse or heal this
24 kind of suffering and loss. Our farmers know
25

1
2 about chemical exposures through their work, but
3 now we all know more and we must use this
4 knowledge responsibly and how we use it to make
5 the best decisions. Because if we get this wrong,
6 which is what you're trying not to do, we just
7 can't say, "Oops." And I want to say that, you
8 know, you proposed to the State, "Well, if you're
9 so sure this is safe, guarantee it financially."
10 Right? And, you know, we keep on repeating this
11 thing about it being exempt from Clean Air, Clean
12 Water, blah-blah-blah, right? But if it's, they
13 know it's so safe, then they can take
14 responsibility for it. No one, except for the
15 person who lives on the land, is going to be
16 holding the bag on this one, and on all the
17 consumers. And I might also say that there are a
18 lot of, a lot of camps in this area that we're
19 talking about, where children go during the
20 summer. And if we want to try to look at how to
21 get more people involved, that's something I'm
22 trying to work on myself right now.

23 CHAIRPERSON GENNARO: Oh, yeah.

24 SUSAN ROSENTHAL: Because some of
25 these people are signing leases.

2 CHAIRPERSON GENNARO: That's
3 interesting, because I--friend of mine in Long
4 Island is a major camp owner, he's got camps all
5 over the state. Interesting, I just - -

6 SUSAN ROSENTHAL: And talk to him.
7 So, you'll hear the same story.

8 CHAIRPERSON GENNARO: Yeah.

9 SUSAN ROSENTHAL: Right? That
10 "Well, you know, if we don't sell--" Look, all
11 these places are in trouble, everyone's in trouble
12 financially, right? So if everyone's signing
13 around, then they feel like it's going to be the
14 same because everyone says fracking is inevitable.
15 And I said everyone's listening to Marian of the
16 Northern Wayne County Alliance. Anyways, but, the
17 point is, is that we may also need to think about
18 how these pe--if we get them to do the right thing
19 and not sign, that they may, there's common law
20 that may be able, they may be able to bring suits
21 [laughs] and sue the people for these violations.
22 So let me just finish up--

23 CHAIRPERSON GENNARO: Please.

24 SUSAN ROSENTHAL: --by saying--

25 CHAIRPERSON GENNARO: Yeah, 'cause

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25

I really have to--

SUSAN ROSENTHAL: You have to go.

CHAIRPERSON GENNARO: --go, yeah.

SUSAN ROSENTHAL: Okay. So, I just wanted to say that, okay, the testimony that the, that, when I was giving testimony before, the farmers were saying they're an endangered species, update townships are dead or a heartbeat away. Some people think that environmental issues focus exclusively on negative outcomes for the Earth, and somehow our fates are not interconnected. Louis Thomas wrote a book in 1978 entitled, "Life of the Cell: Notes of a Biology Watcher." He says "It's not our Earth, our world that is fragile, it is in large part the decisions we make which determine whether the Earth will be able to sustain us human beings." We are the fragile people on the earth and when we look at those pictures of fracking, you can't see the damage we're talking about from these chemicals, and that's why people don't relate to it, says, "Well, it doesn't look like a messy industry." So I'm here to lend whatever kind of support I can, and thank you for your work.

2 CHAIRPERSON GENNARO: Thank you,
3 thank you [applause] for coming here, for bearing
4 witness, and for your remarkable recovery from
5 grave illness, may you have many decades of
6 wonderful health.

7 SUSAN ROSENTHAL: Thank you.

8 CHAIRPERSON GENNARO: Yeah. And,
9 want to thank the rest of the panel for being--Oh,
10 and I think we have one more witness to go, this
11 gentleman, right? Okay, and--in the front row.
12 Sir, did you wish to testify? [off mic comment]
13 Okay, would you like to provide testimony to the
14 Committee? [off mic comment] Yeah, I don't want
15 to put, you know. [off mic comment] If you have
16 some brief remarks, you've stayed all day, least I
17 could do would be to listen. [off mic comment]
18 Well, sit down so that your comments will be on
19 the record.

20 ARNOLD FROGAL: Okay, yes, my name
21 is Arnold Frogal, I'm here as a citizen, just a
22 New York City citizen. I live in Chelsea in
23 Manhattan. I appreciate your efforts Councilman
24 Gennaro on this issue. I really, it's vital, and
25 I've been spreading the word about it myself. I

1
2 was amazed the other day when I read that in the
3 fracking operation, with the massive amounts of
4 water that are used in that, as much as 70 percent
5 of that fracking water often remains underground
6 in the subterranean environment--

7 CHAIRPERSON GENNARO: Yes.

8 ARNOLD FROGAL: --and is never
9 recycled into the hydrological cycle, so it's
10 completely removed from ever subject to
11 evaporation and anything. I just want to say that
12 as far as the govern--the State government is
13 concerned, the primary responsibility of
14 government is the protection of its citizens. And
15 that's what we need here. That is primary. And
16 they've, as somebody said, they've turned their
17 back on us. I endorse the statements that have
18 been made by people who've come her before me. I
19 don't have anything further to add. Thank you.

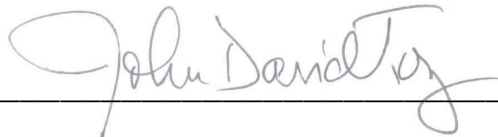
20 CHAIRPERSON GENNARO: Well, thank
21 you, sir, for being here. [applause] And I know
22 that you were here for the last hearing, as well,
23 I do remember you. And I'm very grateful to you
24 and everyone that came before you who came from
25 great distance, who put together very, very

1 helpful testimony and have given greatly of your
2 time and I certainly do appreciate it. And we
3 will do our best to get the word out and to make
4 sure that we get this wrongheaded policy turned
5 around. And sometimes you feel like, "Well, what
6 can I do?" And I'm someone who's Chairman of the
7 Committee for crying out loud, sometimes I have
8 that feeling. And, but, I certainly commit to
9 doing what you are all doing also, which is giving
10 everything we have to make sure we get this
11 wrongheaded policy turned around. And we're not
12 taking no for an answer. This is wrong, this will
13 not stand. And if we're all committed to doing
14 whatever we need to do, then I'm confident that
15 we'll be able to get this thing turned around.
16 And I thank everyone for coming here today. And
17 with no one else wishing to be heard, this hearing
18 is adjourned. [gavel] [applause]

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 black ink and is positioned above a horizontal line that serves as a signature line.

Date November 6, 2009