

CITY COUNCIL
CITY OF NEW YORK

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TRANSCRIPT OF THE MINUTES

of the

COMMITTEE ON ENVIRONMENTAL PROTECTION

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March 1, 2011
Start: 1:50pm
Recess: 6:55pm

HELD AT: Emigrant Savings Bank
49-51 Chambers Street
New York, New York

B E F O R E: James F. Gennaro
Chairperson

COUNCIL MEMBERS:
Elizabeth Crowley
Daniel R. Garodnick
G. Oliver Koppell
Brad Lander
Stephen Levin
Peter F. Vallone, Jr.

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

Samara Swanston
Counsel for the Committee

David Warne
Assistant Commissioner
New York City Department of Environmental Protection

John Williams
New York Water Science Center
U.S. Geological Survey

Brian Rahm
New York State Water Resources Institute

Dusty Horwitt
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Katherine Hudson
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Johanna Dyer
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Dylan Hershkowitz
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Joe Levine
Co-Founder
Damascus Citizens for Sustainability and NYH2O

Alice Zinnes
Member
Damascus Citizens for Sustainability and Sane Energy
Project

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

James Barth
Research Coordinator
Damascus Citizens for Sustainability

David Braun
Co-Founder
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Alan Borodnick
Resident

Daniele Gerard
President
Three Parks Independent Democrats

Eric Weltman
Food & Water Watch

Claire Sandberg
Co-Founder
Frack Action

Julia Walsh
Co-Founder
Frack Action

Shiuho Lin
Member
Gray Panthers NYC

Tracy Carluccio
Delaware Riverkeeper Network

Ellen Peterson-Lewis
Manhattan Community Board 2

Frieda Bradlow
Manhattan Community Board 2

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

Joy Garland
Manhattan Community Board 6

Jeff Galloway
Planning and Community Infrastructure Committee Chair
Manhattan Community Board 1

Buck Moorhead
Co-Founder
NYH2O

Annie Wilson
Energy Committee Chair
Sierra Club

Marion Rose
Croton Watershed Clean Water

Mav Moorhead
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Ken Baer
New York City Group Chair
Sierra Club

Patrick Krug
Chairperson
New York Public Interest Research Group (NYPIRG)

Fay Muir
Croton Watershed Clean Water Coalition

Arden Down
Infrastructure and Environmental Committee
Women's City Club of New York

Stephanie Low
Member
NYH2O

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

Patricia Chernoff
Morningside Friends Meeting

Denise Katzman
Sane Energy Project

Ling Zhou
United for Action

Heidi Gogins
Delaware County Resident and Farmer

Owen Crowley
United for Action

Mary Ellen Crownley
United for Action

Patricia Killen
New Yorkers for Clean Water

Peter Killen
Executive Director
Bay Ridge Consumer Federation

LuAnne Kozma
Don't Frack Michigan

Evelyn Honig
United for Action

Shannon Ayala
United for Action

Arnold Frogel
NYH2O

Charles Olson
United for Action

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

Angela Manno
Resident

Steven Bloomingfeld
Resident

Andrew Lawrence
Resident

Jason Vinci
Resident

Alice Joyce
United for Action

Robert Dereski
Resident

Bonnie Lowenstein
Resident

Bruce Rosen
Resident

CHAIRPERSON GENNARO: Thank you ladies and gentlemen. I am so sorry to be late. I know I felt more wanted than the last couple of minutes all the people calling me. I am sorry that I was delayed. It was most unfortunate, but not something that could be avoided. Thank you all for your patience.

I thank the Council staff that went to great lengths to get this room, and get it all set up for us. The least I could do in those circumstances was to be here on time, but that could not be avoided. They're just making a statement.

This is probably a good of time as any to indicate that we have to have order throughout the entire preceding, or I threaten to be even later next time. [laughter] I don't really don't mean to. I didn't really mean to say that.

And I just going to, kind of, dispense with my long opening remarks which I don't-I won't read from because I have taken up too much of your time already.

But, I will give you a quick

summary of the things that we have been up to. We have had our last of many, many years on this very, very important topic. The Council passed a resolution last September 29 regarding the DRBC rulemaking, asking them not to do that because of the absence of a cumulative impact analysis. They didn't listen to us. Speaker Quinn and myself wrote a letter to the DRBC recently asking that there be a hearing in New York City. The DRBC got back us just the other day indicating that they would think about that, but they can't do that until they convene as a body tomorrow where they will think about that.

I tried my best to reach out the incoming Cuomo Administration in the week after they got elected. They sent a nice letter indicating that they want to be a partner. I want to talk about this; it is very important. I want a meeting, and it's been four months and I haven't got an answer and I don't think I am going to get one.

Wrote to the entire transition team for the Cuomo Administration, all 25 members. Many of them know me well, indicating that myself

1 and this Council would like to be a part of the
2 process as the state goes through in taking a look
3 at this. They are not talking to me either. And I
4 am thinking, "Well, if there is one person you can
5 blame the other person, but I am beginning to
6 think that it is me." And so, if 25 people are
7 not taking to you, it must be me.
8

9 The only person from the Cuomo
10 Transition Team that answered my letter about
11 fracking, I won't take it out now and read from it
12 like I was going to, but his name is Bob Catell,
13 and he's been in the gas business for a long time,
14 now he's, like, an academic now, but he was once
15 upon a time president of U.S. Gas Association or
16 something. Some big shot gas title, and he is a
17 big executive with, you know, Brooklyn Union Gas,
18 so he has a long history in the gas business. And
19 his letter to me, then again I won't take it out
20 and read from it because I want to keep going. Is
21 all the questions that he has about the potential
22 impacts of this on, you know, work quality. And
23 this is the things that need to be studied, so I
24 think that that is very telling, that the one and
25 only person in the Cuomo Administration and the

1
2 Cuomo Transition Team who, you know, took the time
3 to get back to me about this issue is someone who
4 has been more steeped in it than anyone. And, he
5 had a lot questions that he was the first to admit
6 were not answered about this technology. So, I
7 thought that was telling a very candid and a very
8 open, and so I, you know, certainly, appreciate
9 that.

10 This Council is also putting
11 together its own comments, you know, for the DRBC.
12 I would like the opportunity to use what some of
13 you folks bring forward today to be part of out
14 comments. People want me to do that; I'd be happy
15 to do that. It is one of the reasons for having
16 this hearing. I, you know, could also, you know,
17 come and speak for yourselves with the DRBC. I am
18 sure many of you will or already have, but one
19 person that is hearing this for this Council to
20 get best talents to the DRBC that we could
21 possibly get, I need you to help me with that, and
22 in my ongoing quest for, you know, sanity from the
23 state on this issue I will, you know, continue to
24 try to make overtures to the Cuomo Administration.
25 Hopefully, we will be able to, you know,

1
2 penetrate. Like I said. I reached out to, Cuomo,
3 reached out the Transition Team, reach out to Joe
4 Martenz [phonetic], no body is talking to me. And
5 so, but you could talk to me. And so, I certainly
6 appreciate that.

7 Let me talk about some of the good
8 folks that are here. We have Council Member
9 Garodnick we are grateful that he could be here.

10 [applause] Yes Dan. Yes. Dan looks like a young
11 Jim Gennaro, almost; you know he's got that look
12 if you think about him. Oliver Koppell,

13 [off mic comment]

14 No, no, no. Council Member
15 Crowley, and I thank the members for being here
16 for this very special hearing, and I.

17 Without further ado I would like to
18 call the first panel of witnesses. We have
19 Representative from the City's DEP. She's been a
20 really pleasure for me to work with on this issue
21 of fracking and many other things that we have
22 been doing. So I call Deputy Commissioner David
23 Warne of the DEP I believe you can have the very
24 good friend of this committee, Deputy Commissioner
25 Mark Lanegan [phonetic], and we are grateful to

1
2 have DEP in the house today and that panel's is
3 going to followed by the U.S. Geological Survey.
4 Right? We are going to have them next. And then,
5 we are going to have panels of many, many
6 witnesses and thank you all once again for baring
7 with me being late, and I thank this panel.

8 So, the way we are going to proceed
9 with this and all the panels. The counsel to the
10 committee Samara Swanston will, you know, swear in
11 the panel, and the panel will state their names
12 and deliver their testimony, so thanks for being
13 here guys. Samara.

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

18 CHAIRPERSON GENNARO: Okay, thank
19 you I appreciate you being here today, please
20 state your name for the record and then proceed
21 with your testimony. I don't think your
22 microphone is on or something.

23 MR. WARNE: That's better?

24 CHAIRPERSON GENNARO: Okay, and
25 talk right into it. People could hear you better.

1
2 MR. WARNE: Right got it. Thank
3 you Chairman Gennaro, members of the committee.
4 My name is David Warne with the New York City
5 Department of Environmental Protection. While I
6 appreciate the offer of promotion, I am the
7 assistant to the Deputy Commissioner, but I'll
8 take that with appreciation. I am joined today
9 by-

10 CHAIRPERSON GENNARO: [interposing]
11 By the power invested in me, you are now Deputy
12 Commissioner show.

13 [laughter]

14 MR. WARNE: Great. I am joined
15 today by Assistant Commissioner Mark Lanegan for
16 our Bureau of Inter-Governmental Affairs. Thank
17 you for the opportunity to testify on the status
18 of hydrologic factoring in New York.

19 As you know, Mayor Bloomberg just
20 made it clear that New York City is opposed to
21 drilling for natural gas in the city's watershed
22 using the technique known as hydro fracking. The
23 administration based its position on, among other
24 things, the Final Impact Study commissioned by DEP
25 which concluded that natural gas drilling and

1 exploration are incompatible with the operation of
2 New York City's unfiltered water supply system,
3 and pose unacceptable risk for more than 9 million
4 New Yorkers in the City and Upstate.
5

6 Until the technical assessment was
7 complete the administration deferred to take a
8 stand on the advisability of drilling, preferring
9 to instead to be guided by science and
10 technological expertise. Then based on that
11 assessment, the administration called for a
12 prohibition on any drilling in the New York City
13 west of Hudson watershed.

14 At this time there are several
15 activities regarding natural gas development under
16 way that may impact the city's watershed in the
17 future that I'd like to up date on. These
18 activities include first, the New York State Draft
19 Supplemental Generic Environment Impact Statement
20 or SGEIS. Second the DRBC draft regulations on
21 natural gas development, and third the U.S. EPA
22 draft plan to study the potential impacts of
23 hydraulic fracturing on drink water resources. In
24 addition I will comment briefly at the end of my
25 testimony on this weekend's New York Times article

on the contamination related to gas drilling.

DP issued a draft SGEIS for horizontal drilling and high volume hydraulic fracturing in September of 2009. DP's extensive comments on the draft SGEIS reiterated the City's positions sighting the up to 6000 wells required to extract natural gas based on current technology: 7 million truck trips, one million tons of concentrated chemicals, and millions of gallons of waste water all of which are necessities and by products of current extraction methods.

Moreover, we express the concern that hydro fracking is inconsistent with the principles of watershed protection and pollution protection incorporated into the city's filtration avoidance determination. In April 2010, DC announced that individual reviews would be required for natural gas wells in the watersheds of the state's two unfiltered surface water supplies that is New York City and Syracuse. Easiest action recognizes the characteristic of the city's water supply and DC is further committed to work with DEP to craft additional

measures to protect the watershed and the city's infrastructure; however, DP continues to believe based on that best available science and current industry and technological practices that drilling cannot be safely permitted in the city's watershed.

Most recently, in compliance with an executive order issued by Governor Patterson in December of 2010 and confirmed by Governor Cuomo, DC will complete it's review of over 13,000 public comments, make revisions to the draft SGEIS, and publish a revised draft SGIS in June of this year.

They will then accept public comment on the revisions and possibly schedule public hearings in the Marcellus shale region and New York City. No permits to drill will be issued prior to the completion of the final SEGIS and in no case before July 1, 2011, as stated in the executive order.

Meanwhile on December 9, 2010, DRBC released draft of regulations to protect the resources of the Delaware River Basin during construction and operation of natural gas development projects. There is a 90-day public

comment period, which closes on March 16. DP has been actively engaged in this process to ensure that the city mandated water releases are not adversely impacted by withdrawals downstream in the basin. It has commented on several previous versions of the regulations.

Overall DRBC draft regulations are rigorous and comprehensive they strike a good balance to differing to state jurisdictions while still insuring adequate protection to the Delaware River and downstream stakeholders. They provide an additional layer of protection to the city's watershed.

A required natural gas development plans would be a valuable planning tool and allow for more comprehensive reviews of gas development in the Delaware Basin. We will be submitting detailed comments to DRBC urging the decisions about drilling within the shared Delaware River Basin should be made on the same strong analytical foundation as the city's position. And that DRBC should conduct a rigorous analysis of the potential cumulative impacts that natural gas development could have on water quantity and water

quality in the Delaware Basin.

Given what is at stake and the estimates of natural gas wells in the Delaware River Basin numbering in the tens of thousands we request that DRBC conduct a comprehensive cumulative analysis to inform natural gas regulations.

[applause]

We add that such a cumulative impact assessment for the Delaware Basin must also include a depletive water use budget, which is a term of art for the analysis for the total amount of water consumed or lost from a watershed.

Depletive water use has a direct bearing on the basin's future development, water quantity, water quality, ecological health, solidty intrusion, and drought management. This information is also critical for managing the effects of climate change. The water budget must consider secondary impacts to other stakeholders as well the city is concerned about downstream withdrawals impacting the release requirements for its reservoirs. We therefore recommend that the DRBC mandate as a condition of approval that gas

drilling companies take water only during times when the city is not required to make releases as directed by the Delaware River Master to meet mandated flow objectives.

The draft regulations bar the use of Abuse By Rule or ABR which is an expedited review and approval process of a drilling application in the city's watershed. We support this position. Additionally, we request that the non point source pollution control plans be required to be submitted to the city, to New York State, if the project is within the city's watershed. The city has watershed rules and regulations governing storm water that are based on New York State's regulatory program, but in some situations are more stringent. We also recommend the DRBC consider adding post construction requirement covering items such as maintenance of access roads and structural integrity of wells.

The set backs provided in the draft regulation for the surface intake and water supply reservoir are inadequate even given the prohibition sighting the well pad within the 100-

year flood plan. We urge DRBC to reconsider this and specify how this set back is measured.

Horizontal drilling provides a new complication to traditional regulatory setbacks. If the set back is measured from the well pad then the horizontal drilling may occur directly beneath the intake or reservoir. Instead we recommend the set back be measured for the end of the nearest horizontal drilling leg to the resource in question.

Finally given the rapid pace of natural gas development in this region and the constantly evolving technology we urge that the duration for the withdrawal approvals for natural gas extraction purposes be re-evaluated.

Approvals lasting ten years may not give the DRBC or other stakeholders an adequate opportunity to evaluate potential impacts in the context of current environmental conditions and recent technological advances or improved scientific understanding; moreover, ABR provides an opportunity for a docket holder authorized to withdraw water with the purposes to re-locate a portion of its approved withdraw for natural gas extraction purposes without adequate opportunity

for DRBC or other stakeholder to analyze such impacts of such relocation or for DRBC to impose conditions and mitigate such impacts.

The city therefore recommends that no withdrawal approval whether through an original docket or through ABR allow withdrawals for natural gas purposes for longer than 5 years. A copy of our comment letter to DRBC on the DRBC draft regulations will be available on the DEP website when it is completed.

In tandem with the processes going forward at DEC and DRBC, EPA is conducting a study of hydro fracking as well. In late 2010, Congress appropriated 1.9 million dollars for a focused study on this topic, which EPA scientists have undertaken to better understand any potential impacts of hydro fracking on drink water and ground water. EPA consulted with experts in the field through peer review and technical workshops and engaged stakeholders in a dialogue about the study through facilitated public meetings.

EPA recently submitted its draft study plan on hydrologic fracturing for review to the agencies Science Advisory Board, or SAB. The

1 overall purpose of the study is to understand the
2 relationship between hydrologic fracturing and
3 drinking water resources. The scope of the
4 proposed research he full life span of water and
5 hydraulic fracturing from acquisition of the water
6 through the mixing of chemicals and actual
7 fracturing to the post fracturing stage including
8 the management of flow back and produced water and
9 it's ultimate treatment and disposal. SAB plans
10 to review the draft plan on March 7th and 8th,
11 2011. Consistent with the operating procedures of
12 the SAB and opportunity will be provided for
13 stakeholders and the public to provide comments to
14 the SAB during their review. EPA will revise the
15 study plan and respond to the SAB's comments and
16 begin the study. Initial research results are
17 expected at the end of 2012 with the goal for a
18 final report in 2014.

19
20 During the scoping process for the
21 study, DEP submitted the final impact assessment
22 report. Yesterday we submitted comments on the
23 draft study plan. In them we acknowledge the
24 challenge of defining a discrete study plan with
25 the topic as complex as the potential impact of

1
2 hydraulic fracturing. We also point out certain
3 serious omissions in the draft plan as currently
4 written. First the study plan fails to define
5 impact or contamination for the purposes of the
6 study. Because regulations governing water
7 utilities are very conservative the definition of
8 impact should be equally conservative. In order
9 to account for the broad range of potentially
10 negative impacts to a utility from hydraulic
11 fracturing including regulatory, financial,
12 operational, public perception impacts.

13 The issue of cumulative impacts is
14 addressed only for water acquisition and ignored
15 for chemical mixing, well injection flow back and
16 produced water and waste water treatment and
17 disposal. Cumulative impacts from all hydraulic
18 fracturing activities have the potential to be
19 more severe than maybe indicated by analyzing
20 individual wells, and so should be included on the
21 study plan.

22 Second, the plan does not
23 explicitly include an evaluation of state
24 regulation. Given the wide variations on state
25 level there is a strong possibility that the

effectiveness of state regulations have the capacity for inspection enforcement will be a determining factor as in for impacts to water quality and water supply.

The plan repeatedly references the existence of state regulations for certain activities without providing any insight into the adequacy of state efforts to insure compliance with the regulations, or if the regulations themselves are sufficiently protective of drinking water supplies.

Several pages of additional detailed comments were also submitted also supported by the city's final impact assessment report. A copy of DP's comments will also be available on the DP website shortly.

Finally the article in Sunday's Times covered disposal of drilling waste water or flow back water with at particular focus on radioactivity in the water. Radioactive material is found at low levels in the geological formations in the watershed. The radiation contained in flow back water could be a concern as are the many other hazardous chemicals that we

1 know will be present in the flow back. Like most
2 of the contaminates the technology exists to
3 remove radiological contamination, but it is not a
4 part of the conventional wastewater treatment
5 regime.
6

7 Improper handling, storage,
8 transport, or treatment of flow back water can
9 lead to contamination of ground and surface
10 waters. In short, the potential for radiological
11 contamination is just another of the many reason
12 we don't think this activity is appropriate for
13 the watershed.

14 As we hope is evident from this
15 update on hydro fracking at the state, inter-
16 state, and federal levels, the administration is
17 engaged every step of the way. Though the
18 implication of the water supply system remain
19 uncertain, we continue to work to insure the
20 system's integrity and safety. Thank you for the
21 opportunity to comment I will be glad to answer
22 any questions.

23 [applause]

24 CHAIRPERSON GENNARO: Thank you Mr.
25 Warne. Okay, now, because it worked well with DEP

1 they got a round of applause part way through
2 their testimony and one at the end that was kind
3 of willing to let the audience have a little
4 latitude and do that. But, we have to, kind of,
5 keep that down and I want to stay focused, but I
6 thank you for having appreciation of DEP's work,
7 as I do. Before I question the panel I just want
8 to recognize that we are joined by Council Member
9 Levin and Council Member Vallone. We are very
10 grateful to have them with us today, and I, one
11 other housekeeping item, notwithstanding our
12 invite to come and testify at the hearing today we
13 were made aware of the fact that the state DEC was
14 going to be sending someone just to listen to the
15 testimony and don't be afraid I am not going to
16 call you up to testify, by I like that person or
17 persons to make themselves known, just by raising
18 your hand. I just want to know who those persons
19 are. Okay. Fine. I just want to direct staff to
20 get the name of that individual, just so that we
21 know who was here, okay. So if, someone from
22 staff can make that know.

24 Is there anyone here, I am kind of
25 presuming that, that person is from DEC. Anyone

1
2 else representing New York State government today
3 that is in the room? Okay, so we have a pair of
4 ears from the state, that is good, they should
5 hear that. Make sure that they hear everything
6 that we have to say.

7 I just made some notes during your
8 testimony. I thank you for all of the work that
9 you have done on this. Particularly, the large
10 body of science that you dropped in the state's
11 lap at the end of 2009, which was a terrific work,
12 and I thank you for everything that has come
13 since.

14 The bottom of page 2 of your
15 testimony you indicated that you requested DRBC
16 conduct a conference cumulative analysis to inform
17 natural gas regulations. You can't speak for
18 them, certainly, did you get any sense in your
19 conversation with these folks, to the extent that
20 there have been conversations, that there is any
21 kind of receptivity to that concept. What your
22 sense of? And you may or may not have a sense of
23 that, you folks speak what do you think? Do we got
24 a chance here?

25 MR. WARNE: Sure, I mean I was

certainly making sure that the comments we were submitting.

CHAIRPERSON GENNARO: Right

MR. WARNE: At the upcoming deadline. We certainly had conversations with DRBC a number of parties have made this comment to them. They are considering it very strongly. Obviously as you said, I cannot speak for DRBC and I don't want anyone to interpret what I am saying to be representing their position. They have certainly heard that there is significant concern from a number of stakeholders about the assessment of the cumulative impacts and they are considering it seriously.

CHAIRPERSON GENNARO: Okay, good to hear that. They'll be hearing from myself and this Council on that as well. I just wanted to get a sense of what your sense was. What they're thinking.

With regard to the state's process, which you talk about in some detail in your testimony, you know, the process is what it is and I'm, you know, not entirely comfortable with what the process that they are taking. I'm, you know,

1
2 in the midst, you know, of formulating one more
3 attempt of talking to them about process. And to
4 the extent that you could see the process change,
5 or if it were up to you make different--to be able
6 to make a difference in what the state is doing,
7 and what would that be? I am, kind of, like,
8 really, putting you on the spot here, but to the
9 extent that--as they go forward. I mean, to the
10 extent that you had the ability to change the
11 state process, what changes would you make?

12 MR. WARNE: Is the question
13 relating to their process of accepting comments
14 and revising their regs or more in terms of the
15 substance of--

16 CHAIRPERSON GENNARO: [interposing]
17 They really believe that they are going to be able
18 to, you know, come up with, you know, robust, you
19 know, final regs on or about, you know, June. You
20 know, of course that will be subject to more
21 comments, or whatever, and do you think there has
22 been, you know, sufficient science, you know, done
23 that would allow them to have the ability to, you
24 know, do that in a real through way are there
25 other kinds of factors. They're current level of

1
2 staffing that will allow them to really do the
3 robust job needed in, you know, processing all the
4 applications and making sure that the proper
5 enforcement is done, you know. You know, what the
6 state budget is going to look like and, you know,
7 what kinds of cuts DEC is going to take. Nor do I
8 want to, you know, get you into trouble with them.
9 Like you shouldn't do that. If there is any kind
10 of subtleties you think might lead to a better
11 state process. I'd be curious to know that, if
12 you don't want to tell me on the record in front
13 of the world, that'd be okay too.

14 MR. WARNE: I don't want to put
15 myself loosing the promotion that you just gave
16 me.

17 CHAIRPERSON GENNARO: Okay.

18 MR. WARNE: So I am going to be
19 very careful here. I mean obviously we comment
20 extensively on the draft SEGIS, and, you know, I
21 think our comments reflected the concerns in a
22 number of areas, both on the technical substance
23 of the analysis that has been done so far, but
24 also highlighted a number of issues in terms of
25 DEC's ability and process to be able to, you know,

effectively manage and oversee and administer a permanent program I think is a very legitimate concern and question especially with current budgetary limitation about how, you know, their ability to know how to administer a program. They obviously, got a tremendous number of comments from many, many stakeholders. You know, our hope that they are going to when they issue this revised draft, provide ample opportunity for all the stakeholders that are interested to have the time needed to review the revised draft and make another round of comments and hope that they will take those seriously. Obviously, the turnout of today's hearing shows that interest in this topic is not waning and that they need to be in a position to take the input from stakeholders and try to craft that into, you know, the best possible program that they can.

CHAIRPERSON GENNARO: Okay. Let me just change tracks very slightly, we are talking about the state DEC, but with regard to the city DEP has been doing with us a long time which is the filtration avoidance determination which we had for ten years under EPA then after the two

1 first five year segments of that the day to day
2 response of that, you know, went over to the State
3 Department of Health, so they are sort of like.
4 They have the keys to the FAD so to speak, and has
5 the State DOH, kind of, weighed in with you folks,
6 or with DEC on what fracking could, you know,
7 potentially, you know, do to avoidance
8 determination.
9

10 I understand that, you know, State
11 DOH had its own thing and the State DEC has its
12 own thing, but if you have one. Part of state
13 government that's in charge of making sure that
14 the city can continue to meet all the mandates of
15 FAD. What role, if any, state DOH played in this
16 process that you would think would be of some
17 level of concern for them because it directly
18 impacts on the state's FAD. Are they on the
19 radar, or taking to them, or?

20 MR. WARNE: We certainly have had a
21 numerous of conversations with DOH as it relates
22 to the study that we undertook, and the position
23 that we developed based on that study. You know,
24 we have obviously shared all of that information
25 with them, and they have used that I think to help

1
2 guide and develop their concerns. As I know that
3 they've had also direct communication with DEC on
4 this issue, and, you know, we have not been
5 necessarily been part of any three way
6 conversation between DOH and DEC, but they have
7 certainly been communicating. I think that they
8 do have concerns, obviously their purview is that
9 public health protection, water supply protection,
10 and so the have been communicating directly with
11 DEC on those issues.

12 CHAIRPERSON GENNARO: Right, and
13 they would also, presumably be in charge of the
14 FAD for the Syracuse FAD, right?

15 MR. WARNE: That is correct

16 CHAIRPERSON GENNARO: Okay. I just
17 want to get your sense of that and while I
18 formulated the last of my questions to you I want
19 to give the opportunity to my colleague Council
20 Member Vallone who was made a request to pose some
21 questions, and so I recognize Council Member
22 Vallone.

23 COUNCIL MEMBER VALLONE: Thank you
24 Mr. Chair again for calling attention to this
25 topic. I have one question. I sent a letter to

1 the state by some representatives here, and I
2 think we may have sent together. Obviously I
3 oppose any of these actions, but I asked the state
4 if they did allow this, to go for this gas near
5 the water supply. If they were wrong and they
6 harmed our water supply, what would it cost New
7 York City right now if the hydro fracking effected
8 our water supply?
9

10 MR. WARNE: You know, I don't
11 believe we have a—

12 CHAIRPERSON GENNARO: [interposing]
13 Let me just jump in for a second and add something
14 on to the question. My colleague's very good
15 question. On one level make some assumption that
16 there would be the ability to filter out some of
17 this and make a good result out of some bad
18 situation may happen due to fracking, so I just
19 want to put on the table that the part of that
20 assumption that it would just be a matter of
21 dollars to, kind of like, get a set out of this,
22 you know, may or may not be accurate and so I
23 think that Peter's question is actually, I just
24 want to make it clear, and sound like a-. I think
25 the real question worse than the one he asked, so

1
2 I just want to add that component on it. So if I
3 could just stretch the question into, is there
4 even any kind of technology that could exist or
5 one like it, like you know, a grand scale to even
6 do the type of filtration necessary to filter out
7 some of the nasty to use a technical term of
8 things that get into the water, so please,
9 proceed.

10 MR. WARNE: We have not done a
11 detailed technical analysis of the treatment
12 requirements that could be required of the water
13 supply were there to be contamination from natural
14 gas drilling in the watershed. We looked at the
15 issue. We do think that there may be treatment
16 options that are available, but we have not done a
17 revised estimate. Our current estimate for
18 filtration for the Catskill water supply is about
19 \$10 billion for construction of the facility.
20 That is based on some previous estimates that we
21 had based on cost of the Croton Water Filtration
22 Facility that is under construction now. That
23 estimate does not take into account any revised
24 treatment technologies or additional treatment
25 technologies that may need to be added to address

1
2 the specific contaminates that result from
3 hydraulic fracturing, so I don't want anybody to
4 leave thinking that is the number, because we
5 don't have a solid estimate on that right now.

6 CHAIRPERSON GENNARO: What was done
7 was in a pre-fracking, you know, world so to
8 speak. That is where that estimate came from.

9 MR. WARNE: That is correct.

10 CHAIRPERSON GENNARO: Okay. Sorry
11 Peter I didn't mean to jump in there but.

12 COUNCIL MEMBER VALLONE: We are
13 going to need a ten second delay if you keep with
14 that language here.

15 \$10 billion and it may or may not
16 work. What my letter said to the state which they
17 may not have even responded to is just two
18 paragraphs not legalese. If you are going to
19 agree to something like this over our strenuous
20 objection and at a minimum you should guarantee
21 your work. If you screw up, you are liable,
22 state, you are going to have to remedy anything
23 that happens, makes sense right?

24 [applause]

25 CHAIRPERSON GENNARO: Just keep it

down, keep it down. Order.

COUNCIL MEMBER VALLONE: And they haven't even had the dignity or respect to respond to that. But, I think it is fairly simple and I think in any of our negotiations with the state that is something that had to be that always has to remain at the forefront. First of all we opposed this with every fiber of our being, but if you are going to be dumb enough to allow something like this, then you guarantee its safety and you guarantee that are going to be responsible for remedying the situation should something go wrong.

Right now, I mean, they want to have this option and if they screw up we have to spend \$10 billion, which clearly we don't have, so it is typical Albany and I just want to put it out there that I wouldn't have that letter that the Chair has signed on with me, and they have not responded and that is something to keep in mind, so thank you.

CHAIRPERSON GENNARO: Thank you Council Member Vallone. I'm not sure if you were in the room when I began and part of what I began with is all of the correspondence that I have sent

1
2 directly to the governor to Lieutenant Governor
3 Duffy, to all of the Cuomo Transition Team on
4 Energy and Environment, and representatives of the
5 state have not gotten back to me either so, I
6 guess, we are in company of each other, on that
7 score.

8 COUNCIL MEMBER VALLONE: Yeah

9 CHAIRPERSON GENNARO: Feel better
10 now do you. And, I also just want to thank you
11 for critique of, you know, the federal study. I
12 think it is very helpful for people to know some
13 of the issue with that study as well. I think on
14 some level, you know, people are investing a lot
15 of hope that the federal government is going to
16 get this right, and it looks like they are not off
17 to a very good start. And so there has to be a
18 focus of powers as well, and I thank you very much
19 for your testimony today and we will certainly be
20 in close contact as we go forward. Please give my
21 best to Cas Holloway. All the good work that his
22 team has done on this issue from the get go and
23 we're grateful for your presence here today, and I
24 will allow one more round of applause for people
25 from DEP for what they have been doing.

[applause]

MR. WARNE: Thank you Mr. Chairman.

CHAIRPERSON GENNARO: For this panel? Oh pardon me, I was not aware that Council Member Levin wanted to pose a question. I recognize Council Member Levin. If the panel could stay please.

COUNCIL MEMBER LEVIN: Thank you Mr. Chair. There are a couple of quick questions. Could you explain a little bit, what is the administration's position on applicability of DRBC rules in areas where New York State now has current laws like water withdraws?

MR. WARNE: Could you just expand on the question a little bit.

COUNCIL MEMBER LEVIN: What is the administration's position on the applicability of DRBC rules. Permit me to say this: what is the position of the city on, sorry. On the applicability of the rules in the area of the state we now have current laws on like water withdraws, what is the?

MR. WARNE: Our understanding and our position is that DRBC does have regulatory

1 authority over withdrawals that take place within
2 the larger Delaware River Basin, so that they can
3 assert the jurisdiction and impose conditions upon
4 those withdrawals, which, you know, is part of the
5 target of the regulations that they are in the
6 process of developing.
7

8 COUNCIL MEMBER LEVIN: Thank you.

9 Has the city considered proposing a ban on the
10 disposal of fracking waste in wastewater treatment
11 plants within the New York City watershed? Does
12 the city have jurisdiction to do that?

13 MR. WARNE: We. The city operates
14 as small number of wastewater treatment plants in
15 our watershed. They are owned and operated by New
16 York City. We would certainly never consider or,
17 you know, accept any of the drilling waste at the
18 city owned facilities. There are a number of
19 privately owned or municipally owned wastewater
20 treatment plants in the watershed that are
21 regulated by New York State DEC. They operate
22 under speedy permits issued by DEC. They are
23 currently not permitted to accept any of this
24 waste. We would certainly oppose any movement or
25 effort to convert any of those facilities to be

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COUNCIL MEMBER LEVIN:

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MR. WARNE: Potential liability. We have not had any conversation with the Cuomo administration particularly on the liability issue. Our commissioner did meet with the DEC

1
2 commissioner recently, and natural gas drilling
3 was one of the topics under discussion. The
4 liability question was not discussed in any
5 detail, so I really would be speculating if I
6 offered any, any info about what their position is
7 at this point.

8 COUNCIL MEMBER LEVIN: Okay. Are
9 we expecting that they will be taking a position
10 on this? Are we expecting that is going to be part
11 of the dialogue within the next couple of months?
12 Is that an expectation of the city, that the state
13 is going to be addressing that issue or is the
14 city going to press the state to address the
15 issue.

16 MR. WARNE: I think it's definitely
17 an issue that has been raised Council Member
18 Vallone certainly has done so. You know,
19 historically the cost for protecting the water
20 supply have fallen on the ratepayers, the
21 consumers, of the water supply, and this cost-

22 COUNCIL MEMBER LEVIN:
23 [interposing] But do these, I mean on behalf of
24 the ratepayers. DEP operates on the behalf of the
25 ratepayers and legal questions like this the state

1
2 has not replied to Council Member Vallone's
3 letter. So, my question is: is DEC going to be,
4 or is the administration here, I mean, certainly
5 we all appreciate, I think, on behalf of my
6 constituents, ratepayers in New York City we
7 appreciate this administration and DEP's strenuous
8 objections here in standing up for the citizens of
9 New York City. I am just wondering, what are we
10 expecting from them? Are we expecting in response
11 because, obviously, the nice way of going about
12 it, which is what Council Member Vallone tried,
13 did not get any response.

14 MR. WARNE: Yeah. Again I can't
15 speak to whether they indent to respond and I can
16 say that we indent to focus our energies on trying
17 to prevent the activity from occurring in the
18 watershed. And so, I'd rather not turn the
19 conversation to, you know, a what-if. If it does
20 happen in the watershed then we will continue to
21 focus on, we think, the very technical and
22 scientific basis for making the case that this is
23 really not compatible with our water supply
24 operation.

25 COUNCIL MEMBER LEVIN: Can you-

[background noise]

CHAIRPERSON GENNARO: Here is how this is going to go, okay. It is just like we really have to maintain order, and if people shout out they are going to be asked to leave. That is the one and only one warning anyone else speaks up I am going to have the sergeant take them out of the room. I don't want to be impolite, but this is a very friendly panel. I think we are all, kind of, of the same mind. People want to get up and people can say whatever they want from that table, but from the gallery you can't. Next person does it, goes.

COUNCIL MEMBER LEVIN: I just wanted to ask a about radioactivity, Marcellus shale. How does, what are they planning on doing with the radioactive cuttings? How is that, how are they detailing that would be disposed of?

MR. WARNE: I think that issue of disposal of the cuttings and the treatment of the wastewater is a significant open question. It was something that we highlighted in our comments in the SGEIS, indicating that we felt that more work needed to be done more, more clarity needed to be

provided on what the plan was for those waste products from the process. And I think it remains to be seen in the revised draft how they intend to address that.

COUNCIL MEMBER LEVIN: Thank you very much. Thank you Mr. Chairman.

CHAIRPERSON GENNARO: Thank you. Thank you Council Member Levin, and with that said we thank this panel once again. We appreciate you coming here and we have a lot of work to do and we are doing it together. Thank you, we appreciate that.

MR. WARNE: Thank you Mr. Chairman and thank you members.

CHAIRPERSON GENNARO: Let me call the next. We have folks from the U.S. Geological Survey. They have a presentation. I'd like to call John Williams from the USGS.

Normally in our hearings sometimes it is a protocol where the federal government will go first. They are very gracious to, you know, see that to the Bloomberg Administration have DEP testify first, but we are grateful here and let me just announce the panel that is going to. I mean,

1
2 after that there are some folks that came a very
3 long way and have to get back. They have pressing
4 time commitments, so they USGS is going to make
5 it's presentation. Then we folks that have come
6 up from DC, and we have working groups; we have
7 Dusty Horowitz. Al Appleton former DP
8 commissioner; we are happy to have him here, and
9 from Cornell University the New York Water
10 Resources Institute to Doctor Brian looks like
11 Braun. So, on the next panel will be Doctor
12 Braun, Al Appleton, and Dusty Horowitz. And so
13 that will be the panel after the USGS.

14 Thank you so much for being here
15 Counselor, if you could?

16 MS. SWANSTON: Please raise your
17 right hand. Do you swear and affirm to tell the
18 truth, whole truth, and nothing but the truth,
19 today.

20 MR. WILLIAMS: I swear.

21 CHAIRPERSON GENNARO: Thank you.
22 Thank you Mr. Williams we appreciate you being
23 here today.

24 MR. WILLIAMS: Good afternoon. I
25 am service and groundwater specialist for the U.S.

1
2 Geological Survey in the New York Water Science
3 Center. We are based up in Troy, New York. The
4 USGS appreciates the opportunity to provide
5 comments here today.

6 For those who are not familiar with
7 the USGS we are a non-regulatory, scientific
8 organization within the U.S. Department of
9 Interior. In New York State, we conduct a large
10 range of service water and ground water quantity
11 and quality investigations in cooperation with
12 other federal, state, and local agencies.

13 The vast development in the
14 Marcellus, Utica, and other black, organic, rich
15 shales in New York who involve horizontal drilling
16 and hydraulic fracturing. Horizontal drilling and
17 hydraulic fracturing has gone on in New York State
18 for many years, but in this case that horizontal
19 drilling is going to occur in black shales, and is
20 going to occur in multi-well pad sites and the
21 hydraulic fracturing will be high volume hydraulic
22 fracturing involving millions of gallons of water.

23 The draft state regulations provide
24 many, propose many critical measures to help
25 minimize the impact of shale gas development on

the water resources of the state. The DRBC draft regulations make important clarifications, refinements, and enhancement to a number of the water resource protection measures proposed in the state draft regs; however several characterization monitoring and mitigation measures and opportunities related to shell gas development had not address by either the state or DRBC.

A multi-horizontal drilling site will generate more than 500 times the volume of potentially acid mine rating producing pyretic black shale cuttings than from a single well. On site burial of the drill cutting of the shale development site is allowable under the state's draft regs; however, the DRBC states that drill cutting and fluids transported off site and properly disposed of or put to beneficial use.

In up land settings of the Marcellus and Utica shale plate areas shale water may occur in fractured deboning bedrock as deep as 800 feet below land surface. The state regs propose instillation of surface casing and cementing of this casing to land surface to protect these fresh water aquifers of this depth.

Also proposed are submitting the production casing annual to land surface to provide additional protection, and requiring the collection of cement bond logs for each casing strength to help detect and unsubmitted spaces or gaps that may provide pathways for salt water and gas.

Pockets of gas and salt water zones are present above the fresh water aquifer and below the fresh water aquifer. The state regs draft indicates the surface casing should not extend to zones known to contain measurable quantities of shale gas.

It is not clear from the state regs how casing cementing and venting requirement will be modified to deal with these conditions. The state regs does not require a physical logging of the upper part of the gas wells, which may be useful in actually delineating where there is fresh water, where there's gas, and where there's salt water. The DRBC's draft defers to the state regs draft on well construction it provides no clarification on this issue.

Completion records on most gas

1 wells provide little or no information on aquifer
2 conditions above the targeted gas zone. This lack
3 of reporting results in a huge loss of information
4 that would be useful in understanding, protecting
5 the state's ground water resources, neither the
6 state regs or DRBC rectify this situation.

7 Completion forms are needed that require a
8 recording of water quality or quantity with depth
9 would be very useful.

10
11 Surface and ground water are single
12 resource. Up land tributaries are susceptible for
13 impacts for surface and ground water withdrawals
14 under low-flow conditions, both sets of drafts
15 regulations require surface water withdrawals
16 based, for on frack water supply, to be based on
17 low flow statistics.

18 Aquifer testing procedures, so in
19 some cases frack water is going to be withdrawn
20 from ground water rather than surface water and in
21 the state they are not clearly define outside the
22 Susquehanna River Basin. The DRBC regs goes into
23 and defines the procedures and documentation for
24 the Delaware River Basin.

25 The Marcellus shale under land by

1 the Onondaga limestone is overlaying but the Tully
2 limestone in upper Hamilton shales and limestones.
3 These bedrock units are purported to be barriers
4 to fracture propagation from hydrologic fracturing
5 of the Marcellus shale. Although gently dipping
6 and relatively homogeneous in their geophysical
7 properties the bedrock in it display some local
8 and regional variability related to their
9 depositional fasciae changes in structural
10 features such as folds and faults. The integrity
11 of the frack barriers can be investigated through
12 physical investigation including well logging and
13 seismic survey. So here is an example of a very
14 flat lying of rather simple subsurface as opposed
15 to more complex subsurface with folding and
16 faulting going on.

17
18 Although geophysical investigations
19 are commonly depleted in natural gas exploration
20 documentation and frack barrier and continuity and
21 integrity is not required by the draft
22 regulations.

23 Micro seismic is a geophysical
24 method applied by the gas companies to monitor the
25 horizontal and vertical extent of fracture

1
2 propagation during hydraulic fracturing. Data
3 from the gas industry frack suggest the upper
4 vertical extend of hydraulic fractures decrease
5 with decreasing depth of frack heights of about
6 2,000 feet and depth of 8,000 feet and 500 feet of
7 depth of 500 feet. Although micro-seismic is a
8 proven technique that will applied by shale gas
9 development like the industry, mapping the extent
10 of hydraulic fracturing using the this geophysical
11 technique is not required either by the draft
12 state or DRBC regs,

13 The flow back water from hydraulic
14 fracture in the Marcellus shale has been shown to
15 contain elevated solids, chlorides, barium, and
16 other heavy metals, and radio isotopes. The DRBC
17 draft states that all wastewaters must be stored
18 in suitable tanks rather than surface impoundment
19 to prevent the release to the environment. Reuse
20 of flow back water which mitigates the disposal
21 issue reduces fresh water withdrawals is
22 increasing done by the industry and should be
23 considered at all sights. Natural ground water
24 quality in the aquifer zone of Marcellus is highly
25 variable. Natural concentrations of contaminates

1 including, chorine, barium, strontium and radium
2 vary by two magnitude in water sample the wells.
3 With such natural variability documentation and
4 water quality impacts gas drilling and hydraulic
5 fracturing is extremely difficult. Water quality
6 sampling of ground water wells in the vicinity of
7 gas well prior to the development and falling to
8 the drilling and hydraulic fracturing is proposed
9 in the draft statement regs. This water well
10 sampling is in the best interest of the private
11 well owners and the gas companies that provides
12 the mean to determine short term site specific
13 impacts on the existing ground water wells.
14

15 No ground water monitoring is
16 required by the state draft regs if there are no
17 ground water regs in the vicinity of the gas well
18 pad or permission to sample ground water wells is
19 not guaranteed. The DRBC reg states that there is
20 not existing ground water wells available to get
21 gas the company required to install a marring well
22 within 1000 feet the gas well pad.

23 Surface water considered in the
24 state draft regs other than storm run off, but in
25 the DRBC draft regs states that the surface water

quality will be done up gradient and down gradient of the gas well pad.

The water quality data selected during shale gas development would provide an important database in understanding protecting the state's ground water and surface water resources. If made available to government agencies, academia, and other interested parties. And neither the state nor the DRBC draft propose a mechanism for storing and sharing the water quality data during shale gas development.

And finally certain environmental settings are more susceptible to water resource impacts of shale gas development and impacts will not only be site specific but also cumulative. The state draft regs take limited site-by-site regulatory approach. As opposed to the DRBC and their national gas development plan proposal. It is designed for both water resource protection, by taking a broader scale planning base approach. Thank you.

CHAIRPERSON GENARO: Thank you Mr. Williams. We are very, very grateful that we are here today to, you know, share some of the good

1 science of the USGS, you know, partial the
2 geologists, being one myself. But, don't ask me
3 to find the eutectic point on a binary phased
4 diagram. It has been a long time since I did that

5
6 MR. WILLIAMS: Me too.

7 CHAIRPERSON GENNARO: Yeah, okay.
8 Let me. Before I get to it a technical question
9 or comment that I had before I get to testimony.
10 I am just curious about the role of the USGS with
11 regard to the fracking. You know, you have come
12 forth today. You know, you have put together some
13 good science, and we are very grateful for that.
14 Is this something that you already, like, had in
15 your pocket that was done or did you do this by
16 virtue of the fact that you were going to come
17 here today. I am just wondering about, you know,
18 the USGS's institutional posture towards its role
19 in the fracking debate this is something obviously
20 that USGS has made a decision to dedicate some
21 resources to by virtue of your presents here
22 today. I was just wondering about, I guess, how
23 this came to happen. What other policy makers
24 will get the benefit of your good views, and so
25 tell me a little bit about that? How the USGS,

1
2 sort of, you know, came to the table, and I am
3 very glad that you have.

4 MR. WILLIAMS: We basically respond
5 to our cooperators, which are other federal
6 agencies and federal and local. For example, DEP
7 and that has been a response so far, and so far
8 they hasn't been, we got some support from
9 headquarters to make presentations. I mean, I
10 have a colleague in Ithaca, who has made over 100
11 presentations to the public on this. And I
12 myself, have testified to the state, to the
13 Governors Council. I have also presently involved
14 in the EPA study serving on a panel discussion
15 there. So it is something that the USGS feels
16 that we are not an agency that is coming out for
17 or against what we would like to see it the best
18 science and the best technology applied to this.

19 CHAIRPERSON GENNARO: I am
20 certainly very grateful to that, and some of the
21 science that you have put forward is going to be
22 informing what I say on this subject and I am
23 grateful for that.

24 Let me just jump to page 3 of your
25 testimony the third paragraph when you talk about

1 the micro-seismic and let's see the second
2 sentence, "data from the gas industry," I am
3 reading from your statement from Marcellus frack
4 "the vertical extent of hydraulic fractures
5 decreases with decreasing depth" and based on what
6 comes after that do you mean increases with
7 decreasing depth.
8

9 MR. WILLIAMS: So I basically look
10 at this graph here there is-

11 CHAIRPERSON GENNARO: [interposing]
12 That's what you mean right? 'Cause what you said,
13 is that when you are at 8000 feet of depth you
14 have frack heights that go 2000 feet

15 MR. WILLIAMS: Correct 2000 feet.

16 CHAIRPERSON GENNARO: And then at
17 5000 feet depth a shallower depth you have a
18 shallower

19 MR. WILLIAMS: 500 feet.

20 CHAIRPERSON GENNARO: frack height.
21 Which seems almost counterintuitive because you
22 think that the further down you go the more head
23 there is. Could you like as a geologist, kind of
24 like, let me in or something?

25 MR. WILLIAMS: Right. So it is all

dependent on the over burden pressure, so if you are down 8000 feet you've got over burden pressures that are pushing down.

CHAIRPERSON GENNARO: Right.

MR. WILLIAMS: Okay, then at a shallower depth those pressures are less, so what happens at a greater depth the fractures go vertical more than they go horizontal. At a shallower depth there is less pressure to push-

CHAIRPERSON GENNARO: [interposing]

Oh I see.

MR. WILLIAMS: -the bedding planes and everything so a lot of the stuff

CHAIRPERSON GENNARO: [interposing]

Oh I see.

MR. WILLIAMS: Goes horizontal.

CHAIRPERSON GENNARO: Right, right, right. Okay. So now, it makes a little more sense to me. But I needed to have that clarified and you did that and I certainly want to, you know, this is now an official area of inquiry for me to make sure some of the good things that you said I haven't hear other people say. They don't have the scientific ability to say them like you

1
2 do, now that I know that these things are being
3 said to the regulators that matter, then I will do
4 my best to get them to defend their judgments that
5 they ultimately make that may fly in the face of
6 what you say here. There are, you know, going to
7 have to, try to get them to give an explanation to
8 me while some of this good science was not heeded.

9 So, I am really grateful for your
10 presence here today, Mr. Williams and unlike me
11 you studied to be a good geologist, and unlike me
12 you actually did it, as opposed to me studying to
13 be a good geologist and I was on the precipice of
14 a good career when I ended up doing this.

15 [laughter]

16 CHAIRPERSON GENNARO: I got off
17 track somehow.

18 MR. WILLIAMS: There is always the
19 second career.

20 CHAIRPERSON GENNARO: Yeah, yeah.
21 And Council Member Levin has a question for Mr.
22 Williams. I recognize Council Member Levin.

23 COUNCIL MEMBER LEVIN: Thank you
24 Mr. Chairman. I actually have two questions.
25 First one, you mentioned in your testimony that

the draft state reg cuttings and fluids are to be transferred offsite and be disposed of or put to beneficial use. What would the beneficial use be?

MR. WILLIAMS: That is an interesting question that actually I am aware of one study of trying to, you know, see if it useful for fill or road, roadwork or something like that. My thought is anything with the pyrite content it would be, I can't think of any beneficial use. But that was the word in the regs.

COUNCIL MEMBER LEVIN: Right, right got it. I don't mean that. Maybe that is question is best-

MR. WILLIAMS: To them what they meant by that.

COUNCIL MEMBER LEVIN: But it just seems a little bit if it's that hazardous then.

MR. WILLIAMS: Yes, why are we putting it back on our roads. Yep, I totally agree.

COUNCIL MEMBER LEVIN: It didn't seem very beneficial. And my other question with regard to the EPA study, now that's suppose to produce, I guess and interim report in 2012 and a

1
2 final report in 2014. Doesn't it seem prudent to,
3 kind of, wait? I mean would it be advisable for
4 the state to wait and continue the moratorium at
5 least until the interim findings, more
6 appropriately for the final findings to be
7 released so we have an authoritative study from
8 the EPA and from the federal government that
9 would, kind of, quantify a lot of this stuff.
10 Does it seem advisable to wait? Do we need that
11 information? Would the DEC or the Governor's
12 Administration be well advised to have that
13 information in handy to make that determination.

14 MR. WILLIAMS: That is really a
15 policy question. I'd rather not answer that.

16 COUNCIL MEMBER LEVIN: Okay, okay.
17 And again maybe that is addressed to them. Thank
18 you very much.

19 MR. WILLIAMS: Thank you.

20 MS. SWANSTON: Asked me to call the
21 next panel Al Appleton, Dusty Horowitz, and Dr.
22 Brian Rahm from the New York State Water
23 Institute. Can you please come have a seat at the
24 table?

25 CHAIRPERSON GENNARO: And while

1
2 this panel is getting situated. I'll take this
3 opportunity to call, I guess, the next two panels,
4 just so they know that they're on deck. The panel
5 after this will have Catskill Mountain Keeper,
6 that's Dylan Hershkowitz. Joanna Dyre the NRDC,
7 Kate Hudson from Riverkeeper, John Goode from
8 Union of Concerned Scientist.

9 The panel after that my friend, Joe
10 Levine from NYH20, Alice Zinnes, looks like
11 Damascus Citizens, David Braun, United for Action,
12 and James Barth also Damascus Citizen. So those
13 are next to panels I asked the counsel to swear in
14 this panel.

15 MS. SWANSTON: Gentlemen would you
16 please raise your right hand. Do you swear or
17 affirm to tell the truth, the whole truth, and
18 nothing but the truth, today.

19 MULTIPLE SPEAKERS: I do.

20 CHAIRPERSON GENNARO: Thank you.
21 Thank you all very much for being here. Let me
22 get my papers straight, so I know which panel I am
23 talking to right now. When you're up here, there
24 is paper work. So, I am grateful to all of you.
25 Okay, the first statement I have here is from

Brian Rahm, why done we have Brian go first.

Okay, great. Please state you name for the record and proceed with your testimony.

DOCTOR RAHM: My name is Brian Rahm. I am coming here from New York State Water Resources Institute, which is at Cornell University. Alright. So, thank you for the opportunity to participate in this discussion.

Natural gas extraction via high volume hydraulic fracturing is now an issue that New York and its neighbors are facing. In New York, there will likely be some economic benefit as well as some negative social and environmental consequence. It is complicate. That being said this testimony is offered under the assumption that gas drilling in unconventional shale plates like the Marcellus will be allowed in New York within the next year or so. Given this assumption, it is critically important that New York prepares itself for the creation of reasonable and protective regulations that balance the needs and perspectives of the various stakeholders involved. It is also critically important for scientists and engineers to attempt

1
2 to understand how research can help policy makers
3 craft effective legislation and to continue to
4 carry our research that help improves shale gas
5 exploration while enhancing our ability to
6 understand and minimize their impacts. The
7 following comments I will focus solely on the
8 draft regulation proposed by the DRBC.

9 Alright so, in general the DRBC
10 draft regulations seem to combine protective
11 elements of both New York and Pennsylvania state
12 regulations, within the Delaware River Basin,
13 while deferring authority, in most cases, to each
14 state's main environmental regulatory agency. As
15 the DEP stated before, we think that this is the
16 right approach. That being said, there are
17 several areas that could be improved in order to
18 increase the protectiveness of proposed
19 regulations. Now I have a list of specific
20 comments that show exactly where in the DRBC
21 regulations we're talking about, but I won't say
22 that exactly. I

23 CHAIRPERSON GENNARO: You could
24 summarize. It is quite lengthy your statement.
25 So if you could summarize that that would be

great.

DOCTOR RAHM: Alright. Our first comment is on pass by flow requirement. Pass by flow requirements are important to insure adequate quantities of water for all human and ecological uses. We recommend that the DRBC establish a more stringent default pass by flow than the one that they currently state, that explicitly accounts for ecological stream health such as the one used by the New York ECSA, particularly in upstream head waters that are more sensitive to perturbation.

We have a comment on pollution control plans and the DRBC regulations, where WRI recommends that the DRBC consider requiring secondary containment measures for chemicals and other hazardous liquids stored at well pads. We've been looking at some of the violations that are available on record in Pennsylvania and they reveal that some of the more common violations for operators have to do with spills and leaks that occur at the well site at the well surface itself, and that is a concern that we have for New York as well.

We have a comment on the proposed

1
2 natural gas development plans that the DRBC
3 discusses. We support the concept of these plans
4 and their goal of minimizing their water resource
5 impacts, but recommend that the DRBC critically
6 reevaluate how the draft regulations will actually
7 achieve this. They do ask that developers do some
8 extensive mapping exercises, but they don't
9 explicitly require any real planning when it comes
10 to water resources or show how it is that this
11 plan will actually minimize effects of operations.

12 As some other people have said we
13 support the ground water and surface monitoring
14 proposals that the DRBC makes but recommend that
15 specific parameters be at least publicized. I
16 believe, the gentleman from USGS just talked about
17 the potential for creating a publicly available
18 water quality database or for somehow making this
19 data available. We think that is of use to broad
20 stakeholders including researchers and regulators,
21 etcetera.

22 WRI also recommends with the help
23 of toxicologist DRBC consider banning or otherwise
24 discouraging the use of some of the most hazardous
25 chemicals for example, diesel and phenol based

1
2 surfactants. As far as their waste water
3 treatment disposal plan WRI recommends that the
4 DRBC consider prohibiting the direct acceptance of
5 shale gas waste waters by public owned treatment
6 works, which is something that Pennsylvania
7 recently enacted, not entirely, but that's the
8 approach of some of their new regulations that we
9 think are a little more stringent and should be
10 favored in New York as a conservative approach,
11 rather than. Well as conservative approach of
12 wastewaters.

13 And finally we have a statement on
14 remote water quality monitoring. The Susquehanna
15 River Basin has, with funding from industry and
16 state agencies, established a remote quality
17 network that tracks basic water quality parameters
18 at various locations throughout their basin. This
19 serves to establish water quality baseline and
20 highlights potential changes in water quality over
21 time that may result in cumulative development
22 activities which is something that we heard as a
23 concern here today.

24 We recommend that DRBC consider
25 instituting a remote monitoring program possibly

1
2 with partners like industry or other state
3 agencies. Specifically designed to track
4 cumulative water quality impacts throughout the
5 basin. Thanks for your time.

6 CHAIRPERSON GENNARO: Thank you.
7 Thank you Mr. Rahm and at the close of the panel
8 I'll have questions and comments for you on your
9 statement and those of the other panelists. And
10 next statement I have on this panel is from the
11 Environmental Working Group, so why don't we hear
12 from Mr. oh pardon, I pronounced your name wrong
13 it looks like Horwitt, right?

14 MR. HORWITT: That is right.

15 Okay. Please state your name and
16 proceed.

17 MR. HORWITT: Thank you Mr.
18 Chairman. My name is Dusty Horwitt and I am
19 Senior Council with Environmental Working Group.
20 We are a Washington DC based research and advocacy
21 organization and we are please to be back here-

22 CHAIRPERSON GENNARO: [interposing]
23 Yes

24 MR. HORWITT: -testifying in New
25 York City Council-

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CHAIRPERSON GENNARO: [interposing]

Thank you for coming again.

MR. HORWITT: Thank you. We think that it is important to be here and not just because this issue is so critical to so many people, but also because your leadership has helped avert the kind of wide spread environmental contamination that we see just across the border in Pennsylvania, and so we would want to commend you for making the difference here.

[applause]

CHAIRPERSON GENNARO: Thank you, stop, stop, stop. Most appreciated but please continue.

MR. HORWITT: In our, I'll try to be brief. You know previous testimony we warned about the risk of natural gas drilling and have advised that natural gas drilling not be permitted near New York City's water supply or near water supplies elsewhere in New York State. We stand by our previous statements and our concern is only grown due to the New York Times investigation Sunday. The recent congressional investigation on diesel and hydraulic fracturing in our own ongoing

research.

With these dates approaching for the issuance, of the close of comments for the DRBC and the possible issuance of regs by New York State, we are concerned that's by issuing regs either of these bodies will allow a continue violation of federal law of the Treatment Water Act. They will allow drilling too close to water and that they will issue regulations before regulators could adequately mitigate risk or even know what the risk are.

First we want to emphasis that neither the DRBC nor New York State should issue any regulations while the industry appears to be violating with impunity the Safe Drinking Water Act's requirement that the industry receive a permit before it injects diesel fuel in hydraulic fracturing. The Safe Drinking Water Act is intended to protect, in large part, underground sources of drinking water. In 2005 is when you know congress amended the act to largely exempt hydraulic fracturing except hydraulic fracturing with diesel. Congress likely singled out these diesel because EPA has highlighted diesel as the

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2 contaminate of greatest concern in hydraulic
3 fracturing because it contains benzene, toluene,
4 ethyl-benzene, and zeilone, which are very
5 dangerous chemicals, toxic in water at very low
6 levels. We highlighted this provision of the law
7 in our 2010 report, Drilling Around the Law, and
8 we found that companies were injecting diesel and
9 other similar petroleum distillates in a number of
10 different places around the country. A
11 congressional investigation, just this year,
12 followed up on that work and found that the
13 industry in fact had been injecting diesel in 19
14 different state 32 million gallons of diesel or
15 diesel waste hydraulic fracturing fluids all over
16 the country and had not received any permits as
17 required by the Safe Drinking Water Act. You
18 know, having flouted major federal environmental
19 law the industry now wants to drill in the
20 Delaware River Basin in New York State. This is
21 an area that provides drinking water for millions
22 of people and the only conceivable answer to the
23 industry's request is no.

24 [applause]

25 MR. HORWITT: To allow the industry

to drill.

CHAIRPERSON GENNARO: Stop, stop, stop.

MR. HORWITT: To allow the industry to drill would be to reward its blatant disregard of major federal environmental law and to put the health of millions of people at risk. We can't do this until the EPA and the industry show that they are going to comply with the Safe Drinking Water Act and the EPA shows that they have the means to enforce that critical law.

We are also concerned about they setback requirements in the Delaware River Basin Commission proposal regs. In a number of cases, in the case of drilling near water bodies, wetlands, surface water supply intakes, and water supply reservoirs the Delaware River Basin Commission has a minimum setback requirement of 500 feet that is far too close. And we do agree with the DEP that the setback should be farthest extent from the horizontal leg of the well but we've seen a case in Garfield County, Colorado where a well was improperly cemented and then fractured. This was in 2004, and natural gas came

up from 7000 feet from underground and then veered 3500 feet horizontally where it contaminated a creek, know as Divide Creek, with high levels of benzene about 20 times the drinking water standard. And even four years later and perhaps even today they company is still having to remediate the contamination in that creek that lateral distance is 7 times the setback requirement in the DRBC proposed reg.

Just a couple of other quick points. We are concerned about the other evidence that has come to light recently in the New York Times investigation that found a massive regulatory failure in the state of Pennsylvania regarding wastewater from drilling operations. We have deep concerns that the outcome will be better in the Delaware River Basin. There are also some ongoing studies by EPA there is of course the national EPA study on hydraulic fracturing and also perhaps a lesser known study that the EPA is conducting in Pavillion, Wyoming of a drilling, natural gas drilling area and drink water supplies. They have already found contaminates of concern on the water supplies of Pavillion,

1 Wyoming. They can't conclusively link it to
2 drilling yet, but the Health and Human Services
3 Department, which has been working with the EPA,
4 has told residents in Pavillion, Wyoming not to
5 drink their water, their well water there. So in
6 light of this ongoing evidence, these ongoing
7 studies, it would be premature to issue
8 regulations and to allow drilling until we at
9 least see what the EPA concludes in these
10 investigations. Although we do have concerns
11 based on EPA's past experience of about how
12 scientifically rigorous they'll be.
13

14 So just to wrap up, we still think
15 that the natural gas drilling process is too
16 inherently risky to conduct near water supplies
17 and we would like to see a clear statement by EPA
18 industry that they are going to abide by the safe
19 drinking water act and we would like to see the
20 studies at least come to a conclusion before any
21 drilling is allowed.

22 CHAIRPERSON GENNARO: Thank you.
23 Thank you very much Mr. Horwitt, please, please,
24 please. I'll make some questions and comments
25 regarding your statement after Mr. Appleton has an

1 opportunity to make his statement.

2 And so we are very, very, you know,
3 grateful to have Al with us here today. Friends
4 for a long time, and we are very grateful for the
5 partnership has not only shown me, but to my staff
6 as we try to navigate this whole thing. And it's,
7 so but, I didn't ask you here for me to talk to
8 you, I asked you here for you to talk to me, so
9 why don't I let you do that and state your name
10 for the record, and commence your testimony. And
11 also, I figure, we don't have a statement do I
12 figure you are going to be talking to us. Right?
13 Okay. Please. You have to hit that button.

14 MR. APPLETON: I will file with you
15 the statements I am going to be making for the
16 DRBC and to the State of New York. I actually
17 very happy to be with these two panelists here
18 Cornell Institute of Water is a partner when we
19 set up the watershed program in the early 1990s
20 from much of whose experience informs my reaction
21 to these proposals today. And, the Environmental
22 Working Group deserves and enormous amount of
23 credit for being one of the principle needles that
24 is pricked the balloon of the natural gas public
25

1
2 relations that there is nobody here that is doing
3 anything wrong.

4 Now it is three years since we have
5 beating this issue up, what have we learned. Well
6 we learned that we don't have a very nice industry
7 to work with and one of the things, if you work on
8 regulations as I did in creating the watershed and
9 others, is that you know that ultimately an
10 industry that does not want to be regulated is
11 going to be huge problem. I have done some work
12 for the natural gas industry in Canada, they are
13 showing a much more realistic, the still believe
14 in fracking, they are showing a much more
15 realistic approach to these problems, but we have
16 an industry whose only answer is to have bigger
17 and bigger PR budgets and that has to have an
18 influence on us in terms of how we approach these
19 things, because the industrial culture is one of
20 get the product out make the money and we will
21 make so much money that no one will really care
22 about the damage we are doing. So it is that
23 industrial culture that we will have to really
24 start with when you think about these problems.
25 When we look at something like the EPA study or we

1
2 talk about the regulations, you are not going to
3 here a lot of specifics from me today about
4 regulations design, Jim, because the truth of the
5 matter is that the first problem is that we design
6 regulations fairly well but if they are not
7 enforced they're meaningless. In fact, they are
8 worse than meaningless they are almost a deception
9 to the consumer. There is no

10 [applause]

11 MR. APPLETON: There is no
12 capability in either the DRBC or DEC in New York
13 State to enforce any of the regulations they are
14 talking about. That is, until these institutions
15 create effective enforcement capabilities, there
16 should be no gas drilling allowed because we will
17 get the damage we see. When we set up to protect
18 the watershed, we ultimately created a scientific
19 and enforcement staff over 400 people. We are
20 talking about in both the Delaware River Basin and
21 in the State of New York of at least that level of
22 capability and it should be legislation in both
23 Pennsylvania and New York that says until that
24 capability is created no permits should be
25 granted. So far, that is not happening. The gas

1
2 industry should be told that this is the price of
3 doing business and they should pay for it. The
4 regulations should be in place enforced though
5 fees natural gas activity and on severance taxes.

6 Now, let's talk about the DRBC for
7 a second. I personally feel that far too much of
8 the debate around the DRBC is revolved around the
9 regulations not enough is revolved around whether
10 any drilling should be allowed at all, in the
11 Delaware River Basin Commission.

12 Obviously, I am in favor of well
13 designed and effective regulations, but if look
14 what is on the record in front of the DRBC, the
15 Hazen Sawyer study, the industry's record in
16 Pennsylvania, the documentation that Environmental
17 Working Group, and others have provided it is not
18 clear to me that in terms in standard of
19 administrative law that a reasonable basis that
20 there is any authority in the DRBC to allow any
21 permitting whatsoever, and when you add the fact
22 that there is no enforcement for the regulations
23 plus the fact that the DRBC director herself has
24 said that we must have a comprehensive study
25 before we make regulations. As I say, I have the

1
2 gravest of doubts that we should be talking about
3 regulation content at all until we first settled
4 this issue about whether or not the could issue
5 any authority to do drilling in the Delaware River
6 Basin.

7 Remember the Delaware River Basin
8 provides the water for 15 million people in New
9 York, New Jersey, Pennsylvania, and Delaware.

10 This not a resource worth lightly. The value of
11 this resource dwarfs any of even the industry's
12 most utopian protect of how much money they are
13 going to provide.

14 Now the DRBC has danced around the
15 issue of whether it will do a comprehensive study.
16 And when pushed to it they could talk about how
17 they do not have the funding to do so. The truth
18 of the matter is the every regulator always has
19 the authority to require from any permit applicant
20 all the information that applicant needs to
21 justify the case that a permit should be granted.
22 To put that in English the DRBC can require all
23 the gas company that wish to drill to fund this
24 comprehensive environmental impact statement, and
25 their failure to do so is really a very

1
2 significant failure of leadership on their part.
3 Whatever else what one might say on the details,
4 the fact that this study is not being forced as a
5 precondition really speaks volumes about the
6 expectations that we would wind up having if
7 drilling is allow in the DRB under it's current
8 conditions.

9 Let me turn now to New York and New
10 York City. First of all, please pass my
11 compliments to Council Member Vallone for his
12 joining with you on the suggestion on liability I
13 think that should go on the legislative list for
14 the State of New York as well. But it should not
15 just be New York, the questions that you are
16 asking and the responses that you are getting
17 suggest that these cost could be applied to
18 Elmira, Binghamton, Rochester, Syracuse,
19 Cooperstown, many of the areas of upstate New York
20 that have municipal well pads. All of them could
21 be polluted as the cost of hundreds of millions or
22 even billions of dollars.

23 The state of New York is that
24 certain that there is not public health risk they
25 should be willing to put their money where their

1
2 mouth is and if the state does not want to assume
3 this they could require the industry to set up a
4 fund to do so, and the industry can deposit the
5 money in escrow and, you know, live off the
6 interest for a while.

7 Again, DEC has the same problem,
8 with enforcement there is no enforcement
9 capability in DC to handle hundreds if not
10 thousands of well applications. Just as a
11 starter, there should be people on site watching
12 the concrete pour, because the concrete pours is
13 the biggest single vulnerability to the shallow
14 aquifers that are water resources. Who is going
15 to measure if the suggestion that the right
16 setback depends upon the length of the horizontal
17 frack how long before the horizontal frack is
18 going to be. I have along experience in
19 regulation. People, if they know the regulations
20 will be enforced they will live by them, but if
21 they know the regulations would not be enforced,
22 they will cheat; it is as simple as that, and there
23 is no surprise to any of us.

24 Now, what about IS process? There
25 is enough material in the 14,000 comments that

1
2 were files for DEC to do it right with a couple of
3 exceptions that I will get to, but to do it right
4 in that complicated a task does not mean they
5 publish a regulations and give people a couple of
6 months to comment and go home. I think that we
7 are going to need one more round of review in this
8 process to get all of this material right. And
9 DEC should be willing to do so given the
10 implications of this for, you know, the long term
11 New York landscape and economy, and there are
12 three issue where quite frankly I am concerned
13 they may not get it right. First of all there
14 were hundreds of comments calling for a
15 comprehensive EIS. I do not see how give what I
16 know about the review procedure, DEC has done this
17 comprehensive landscape valuation of the impacts
18 of drilling that may have to begin another
19 supplemental if this document is to pass review.

20 Secondly there has been a tendency
21 to ignore, as lead to the geological testimony,
22 the long term problem of migration of fracking
23 material deep down in the ground, and the industry
24 likes to say that that in no instance shed this
25 material polluting water supplies. Well, that is

all been down there 600 million years, so after 4 years I wouldn't draw any conclusions about the long term future of this pollution. The Hazen Sawyer Study documented the many underground fissures and possibilities for movement.

CHAIRPERSON GENNARO: When you talk about the Hazen Report you mean the work that was done by BP.

MR. APPLETON: Precisely

CHAIRPERSON GENNARO: That was submitted to the state as comments at the end of 2005.

MR. APPLETON: Precisely, that work document great. That the pictures there is an impervious ground layer sealing this off from the surface is far from accurate, in terms of the geology we are dealing with.

Lastly, I want to talk about the fact that it is not just New York's problem, and I want to focus on what you said earlier about we are talking about filtration plus fracking filtration that is not only a problem for us that is a problem for water supplies who already have filtration. But, what I wanted to use this

1
2 opportunity for is to draw your attention to the
3 time line because of their relatively small
4 amounts of this materials that can pollute the
5 water supply, it is very easy to support a
6 scenario in which two, three, four years, you are
7 looking at major trouble. But, we know that you
8 cannot build filtration even on an emergency basis
9 in two, three, four years, so it is not just a
10 question of will be have to filter; it is a
11 question of whether or not we can get the
12 filtration in place in time to safely protect out
13 water supplies, and that is a question not only
14 for us it is a question for every water system
15 that uses surface water in the Marcellus shale
16 area.

17 In closing, I hope in this debate
18 we have in mind three things. First of all, it is
19 about pollution and it is about public health this
20 is not a balancing issue between how much public
21 health we are willing to risk for how much natural
22 gas money. Second, I hope, we tend to overlook
23 that fact that this will be horribly destructive
24 to landscapes, even if we can solve many of the
25 pollution problems that water purifying

1 capabilities of these landscape will be inevitably
2 and irrevocably compromised, and that is true of
3 our watershed it is true of the Delaware River
4 Basin. It is true if Elmira. It is true of
5 Binghamton. It is true of all these places.

6
7 And finally I hope we keep in mind
8 that the economic benefits that are claimed for
9 natural gas really don't exist. You read the
10 Financial Times on a regular basis they say that
11 they need to make \$6 to \$7 per TCF to make this
12 work. They are making 4 right now. So what is
13 happening? They want the subsidy with no
14 regulatory enforcement. They want the subsidies
15 Boone Pickens is proposing natural gas burning
16 cars, and the federal government for natural gas
17 using infrastructure. They want the subsidies of
18 port facilities to export this gas to China
19 because it cannot sell it in the United States.
20 Where those subsidies should go is into green
21 energy.

22 [applause]

23 MR. APPLETON: Andrew Cuomo second
24 volume of his campaign papers was devoted to green
25 energy as the foundation of New York's future

economy.

CHAIRPERSON GENNARO: Who wrote that paper? I'm sorry.

MR. APPLETON: Andrew Cuomo. It is one of his campaign papers. [laughter] We are same page folks.

CHAIRPERSON GENNARO: I wasn't being funny when I said that I just, because there was some clapping I didn't hear what you said.

MR. APPLETON: Right.

CHAIRPERSON GENNARO: And so it ended up being funny, but I didn't start out for it to be funny.

MR. APPLETON: Well there is a certain irony in that we are spending a trillion dollars and going back to the past with the natural fossil fuel economy. We spend less money than that going into the future with a green energy economy. So I urge us all not to get too bogged down debating the details of regulation and to remember these larger issues of economic and environmental and social policy.

I do not support a ban, but I am getting less and less opposed to one because of

1
2 the conduct of the industry and because of the
3 economics, but what I do support is taking
4 Governor Cuomo's campaign statement seriously that
5 we should start with making all of our watersheds,
6 all plural, sacrosanct, and then let's see as it
7 has been posed elsewhere in this hearing the
8 industry can show it can safely operate in the
9 rest. Thank you.

10 [applause]

11 CHAIRPERSON GENNARO: Thank you.

12 [applause]

13 CHAIRPERSON GENNARO: Let me start
14 with Mr. Appleton. Because I have been in this
15 business a long time now I, you know, am trying to
16 take a picture focus on this also and not sweat
17 some of the details of this regulation verses that
18 regulation. 'Cause I, while that is not a bad
19 thing to talk about, I just feel like I have to
20 make the best impact that I can possibly make and
21 I don't think that it's debating those details,
22 and I think along the lines of what you said, Al,
23 and Mr. Horowitt, and I am very grateful for Mr.
24 Rahm to be here as well the work a Cornell.

25 But there are many entities and it

1 is not meant as a criticize to anybody but there
2 are great organization that, you know, might come
3 to this debate and say we are going to put forward
4 a whole bunch of brainwaves based on the
5 assumption that this is going to happen very, very
6 soon and given that, you know, we should scramble
7 to do this and that and try to like make the best
8 of the circumstance as we go over the cliff, and
9 while those are probably, you know, good
10 brainwaves to be put forward, I think I, you know,
11 need, you know, all of the common sense folks who
12 have the ability to make the case that we just
13 should be doing this right now based on this,
14 this, and this. I need that case to be made by
15 everyone that could possibly make it and that is,
16 like, not exactly happening and that could be for
17 many reasons, you know. It is not really their
18 charter to, kind of, go and do that, or, you know
19 they might get in trouble, you know their state
20 funding, you know who knows, like, the world is a
21 very complicated place. But I don't you know
22 criticize folks who can't for whatever reason put
23 themselves in a situation where they get total
24 jammed up, and then they are like, no good to
25

1
2 anybody and I know what that is like, but people
3 that, you know, have the ability to, kind of, say
4 what really needs to be said, that is what I think
5 I need to hear, what would be helpful to me. And
6 this panel has done a good job of that.

7 But let me just ask Mr. Rahm, and
8 again I don't mean to be critical and I don't mean
9 to jam anybody up but Cornell is coming into this
10 like the New York State Water Resource Institute.
11 The testimony being offered under the assumption
12 that gas drilling in these shale plate is going,
13 you know, go forward. Does Cornell have the
14 ability or is it, you know, looking to or could it
15 formulate some kind of statement as to whether or
16 not it thinks that this is a good idea to do so,
17 or is that violate some box that Cornell has to,
18 kind of, situated in, and I understand boxes I
19 have been in many, you know, but this is what I am
20 getting at, Cornell is a big outfit, you know, and
21 people listen and not everyone listens to me, but
22 if Cornell were to write a letter to Governor
23 Cuomo I think that you get a response.

24 DOCTOR RAHM: I guess I would say-

25 CHAIRPERSON GENNARO: [interposing]

Now that I made you sorry that you came all the way here from Ithaca.

DOCTOR RAHM: I think that you-

CHAIRPERSON GENNARO: [interposing]
I am not a nice guy and I kind of apologize.

DOCTOR RAHM: the truth is that there is no way I could say that I speak for Cornell, you know. My team is three people essentially, and within Cornell there are various perspectives on this issue. There are petroleum geologists that think this is, you know, sort of something that we do. There are other people who, you know think that we probably shouldn't be doing this at all in New York, and those voices all sort of have their say and the ones that feel that way certainly do get involved and do thing like, you know, like write to government agencies try to put those perspectives forward in a variety of ways, so. I think that is being done I guess our group-

CHAIRPERSON GENNARO: [interposing]
That's good.

DOCTOR RAHM: -our group will also view this in the sense, you know, it particularly in Pennsylvania maybe also for the Delaware River

1 Basin Commission, this is something that is
2 already happening, so New York has sort of a
3 positions that we get the chance to sit back and
4 decide and if we do go ahead and hopefully we
5 really can learn from our neighbors and if we
6 don't go ahead that is something that we have the
7 time possibly to decide but for some of these
8 things we feel that if I does happen then we go
9 ahead.
10

11 CHAIRPERSON GENNARO: Right.

12 DOCTOR RAHM: It is important to
13 look at some of the details because you could end
14 up with industry doing its thing a year from now,
15 but if nobody has been paying attention to the
16 details in the meantime maybe you have, even a
17 partly adequate, regulatory structure in place and
18 we think it is important to look at all those
19 things at the same time.

20 The broader picture is like
21 national policy and all those kinds of things.
22 Also totally important and should really play a
23 part in all of these discussion, but can
24 potentially be a separate issue depending how you
25 look at it.

CHAIRPERSON GENNARO: Alright.

Sure and, planet Earth is a place when sometimes you have to be practical and so there is the practical person verse the ideal, and that's a balance. And what I said is in no way to take away from some of, you know, the great reporting work that you and other organizations have done. I was happy to hear Al laud you folks which you did many years ago were trying to get the watershed all figured out not knowing in those days that we would behaving this discussion, today, but we are very grateful for everything that Cornell has done. And we just tale a stroll through some of the testimony here and I want to thank Mr. Horowitt for, as Al had said for being able to poke a hole in the PR of the gas industry and really seeing, you know, what needs to be seen that we certainly appreciate that, and thank you for that. Thank you for coming all this way.

Okay, getting back to Mr. Appleton.

With regard to the one more round concept that you made in your remarks, do you think there is any receptivity on the part of, you know, DEC to do that? I am also trying to figure out, like, the

1 way I can be most effective. I mean, I don't
2 really have authority here. I have like a bully
3 pulpit and that is about it, but if I do my job as
4 well as I possible can and you know and try to
5 consolidate all the science, you know, hold people
6 to statements that they might have made on the
7 campaign or whatever. I think I can make a
8 difference not withstanding the fact that people
9 aren't returning my phone call or my letters. I
10 think this will, you know, like hearing a drumbeat
11 that is making a difference, and, you know, front
12 page stories in the New York Times. We'd be like,
13 get the gas line going although I think the
14 Academy Awards and it is just, I hope it is going
15 to become more difficult for regulators, to just
16 kind of like, look the other way and say, "Look we
17 just got to get this done." So it is either going
18 to be one where, like, the jig is up, so to speak
19 and they are just going to have to, like do the
20 right thing. Or it's going to be, it's getting
21 really hot, like, "we got to get this done," like
22 before there is, like, a New York Times story,
23 like, everyday, and so I do really know the
24 dynamic that is going to happen and either of the
25

two can happen. What do you think about that?

MR. APPLETON: Well first of all, I wouldn't underestimate the bully pulpit that principles speak for eight and a half million people, and that is a force we want to bring to bear and I would not underestimate either the simple logic that a process that uses 250 heavily toxic chemicals and lays waste to the landscape has not business being in a pristine watershed, but is a very simple straight forward statements and they apply to more than New York City. The most practical thing in my experience and as you know, we have done some things and I remember the report you gave at the time they were considered very impractical when we first proposed them. The first practical thing in my experience is to do the right thing. I mean Bismarck had, you know, the great statement but the part about being a liar is that you have to have too good of a memory and I think that, you know, Joe Martens has had a distinguished career and I am hopeful he will would bring the skills, you know, to what is clearly the most very complicated problem. To be sure John Hanger faced that test in Pennsylvania

1 and crashed and burned, but I think Joe will be of
2 sterner stuff and if he does that it will be clear
3 that this is the most complicated EIS that has
4 every been in New York State. There are issues
5 that are constantly evolving and it is going to
6 take more time and if they don't do it right they
7 are not going to get away with it. There are
8 dozens of people poised to, you know, go after
9 them politically to go after them legally and
10 hopefully, you know, a combination of principle
11 and interest will drive them in the right way.
12 The Cuomo people, when he was Attorney General,
13 made me a very interesting comment. They said
14 that, you know, normally when you look at the
15 comments on these EIS's, we get here is the
16 technician's comments and here is the community
17 group's, kind of made a course. But in this EIS,
18 all the community groups got experts, all the
19 experts have actually got out and talked to the
20 community groups, so that the level of comment the
21 we have gotten on this EIS's is really
22 unprecedented, and if, you know, Governor
23 Patterson came a long way, you know, in the course
24 of this debate from his initial position, and
25

1
2 since the Cuomo people were starting at a far
3 better position, then I am optimistic that when
4 they get a chance to think it through they'll do
5 the right thing.

6 CHAIRPERSON GENNARO: Good, good.
7 That's hopeful and any kind of grounds for
8 optimism is a good thing. I will say that I bore
9 witness to the evolution of Governor Patterson on
10 this issue and from the time when I first called
11 him up on the phone and asked him for a meeting,
12 which he graciously gave me. And me and my folks
13 spent a lot of time with him with Peter Iwanowicz
14 and the Governor seemed to really appreciate that,
15 and I think we are getting a lot of that and
16 definitely progress made there and I was grateful
17 for that, and I just don't know if I have the same
18 access now, but, you know, we'll see. I tried it
19 was a very nice letter. You know, let's have a
20 partnership; let's do this, you know. But anyway,
21 let's not foreclose anything.

22 MR. APPLETON: Jim life is long and
23 you're an old pro. You are pretty optimistic
24 about the outlook of you playing a part in this.
25 The right part.

CHAIRPERSON GENNARO: Good, good, good. And so, I think just being here today and think all that information will make it back to the state. We have the press covering this, you know. We've got the New York Times and like in a big way, and then let's just keep doing what you are doing, and, like, not give up. We really got something. I want to thank this panel so much for being here, we appreciate it. Thanks a lot.

[applause]

CHAIRPERSON GENNARO: Okay and the next panel that I had said previously: Dylan Hershkowitz from Catskill Mountainkeeper, Joanna Dyer from NRDC, Kate Hudson, Riverkeeper, John Goode from Union of Concerned Scientist. I think I announce the panel already after that Joe Levine, Alice Zinnes, David Braun, James Barth and Cheryl Levin, David Braun, James Barf. When we get that panel seated the other panel is on deck.

MS. SWANSTON: Would you please raise your right hands. Do you swear and affirm to tell the truth the whole truth and nothing but the truth, today?

CHAIRPERSON GENNARO: Still doing

paperwork up here. Just trying to get squared away.

Okay, this is just how I got the statements given to me. Riverkeeper is on the top, so why don't we go with Riverkeeper first.

MS. HUDSON: Good afternoon. My name is Katherine Hudson, and I am Riverkeeper's Watershed Program Director. I have waxed elements so I will try to summarize.

CHAIRPERSON GENNARO: Thank you.

MS. HUDSON: As I am sure most people know we are a watchdog organization that is dedicated to safeguarding New York City drinking water supply-

CHAIRPERSON GENNARO: [interposing] Sure if you can speak right into the mic like I am speaking people can hear you better, but it is hard to read and do that, so I know

MS. HUDSON: -and the watershed. I think we all have, already heard what is at state here. Natural gas drilling has the potential to put the New York City watershed at risk and as well as to negatively impact other waters and watersheds throughout the state.

1
2 I think the state articles that we
3 have seen in the New York Times that have been
4 referenced repeatedly make it very clear that the
5 DRBC rule making process and the DEC environmental
6 review process has significant information that
7 had not available to it before and information
8 that must be considered before they wrap up their
9 processes that they could be sufficiently
10 comprehensive and protective.

11 In addition to that information
12 which I have detailed in a couple of pages, you'll
13 find on page three of our testimony an
14 identification of data gaps of out technical staff
15 have identified as missing critical pieces of
16 information so that we don't even have all of the
17 information on the table yet that need to be
18 considered by these processes.

19 Given what is at stake, and given
20 the recent revelation of the significant dangers
21 that New York would face if hydro fracking were
22 allowed. Riverkeeper's position on gas drilling
23 in New York remains unchanged, that is hydraulic
24 fracturing should not be permitted in the
25 watershed nor it should be permitted elsewhere in

New York State until proper regulations enforcement mechanisms and penalties are in place. As no new regulations have been proposed and staff cuts have plagued DEC, we have no confidence that the state have the legal basis or the staff resources to adequately monitoring gas drilling activities and enforce their compliance with environmental laws.

Not only is it critical for New York State and the Delaware River Basin Commission to take the time necessary to evaluation this new information, but it is extremely important that both these entities put in place a clear and comprehensive regulatory structure, a realistic penalty structure, and a commitment to an aggressive and consistent enforcement. This is important to both citizens and the industry. Clear law and regulation give the industry certainty. They guide them so they can make good planning and technical judgments at the outset. Moreover, realist penalties and consistent enforcement level the economic playing field for companies who do want to comply with the law, and they disincentivize non-compliance with the law

1
2 and regulations so that it is not cheaper to break
3 the law than it is to comply with it. This avoids
4 the race to the bottom that we have seen in a
5 number of other jurisdictions.

6 Making sure that these protections
7 are in place before permitting is crucial give the
8 conduct of the oil and gas industry to date who
9 continues to lobby against federal regulatory
10 oversight, operate in secrecy with empty promises
11 of cooperation, cut corners at the expense of
12 workers and communities, and demonize the
13 opposition rather than acknowledge clear risks and
14 undeniable impacts. Given these considerations,
15 Riverkeeper with the respect to the DRBC process
16 to submit comments to the DRBC urging it to
17 suspend the current rule process and deadlines to
18 afford itself the time to consider recently
19 released information and the documents made
20 available to the New York Times, and to allow
21 itself the opportunity to analyze the regulatory
22 package yet to be developed by New York on which
23 the DRBC regulation intend to rely. We appreciate
24 the fact the City Council already passed a
25 resolution taking a similar position.

1
2 With respect to the New York State
3 DRBC process, we believe that DEC must review the
4 new information to determine if the environmental
5 review process should be reopened, particularly
6 the GEIS. It has been a significant period of
7 time for the scoping DGIS was finished one of the
8 things the DEC declared in the scope was that the
9 they were, in the absence of a pattern of
10 incidence indicating a regulatory weakness the
11 occurrence of incidence and the violations
12 themselves, isolated incidence and violations
13 themselves, it does not constitute the reason to
14 reopen the EGIS. I think that we now do have that
15 pattern, and it should be seriously considered.
16 Therefore Riverkeeper intends to urge the Governor
17 to extend the executive order for at least a year
18 beyond July 1, 2011 or until DEC can complete a
19 through environmental review and rule making
20 process. This, environmental review, should
21 incorporate a cumulative impact analysis.

22 In addition, we would ask the
23 Governor to take steps to ensure that the DEC has
24 the staff and budget necessary to complete the
25 seeker process, and to do a formal rule making

after that process is complete.

We would urge the City Council to consider a similar resolution, to extend the current moratorium and in addition, although I recognize that your efforts to communicate with the state up until now have not been successful, we would ask the City Council consider calling the DEC Commissioner before a full City Council hearing to ask his assurance that the SEGIS will be comprehensively revised from the ground up given its current fundamental inadequacies and to press him on whether he plans new regulations or would recommend new laws, and how he will assure fully funded and independently minded inspectors given the agencies clear staffing problems.

In summary given the importance of the recourses at risk, the DRBC and the state of New York must make certain that they have all of the information, legal authority, staff, and commitment to enforce and require the gas extraction industry to conduct its activities in manner protective of both human health and the environment before they proceed with any permitting. This is critical to avoiding the

pollution article in the New York Times on Sunday that can result in a rush to permit and drill with insufficient oversight.

We thank the City Council for the opportunity to participate in today's hearing and also for the important role that the City Council continues to play on the issue of hydro fracking in New York and we look forward to working with you on it in the future.

CHAIRPERSON GENNARO: Thank you Kate. I appreciate that very much and I will get back to you with questions and comments. I appreciate that. NRDC, Joanna or Johanna; how do you pronounce it.

MS. DYER: Johanna.

CHAIRPERSON GENNARO: Johanna. Okay. Please state your name for the record and commence your statement.

MS. DYER: My name is Johanna Dyer and I am a Legal Fellow for the Natural Resource Defense Council. My colleague Kate Sinding is unable to speak today, so I'll be testifying on behalf of NRDC.

NRDC has worked for forty years to

1 protect the people and environment of New York
2 City and New York State. For the past few years
3 we have been advocating for the need of New York
4 State and extremely cautious approach to proposed
5 expanded natural gas development, and to ensure
6 that no new drilling is allowed to proceed unless
7 and until it can be determined to be safe. We
8 have further advocated that drilling in the New
9 York City watershed can never be considered safe
10 and must be formally banned by the state. Thanks
11 for the opportunity to testify before the Council
12 today and I'll do my best to keep it brief.

13
14 We'd like to comment-

15 CHAIRPERSON GENNARO: [interposing]
16 No, no go ahead.

17 MS. DYER: We'd commend the Council
18 for its ongoing recognition of the critical issue
19 of natural gas development through hydraulic
20 fracturing and for also for shaping the dialogue
21 surrounding it. Public opinion in New York is
22 shifting away from a rush irresponsible fracturing
23 and we hope that on this issue our state and city
24 will be a model for the country and indeed the
25 world.

An important article in Sunday's New York Time underscores the value of New York's more careful approach to hydraulic fracturing by showing the numerous unknowns and risks involved in the process as well as the serious harms some communities have suffered as a result of hastily and short sighted permitting of fracking activity.

The Times noted that hydro fracking and the associated health problem as well as widespread air and water contamination have been reported at least a dozen states.

Important progress have been made in our own state by there still remains lots of work to do. My comments today will focus on two issues. First New York State's ongoing review of the process for natural gas activity, and second the Delaware River Basin Commission recently issued draft regulations regarding natural gas drilling.

First, thus far in comparison with many other states New York State has taken a slower and more measured approach to allowing new fracking within our borders and approach we must continue rather than rushing our environmental

review process in response to industry pressure.

Last year, Governor Patterson issued an executive order which Governor Cuomo subsequently re-authorized, that ordered the state's Department of Environmental Conservation to prepare a new DGEIS analyzing the environmental impacts of hydro fracking before it makes a decision to on whether to permit this activity.

This is a welcomed development as the original draft suffered generic environmental impact statement was fatally flawed in numerous regards.

It is critical that new statement correct its numerous deficiencies which other people have outlined today, but include a failure to properly consider alternatives that result in fewer environmental impacts, failure to impose a regulatory process for oil and gas drilling and most importantly the lack of a meaningful cumulative impact analysis. And despite the importance of hiring a new and thorough assessment, the order contains an unfortunate target date of June 1 of this year for the completion of the new draft, which give DEC's current dire staffing and budgetary circumstances as well as the many

deficiencies the remain to be addressed is an entirely insufficient period of time to conduct a through review.

We, therefore, urge the City Council to issue a resolution requiring Governor Cuomo to make clear that there is not binding deadline on DEC for the completion of its new draft environmental impact statement. The department should be given the time as well as the staff and resources that it needs to develop a comprehensive science based study on fracking and all of its impacts before even considering going forward with any hydro fracking activity.

The Council should further call on DEC to further publicate the formal regulations and end the secret process, instead of continuing to regulate gas drilling in the state through the issuance of permit and conditions as is currently proposed. Formal regulations are essential for New Yorkers to understand the rules that all gas companies would be required to follow and would also lead to greater accountability for oil and gas corporation.

Second in December, the Delaware

Basin Commission issued draft regulations for natural gas development through hydro fracking far short of protecting our critical water resources, and we will be submitting detailed technical comments on the draft regulation, which we'll make available.

Procedurally these draft regulations are problematic if not illegal because no comprehensive environmental impact statement was prepared by the DRBC before they issued the regulations. In addition, the public comment period of just 90 days is entirely inadequate to allow for thorough review and comment by interested parties particularly in light of this failure to conduct an environmental review.

CHAIRPERSON GENNARO: Why don't we skip the next paragraphs that gets into the details of-

MS. DYER: Okay.

CHAIRPERSON GENNARO: of the regulation. You want to go big picture because the paragraph after that you asked the Council to do something, and that is what I really want to know, like, what do you think that the best think

1
2 that the City Council could do to make this whole
3 situation better. Why don't you

4 MS. DYER: No problem.

5 CHAIRPERSON GENNARO: That is my
6 takeaway because I already know that the
7 regulations are bad.

8 MS. DYER: Okay, so we'd like to
9 thank the City Council for its letter to the DRBC
10 asking for an extension of the comment period and
11 for a hearing to be held in New York City. We'd
12 ask of the City Council now issue a formal
13 resolution calling for the same procedural
14 safeguards to insure that more voice are heard on
15 this issue of critical importance for every New
16 Yorker.

17 We also ask the Council insist the
18 at DRBC not proceed with issuance of final
19 regulations until it has at least completed its own
20 proper environmental impact analysis, including
21 cumulative impacts or until New York State
22 completes its own environmental review process.

23 We'd also like to reiterate our
24 appreciation the city leadership on this issue,
25 which has been and continues to be of critical

1 importance to every New Yorker, and even to many
2 beyond the state's borders. We ask the Council to
3 continue its effort to insure that hydro fracking
4 is not undertaken hastily or recklessly in our
5 state, and that we carefully protect our water
6 supply, health, and way of life. Thank you again
7 for the opportunity to testify today we stand
8 ready to work with this committee and the City
9 Council as a whole in this complex issue of
10 hydraulic fracturing and natural gas development.

11
12 CHAIRPERSON GENNARO: Thank you,
13 thanks very much. I'll come back with comments.
14 Mr. Hershkowitz.

15 MR. HERSHKOWITZ: Good afternoon,
16 my name is Dylan Hershkowitz and I am the Deputy
17 Director of the Catskill Mountainkeeper
18 organization that represents over 12,000 people
19 over 6 counties these within the New York City and
20 Delaware River watersheds. Thank you Mr. Chairman
21 with the opportunity to speak today. I have three
22 brief points that I would like to make regarding
23 the important issue of gas drilling fracturing.

24 CHAIRPERSON GENNARO: Right, but
25 the one I really care about is number three.

2 MR. HERSHKOWITZ: Number 3.

3 [laughter]

4 MR. HERSHKOWITZ: Should I skip to
5 that?

6 CHAIRPERSON GENNARO: Yeah, please.

7 MR. HERSHKOWITZ: Yeah. Well
8 basically the third point that we would like to
9 make.

10 CHAIRPERSON GENNARO: I'll just
11 point out for the record, you know, the first one
12 is about the dangers of this type of drilling and
13 the regulations as proposed are not sufficient,
14 and item three is what they want me to do.
15 Please.

16 MR. HERSHKOWITZ: We the Catskill
17 Mountainkeeper believe that the work of this
18 committee is essential to making sure any
19 industrial processes effecting the health and well
20 being of New Yorkers does not proceed before it
21 can be proven safe. The many instances of
22 environmental and health concerns relating to
23 fracking and the improper treatment of fracking
24 wastewater and the lack of adequate regulation
25 emphasize the importance of taking a cautious

1
2 approach which to allow fracking in the New York
3 City and Delaware River watersheds. It is our
4 recommendation that no drilling actions be
5 permitted until we can call this process safe, and
6 anything you can do that will help us with that
7 will be amazing. Thank you very much for your
8 time and I hope you will take this testimony in
9 consideration.

10 CHAIRPERSON GENNARO: And certainly
11 we will. I want to thank Wes Gillingham and all
12 the good people of Catskill Mountainkeeper. They
13 have really been, you know, side by side with us
14 the whole was just as Riverkeeper, NRDC and all
15 the fracking groups and it has been great. We
16 greatly appreciate what you do for your 12,000
17 members the reach that you have beyond those
18 12,000 members. I have constituents of mine that
19 they members of Catskill Mountainkeeper and I find
20 that fascinating just terrific.

21 Let me pose a question to the
22 panel, particularly to, I guess, Riverkeeper.
23 Kate, you were talking about, you know a data gap
24 and that the DEC should, and I am not a lawyer so
25 the DEC could, all the information that we have

1 now and call reopening of the process and, you
2 know, things should be extended, and so I'm much
3 more comfortable with the science than I am with
4 the legal matters and how those can be brought to
5 bear, but the state either, like, does that or
6 they don't and if they don't presumably
7 organizations like yours might have an interest
8 in, you know, doing some kind of legal proceeding,
9 or whatever. But you talk about, not that we want
10 to predict, but do you believe that the case that
11 you are making in your statement would be
12 sufficient that you believe you could legally
13 compel them to do this and if they were not to do
14 this it would be a legal hot foot from you. Could
15 you talk about this a little bit?

16 MS. HUDSON: Well

17 CHAIRPERSON GENNARO: And again if
18 you talk right into, close to the mic, that's
19 good.
20

21 MS. HUDSON: If we are talking
22 about challenging any actions that they do or do
23 not take with respect of the environmental review
24 process under seeker. Litigation in the seeker
25 arena is very uncertain, and it frequently depends

on who you are in front of, and there is a tremendous deference given to the government agency with respect to seeker. It does not mean that we would not consider bringing the litigation but the outcome is unpredictable. I think that is the best I could say about that.

CHAIRPERSON GENNARO: That is certainly good to know. I'm not a conversant as with that as I would be with the science. I didn't go to law school. I am not a lawyer, but good to know. Yeah we sort of have to win hearts and minds and anything that we can do in a legal proceeding it is not a slam dunk. It is good to know that.

MS. HUDSON: It is in a last stitch if we have gotten there we have failed along the way in other ways.

CHAIRPERSON GENNARO: Okay

MS. HUDSON: Which is why we are here taking advantage of the bully pulpit thing here.

CHAIRPERSON GENNARO: Sure, sure. You bet, and I want to thank you for quantifying and laying out some of these, you know, data gaps,

1
2 which we are going to find this very helpful in
3 what I say and what we as a body say and there has
4 been a couple of calls from this panel for various
5 kinds of resolutions that the City Council could
6 put forward and please, you know, keep those ideas
7 coming because you know, we have done that and we
8 want to continue to do that and we want to do it
9 in a way that makes sense and makes all points
10 that we want to make.

11 So I am grateful for that and with
12 that I thank the panel for being here and very,
13 very special hello to Wes Gillingham and so he and
14 I stood out freezing at a press conference once.
15 It was like 5 degrees or whatever, and you go back
16 and ask Wes what we did right after that okay.
17 Yeah we all, anyway, we had Irish coffee okay, I
18 said it, I said it. [laughter] You wonder what it
19 was; it was Irish coffee, and it worked. Okay
20 next panel. Thank you I'd appreciate you being
21 here very much.

22 Okay, I want to thank this panel
23 for being here. Samara, if you could, swear in
24 the panel.

25 MS. SWANSTON: Would you please

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

CHAIRPERSON GENNARO: Okay, thanks. Why don't from my left to right. We'll start with Joe Levine, and Bill do we have statements that have been given to use here? Any

MR. LEVINE: Yes I did,

CHAIRPERSON GENNARO: Oh, I got it Joe. Okay.

MR. LEVINE: My name is Joe Levine co founder of Damascus Citizens and NYH2O.

Shale gas drilling fracking has not been proven to be safe; it should be banded that is plan A. Plan B are the regs. Regulations for shale gas fracking must be based on a cumulative impact study, but these regulation, the best made regulations cannot make drilling safe. This is proven by what is happening where drilling is happening. Just look at Pennsylvania fracking is intrinsically contaminating; it is not a decade old proven technology. It is just a few years old and is allow because it is exempt from relevant regulations. There are no reports that can

conclude that this is safe because it is not possible to come to that conclusion.

These regulations must rescind the exemptions from environmental law. The dominance of the hearing record so far are the New York City DEP Hazen and Sawyer report and the New York State watershed inspector general's report from the AG's office and no less than eight other independent expert reports submitted to the DRBC by Damascus Citizens and the Delaware Riverkeeper Network. All of these reports say that this technology is not safe they say and therefore you cannot allow it must be banned until it is proven to be safe even the industry own society of petroleum engineers say there is substantial risk from failures and accidents in all aspect of the drilling process. The rate of accident or failure exceeds 1 percent, by all reports, actually, as high as 5 percent, that means if there are 20,000 wells it the DRB there will be 200 accidents and failures. What would will do when our aquifers are contaminated, like, in endemic?

One accident like the one in Clearview, PA will spew millions of gallons of

1 toxic poison that does not degrade into the
2 rivers, and nothing was done wrong in those
3 incidents. It is just the nature of the activity
4 that is what I wrote before the New York Times
5 article. Now its proven then actually the
6 activity is nothing less than sinister. If you
7 examine the record of shale gas fracking it poses
8 too many risks to the basin resources to be
9 considered. There is no substantial evidence in
10 the hearing record over three year that refutes
11 this. Consequently, any rule authorizing fracking
12 anywhere in the basin fails from being arbitrary
13 and capricious and unsupported by the record.

14
15 You must do a cumulative impact
16 study first to substantiate regulations. This is
17 the precautionary principle, which is the
18 responsibility of the DRBC, but the regs are plan
19 B. Plan A is a ban on fracking.

20 [applause]

21 CHAIRPERSON GENNARO: Thank you
22 Joe. We all love Joe but let's just keep it down.
23 Okay. Thank you. Thank you, Joe, I appreciate
24 that.

25 MR. LEVINE: Your welcome.

CHAIRPERSON GENNARO: Yes, and Ms.,
is it Zinnes.

MS. ZINNES: Yes Zinnes. Alice. I
am Alice Zinnes. I am a member of Damascus
Citizen for Sustainability and also the Sane
Energy Project.

The DRBC fracking regulations are
seriously flawed as so many people have said
today. Not only does fracking in the Delaware
River Basin threaten New York City's water supply,
but in fact we don't even need the gas that will
be produced. The gas industry and Spectra Energy
have tried to convince us that we need a 30-inch
pipeline to supply us with natural gas. In fact
the industry wants this pipeline built for export
markets beyond New York City. Industry was the
price of gas to increase with the increased
demand. Industry is saying that they need to
supply us with gas is just a PR campaign to win
approval of this pipeline and to be able to drill
in the basin and upstate.

It is true the New York City needs
to rid itself of dirty oil burning heating
systems; however, rather than exchange one evil

1
2 for another we must convert our buildings,
3 vehicles, and electrical systems to a mix of
4 sustainable energy sources. Studies show that
5 with existing technologies our country can be
6 completely off fossil fuels by 2030. Spain is
7 already 50 percent renewable, and Seville, Spain
8 is largely powered by new high tech condensed
9 solar panels or CSP. CSP provide electricity
10 24/7.

11 In New York City we can convert our
12 garbage to electricity thus saving on garbage
13 disposal costs air pollution from garbage
14 transport, and even bring cash by selling the
15 residual as fertilizer. We can insulate our
16 buildings, install action, or heat sensitive
17 lighting systems, add conventional solar panels in
18 small horizontal windmills to rooftops, and stop
19 heating our lighting office buildings when they
20 are empty. All of these activities bring jobs and
21 will help bring New York out of the recession.

22 The renewable energy sense to be
23 expensive to install it quickly pays for itself.
24 Installation cost for conventional solar panels
25 installed out west 1980s have already been recoup

and the electricity from these panels cost 3 cents a kilowatt which is just about the cheapest energy source around.

In short, rather than destroy our upstate water and air, rather than threaten our citizen with natural gas pipeline explosions, rather than spend billions of dollars on a new natural gas power plant, and a new water filtration that may not even filter the water adequately New York City must become the great leader it has been for decades and bring our planet into the 21st century of renewable energy because we do not need the gas, we must demand the DRBC and New York State not allow fracking in the Delaware Basin in upstate New York. Thank you.

[applause]

CHAIRPERSON GENNARO: Thank you, please keep it down. I have two more witnesses on this panel Mr. Braun and Mr. Barf.

MR. BARTH: Barth

CHAIRPERSON GENNARO: Okay Mr. Barth, please proceed.

MR. BARTH: Thank you, James Barth. I am a research coordinator in Damascus Citizens

1
2 for Sustainability. Thank you for holding this
3 panel and filling the void as you have done many
4 times before.

5 CHAIRPERSON GENNARO: Thank you.

6 MR. BARTH: Let me just start off
7 by saying I agree with everything that Al Appleton
8 said.

9 The Chief Operating Officer of
10 Schlumberger, Paal Kibsgaard, was quoted in the
11 Dow Jones newswire recently about week ago quote,
12 "We are convinced that the brute force approach
13 established in North America will not be practical
14 overseas either from a financial or operational
15 standpoint." He is talking about high volume
16 hydraulic fracturing into shale. Obviously, or
17 what appears to me obviously, the Europeans have a
18 strong regulations or Schlumberger or the service
19 company's have more concern for Europeans than
20 they do for us in New York State, Pennsylvania,
21 and the Delaware River Basin.

22 The DRBC estimates that there will
23 be up to 18,000 wells within the Marcellus Shale,
24 but that doesn't include vertical wells and it
25 doesn't include what John Williams referred to as

GS testimony of all the other strata, so there could be many, many more thousands of wells.

As practiced in the United States, this shale hydro fracking process will result in contamination and potential catastrophic contamination if not through a singular event then through cumulative impacts, if not immediately in the near to mid future. The cement and steel casing for example is bound to corrode, break, and fail as seal. Seismic events happen often and the other layers when drilled and fracked will be fracked with up to 15,000 pounds per square inch.

It should be banned in watersheds and our residential areas, but regulations have been drafted without being informed of the cumulative environmental impact study is irresponsible. If such drilling is allowed prior to conducting a cumulative environmental impact study it is grossly negligent. May I just add I have the 83 pages of the regulations that have been proposed by the DRBC I have submitted already to the DRBC a 14 page report that is both general comments, like this, and but also specific comment and I would be happy to e-mail that to your

office.

CHAIRPERSON GENNARO: Sure. I would ask that Council staff talk to Mr. Barth so we can get the benefit of those details comments.

MR. BARTH: There are three or four detailed specific comment I should make. Approval by rule should not be allowed in the Delaware River Basin. Currently, approval by rule is not allowed in the watershed or sub watershed that feed New York City watershed likewise it should not be within the rest of the Delaware River Basin. As we all know that they're 9 million or so New York is fed without filtration, many of the millions of people in Pennsylvania draw their water directly from the ground and these well may be 200 feet from their homes. Also the Delaware River, the main stem, provides water to aquifer, as we know seven million people down stream.

Most people don't know that open centralized waste pits for the flow back material are currently allowed in these draft regulations and that should just not be allowed. Some of these as we have seen behind somebody like Stephanie Hallowich in Washington County,

1
2 Pennsylvania. There are huge size, some of them
3 are even being listed at some point and they must
4 be outlaw. None of this flow back material should
5 be allowed to be kept in open pits anywhere within
6 the basin. Let's see. It was interesting the
7 shallow gas, oh

8 On the regulations, I am against
9 what other people have said. I know states don't
10 like people taking away their authority, but for
11 me the Delaware River Basin is, doesn't respect
12 geographical boundaries. It is a geological form.
13 It is New York State and it's Pennsylvania. And I
14 firmly believe that there should be one set of
15 rules and regulations for the Delaware River
16 Basin, but those rule and regulations should be
17 taken from the different state or from the federal
18 what ever regulations are the strongest, and they
19 should be updated as improvements are made.
20 Pennsylvania on the west side of the river and New
21 York on the east side should not just I can't be
22 allowed to exist independently like that.

23 Shallow gas, it is very interesting
24 that John Williams described drilling through
25 areas of shallow gas through an aquifers that are

1
2 800 feet deep in parts of New York State to get
3 down to the Marcellus and that is basically what
4 happened endemic. In a sense that after this
5 migration of gas and we all believe is fluid as
6 well and that would be born by time. The industry
7 has constantly responded with a smear campaign for
8 the folks in [inaudible], they are being laid
9 faucets for years and that this is biogenic gas
10 and so forth.

11 So the question arises, should this
12 type of drilling, should shallow gas drilling
13 areas be mapped out? Should there be 3D seismic
14 as well in relation to what Paul Rueben, Chip
15 Northrup [phonetic], and others have describes
16 that they don't know what they are drilling. When
17 they go out 10,000 feet on a lateral, they haven't
18 mapped that so they don't know what natural faults
19 exist there.

20 The same thing with the shallow
21 gas, if they are drilling in areas that have a
22 history, then as far as I'm concerned, it is
23 grossly negligent to be doing this type of
24 production in that. It doesn't matter if you are
25 getting shallow gas, biogenic gas, or thermogenic

gas, when you are getting gas, when your water is no good. I think I'll stop there. Thank you very much.

CHAIRPERSON GENNARO: Thank you.
Thank you Mr. Barth. Mr. Braun. Mr. Braun.

MR. BRAUN: Hello. My name is David Braun. I am one of the co-founders for United for Action and I want to thank you very much for bring us together today for this purpose it is a very critical and timely gathering that we are having here. This issue is one that definitely concerns all of us here in New York and I think it's very important that those of us here in the New York City area call attention that the DRBC has neglected to hold a hearing in New York City when almost half of the inhabitants of the state of New York are located in the metropolitan area of New York. I think it's completely unacceptable and I thank you very much for representing the needs of New Yorkers and opinions the New Yorkers here today so thank you.

One of the things that I want to point out before I get to my complete testimony here is that based on the information from and

Alice made reference to this, information from a two part paper published in the Journal for Energy Policy, Mark Jacobson and Mark Delucchi, forgive me if I pronounce that name wrong, scientist from Stamford and U.C. Davis say we can be completely on renewable energy and green energy by 2030.

There is no need for us drill for gas and poison the people anywhere in the process of hydraulic fracturing.

In light of the most recent New York Times articles that came out on Sunday and again today and we'll be seeing more of, it is imperative we put a stop to unconventional gas drilling and ban hydraulic fracturing now. We have a major health crisis on our hands major, major.

The DRBC, in particular, has a responsibility to protect the Delaware River Basin and all of its inhabitants. Based on the information that we found in the New York Times article and the other sources, such as the Hazen and Sawyer report, we are poisoning the American people just to power our lives and the perspective that is leading this push for drilling is demented

and nothing short of.

Each well is utilizing 400,000 pounds of chemicals in each and every well, sometimes a little less, sometimes a little more, but that tends to be the average into the ground. Of course we know, that 80 percent of that remains in the ground 20 percent of it comes up. I am going to focus on the 20 percent that comes up. I usually focus on the stuff that stays in the ground and the migration of it. Clearly when the New York Times is quoted in saying there is no way of guaranteeing that the drinking water taken in by all of these plant, and they are referring to drinking water plants is safe. So they are saying that there is not way of guaranteeing that the drinking water taken in by all these plants is safe then something must have to change.

We are getting poisoned the article also goes on to tell us that radiation is being released into rivers sometimes just miles upstream from drinking water intake plants. It also goes on to take about how there is no way of processing or treating this radiation, again this is a major health crisis when there are unknown amount of

1
2 radiation being released into our bodies of water
3 and we don't know where it is ending up and being
4 consumed this is a health crisis and it must be
5 stopped. Again let's look at this rationally,
6 let's look at this like logical human beings that
7 are supposed to be.

8 In addition, to be specific about
9 one point here the current proposed DRBC regs are
10 permitting the gas industry to police itself when
11 it comes to tracking the hazardous radioactive
12 chemically laden waste, okay. Now that is like
13 giving the keys of the Lamborghini to drunk 16
14 year old and expecting the car to come home in one
15 piece. Alright. It will never happen, forget
16 about it. You know, it is absolutely insane, and
17 what I want to know is who is going to pay for
18 this damage? The people in this room are going to
19 be paying for the damage, and that I think is
20 very, very unfortunate, so why are we not. You
21 know, I mean, the New York Times goes into these
22 things every time a regulation is proposed that we
23 regulate this industry. The industry pushed back,
24 it is not as though we haven't given them the
25 opportunity to work with us. We have given the

opportunities upon opportunities upon opportunities, and they still keep pushing back. They should be paying for this regulation. They should be paying for inspectors to be on every site. They should, I mean, when they are spills and thing like that currently they are the responsible ones to be telling us these thing. I don't trust them. If they won't allow us to come in and regulate them they are not going to be telling us everything. This is a profit driven industry, clearly we see that when claims of health problems arise that they are resistant to it. They claim irresponsibility and point to cleaning products in people's houses. This is their mode of operation.

CHAIRPERSON GENNARO: I need you to wrap up.

MR. BRAUN: Sure. In any case, we cannot allow the to regulate themselves any longer, and the industry must be paying for this but they won't. So the people that fill this room are clearly present here because they know that this is wrong and should be stopped and that this is a clear and present danger, unconventional

shale drilling fracking is it an untenable practice and these chemicals cause cancer. Radiation causes cancer. This is a health crisis and it must be banned now and until it can be proven safe. Thank you very much.

[applause]

CHAIRPERSON GENNARO: Thank you.

Let me say this to the panel, and I really, really appreciate, you know, the spirit and the verve and the, you know, deep commitment of this panel, which I think is emblematic of everybody in this room, and that is a good thing, but what is unfortunate is that it is not so much up to what I believe or, you know, what you believe, that does not drive the day, and so we have a this process that we are in, and I actually find myself agreeing with Mr. Braun in that, you know, getting into the minutiae, you know, and detail of, you know, this regulation or another regulation. You know, if this goes forward like we are just in trouble. It is just a really bad thing and we have to do what we need to see if you can get sanity to prevail. Okay, so you can do that like through the official system, you know, you make

1
2 comments to the DRBC and you make comments to the
3 state, you participate in the process, you come
4 here like you make your views known, you give them
5 technical information, and data gaps and all this,
6 and that is good strategy and you should do that,
7 but everybody needs to do is, not that it is for
8 me to coach anybody, but, you know, take the New
9 York Times article that came out on Sunday, and
10 send it to your state assembly person and to your
11 state senator, and to the governor, and just say
12 what is your response to this, you know, what is
13 your response? And, you know, we as a people who
14 live in this apartment building, or part of this
15 civic association or a part of this religious
16 congregation, we want to meet with you, like our
17 state senator, we want to know what you are going
18 to do. So like, you know, we want to meet with
19 you. We want you to come to our co-op apartment
20 building. We want you to come to our
21 congregation. We want you to hold a town hall.
22 We want to know from you, you represent us in the
23 New York State Senate, you know, what are you
24 going to do about this? And what are you going to
25 do as my local representative in the State

1
2 Assembly? And, you know write to the Governor
3 maybe you have better luck than I do, but, you
4 need people going to Albany, talking to the
5 Governor saying, "I'm getting beat up on this.
6 This is like guys this is like getting to be too
7 much. This is getting to be too much. It is on
8 the front page of the Times. It is not just
9 people, you know, with tie-dyed shirts in the
10 street anymore; it's on the front page of Times.
11 It is in the Oscars, it is in, like, the USGS, it
12 is just like, it's over." That is, kind of, you
13 know, what we need.

14 And so I think that the people in
15 the room today would be wonderful ambassadors for
16 that. People belong to civic associations, you
17 know, belong to the co-op board, people belong to
18 community board, or whatever. But what you need is
19 your state representatives to get, you know,
20 bombarded by photocopies of the Times article.
21 Whatever you want to send them saying that this
22 matters to us, and please let us know what your
23 record is on this? Have you made any statement on
24 this have you participated on any type of process
25 on this? Did you, you know, submit comment, just

1
2 whatever, you have you done? It is a big deal, we
3 want to know what you feel about it and we want to
4 meet with you a month from now, and we want to
5 know, like what you've done on this. I'll tell
6 you that is the best way to go because they really
7 be forced.

8 [background noise]

9 Stop. Stop. Stop. I will not
10 have that. I will not have that. And so, that I
11 think is a, you know, practical suggestion and
12 although we should still do this by the numbers
13 and have our little testimony, and, you know, talk
14 to DRBC and, you know, play the game, sort of, by
15 the rules, sort of, within the box, but it is
16 completely within the box to go to the people that
17 represent you and let them know that this is
18 important. Because while the city government, you
19 know, have the bully pulpit, and you know, have a
20 mayor that is deeply committed to, you know, good
21 things, and you know, a really good DEP. We
22 don't, you know, run the show here.

23 There are levels of government
24 beyond us, you know, there is the city, the state,
25 and the federal government, and of course the

1
2 people here well know that it is President Obama
3 who holds the swing, you know, vote with the Army
4 Corp and so this is where people have to voice
5 things. It is truly up to me to ask questions,
6 but let me ask Joe the question: what do you want
7 to ask me? Or like what did you want to say.

8 MR. LEVINE: You know, every.

9 CHAIRPERSON GENNARO: You got to
10 push the button.

11 MR. LEVINE: Okay. Everything you
12 said is crucial, but I would just like to point
13 out that the probably on of the largest grass
14 roots coalition in the state are the reason that
15 they are not drilling in New York and they are not
16 drilling in the Delaware River Basin Commission
17 right now. And we have attempted to do everything
18 you've said and anything else that anyone has an
19 idea about, and I think that the movement is
20 growing and we all have to continue to do that.

21 CHAIRPERSON GENNARO: Sure, you
22 know there may be people who are, like, tangential
23 to it and aren't fully informed, you know, could
24 be, sort of absolutely to bear, so to speak-

25 MR. LEVINE: [interposing]

Absolutely. Absolutely.

CHAIRPERSON GENNARO: -kind of like, this community, but you know, the bigger that community gets the better and so it was not a criticism it was not happening, but what I sort of fear, is that when thing really start to, you know, pardon the pun, they kind of bubble up, and it starts, you know, showing up on the front page of the Times it gets, the people who would are, like, pulling the levers of power that is sometimes the time that we have to get this done, because if we wait another year it is just not going to have the ability to do it. It will be like over by then, and so maybe an impetus to act, you know, sooner rather than later, so that's I say that's just trying to be practical and something else, not known is sort of the most practical person but my stamp on another practical point is letting me know that my penchant for a, you know, wanting to listen each and every person in this audience into 7 o'clock tomorrow morning which I would gladly do there indicating to me that there is a practical imperative if we want to get everyone of the many, many, many, many, many

1 people who have signed up to testify to the
2 witness table then two things have to happen. One
3 is that I shouldn't talk so much and that the
4 people, [applause] you could clap for that, but I
5 will allow that, but also we are going to put
6 people on the dreaded clock which I don't like it
7 any more than you do, but people came here waiting
8 a long time we have the responsibility to get their
9 comments on the record, and I am compelled to do
10 that. So we are going to do a 2-minute clock but
11 not before we hear from James Barth, who wants to
12 have a parting-

14 MR. BARTH: [interposing] Just a
15 point tomorrow March 2 is the public meeting of
16 the Delaware River Basin Commission in West
17 Trenton, New Jersey and you have an opportunity to
18 speak with the four or five representatives of the
19 commission for the public comment part, so that is
20 a great opportunity for people to register, and if
21 anybody has any questions on that I could be right
22 in the back and answer them for you. And also I
23 could be driving down and could take three people
24 conceivably in a carpool.

25 CHAIRPERSON GENNARO: Okay. Thank

you. Okay one last.

MS. ZINNES: One other action point is that today beginning at 5 o'clock there is a rally at the Army Corp of Engineers at 26 Federal Plaza.

CHAIRPERSON GENNARO: Thank you. Thank you. Okay, my thanks to this panel. I appreciate it, you bet. Next panel Alan Borodnick [phonetic], a didn't have full appreciation of this person situation, he has a doctor appointment and we would like to get Mr. Borodnick I suspect that is him and then representatives also in this panel although Mr. Borodnick will go first Steve Max of Three Parks Democrats, looks like Merle, okay, Lynn Max probably with Steve Max, right, and Daniele Gerard. It is my understanding that they compiled, is that theirs, okay. So if we could have Mr. Borodnick and the representatives of Three Parts Democrats, that did a lot of work that they are going to tell me about and sadly and with my apologies you people are on a two minute clock. Nothing I can do.

MR. BORODNICK: Before I start I just like to say, before

2 CHAIRPERSON GENNARO: Okay just
3 wait until the panel is together.

4 MR. BORODNICK: Oh I am sorry, but
5 instead of wasting all the time waiting for them
6 to come up here before I start. I just want to
7 say

8 CHAIRPERSON GENNARO: [interposing]
9 Here is what we are going to do. Alan, okay, I'm
10 the chairman-

11 MR. BORODNICK: [interposing] You
12 rule.

13 CHAIRPERSON GENNARO: If I loose my
14 ability to keep order then things spiral, what we
15 do is have a Samara swear the panel and then I am
16 going to put you on right away.

17 MS. SWANSON: Please raise your
18 right hands. Do you swear or affirm to tell the
19 truth, the whole true, and nothing but the truth,
20 today?

21 MR. BORODNICK: I swear the truth

22 MULTIPLE VOICES: I swear.

23 CHAIRPERSON GENNARO: Thank you.
24 Thank you Mr. Borodnick for being here and please
25 proceed.

1
2 Mr. BORODNICK: I would like to
3 insist that the first person speaking out of the
4 audience I would also like to say that I am the
5 first person here who is going to support fracking
6 110 percent under one condition. Every well that
7 is drilled in New York should be drilled at the
8 back yard of the residence, the permanent
9 residence of the executives of the company that
10 want to come in and do the drilling. [laughter]

11 My problem pure and simple is that
12 there is a very simple solution to this: you're
13 in politics why don't you just form a convoy with
14 not only the confers who left here by the rest of
15 the people in the City Council and as many other
16 people that want to join that convoy and instead
17 of telling us what we have to do, lead the pack up
18 to Albany and blast the officials where it hurts
19 them, just tell them how many votes you won the
20 election by and promise them that that is the
21 minimum, the least number, that will going to vote
22 for their opponents extend the moratorium. You
23 have been very esoteric here have done wonderful
24 things you've got loads of information. The fact
25 of the matter remains that unless the moratorium

1
2 is extended you are dead in the water. You got
3 until the summer starts, and after that you have
4 lost your case, because the drilling companies are
5 spending a fortune in order to put Josh Fox down
6 they started to wrap themselves in the flag
7 calling themselves patriots and seditious his part
8 etcetera.

9 Get out of your seats; get your
10 toshies into your car and form a convoy that ties
11 up the entire highway and show Albany if they
12 don't extend the moratorium, it is over we don't
13 have any time left, come July if there isn't
14 something in place to freeze what is going to
15 happen? It is going to happen. It is that simple.

16 [applause]

17 CHAIRPERSON GENNARO: Thank you.
18 Thank you Mr. Borodnick. And if you could state
19 your name for the record, and then proceed with
20 your testimony. You're obviously with the Three
21 Parks Democrats. Right?

22 MS. GERARD: Yes. My name is
23 Daniele Gerard and I am the President of Three
24 Park Independent Democrats. Unfortunately, Steven
25 Max, Lynn Max, and Emeril McEldowney [phonetic]

1
2 had to leave. I just want to say that the whole
3 fracking issue is about our health and our money
4 behind you on the panel and thank you Chair
5 Gennaro and Miss Swanson for holding these
6 hearings.

7 Behind you on the stand there are a
8 thousand letters that the Three Parks gathered on
9 the Upper West Side.

10 CHAIRPERSON GENNARO: Oh my
11 goodness.

12 MS. GERARD: One the Upper West
13 Side in several days of tabling in 2010. They are
14 all addressed to Governor Patterson, but we sent
15 copies to our State Senator Bill Perkins and at
16 the time now Attorney General Schneiderman. We
17 sent them to Assembly Member O'Donnell and various
18 other people Shelly Silver, and then Governor
19 Elect Cuomo, and they say the following: "What
20 ever the currently perceived economic benefits of
21 drilling either to the state or individual land
22 owners they will be wiped out by the taxes and
23 fees necessary to fund filtration systems and
24 other safety measures. With this state already
25 struggling to close a \$10 billion budget gap this

1
2 year and \$15 billion next year, how can it be in
3 the best interest of New Yorkers to saddle us with
4 more cost all while polluting our water and
5 endangering our food supplies both upstate and
6 downstate. Three Parks Independent Democrats you
7 can find us at threeparksdems.org."

8 We actually met with some of
9 Governor Patterson's personnel on this issue, and
10 we learned following and subsequently since that
11 time that the staff of the State Department and of
12 Environmental Conservation, which is in charge of
13 oversight and inspections, has been cut
14 drastically and may be cut even further. The
15 state has no contingency plans and no resources to
16 deal with a worst case emergency, particularly one
17 that could affect our drinking water and there is
18 no requirement that drilling companies have the
19 finances equipment or knowledge to deal with an
20 emergency. If we have learned nothing else from
21 the catastrophe in the Gulf of Mexico is that
22 industry cannot be relied upon to consider or be
23 prepared for emergency scenarios, and-

24 CHAIRPERSON GENNARO: Please
25 conclude. Please conclude

MS. GERARD: And finally, I just want to say with all of the water that comes back up the perfect analogy is pouring a can of soda into a swimming pool once it is in there you can't stop it from going everywhere.

CHAIRPERSON GENNARO: Thank you. [applause] And thank you for collecting all of those signatures that's great work. Then next panel: Julia Walsh, Frack Action, Claire Sandberg, Frack Action, looks like Shiu Lin, of the Gray Panthers, Tracy Carluccio, it looks like from Delaware Riverkeeper Network, Eric Weltman of Food & Water Action. I just want to note the sergeants that I just call five people and five people will probably need an extra chair. And Samara, if you could swear the panel. We have to, the sergeant will find a chair for your sir.

MS. SWANSON: Please raise your right hands. Do you swear or affirm to tell the truth, the whole true, and nothing but the truth, today?

CHAIRPERSON GENNARO: Thank you. Thank you. I have some statements coming my way? Is that right? Okay. Why don't we do it in the

order that I got the statement in my hand. Eric Weltman, okay. Let's start the clock. Mr. Weltman, if you can state your name for the record and proceed in with your statement.

MR. WELTMAN: Thank you, my name is Eric Weltman and I am with Food & Water Watch a not for profit organization whose mission is to ensure our food and water are safe accessible and sustainable produced. I want to thank the Committee on Environmental Protection and Chairman Gennaro for holding this hearing.

The DRBC should freeze implementation of any regulations until two conditions are met first the U.S. EPA completes its assessment of the impact of fracking water resources. The comment period is extended including holding hearings in New York City and Philadelphia. That said when it comes to protecting public health common sense wisdom often applies better safe than sorry also known as the precautionary principle.

Food & Water watch supports a ban on fracking in the Delaware River Basin and in New York State. The research and evidence is already

1
2 clear under normal condition fracking poses a
3 threat of spills and leaks into our water supply,
4 produces hazardous waste, uses massive quantities
5 of water, and causes gas to migrate into drinking
6 water. And as we have learned time and time again
7 with fossil fuels, accidents can happen they do
8 happen they can be catastrophic. Even the
9 strongest regulation can't protect us from
10 insufficient government oversight or enforcement
11 or shotty corporate practiced.

12 We thank the Committee on
13 Environmental Protection and Chairman Gennaro once
14 again for holding this hearing. Granting New York
15 City a voice and lending your own you are already
16 playing and important role. We have two
17 additional suggestions at present. One is to join
18 use for calling the Obama Administration and the
19 EPA in urging the U.S. Army Corp of Engineers vote
20 against moving forward to the DRBC fracking
21 regulation. Another is to urge the present Cuomo
22 Administration to provide the DEC with sufficient
23 time, staff, and resources necessary, including
24 waiting to 'til the EPA completes a study of the
25 state's regulatory review of fracking. New York

City's drinking water is more important than dirty fossil fuels.

CHAIRPERSON GENNARO: Thank you

MR. WELTMAN: Thank you.

CHAIRPERSON GENNARO: Thank you very much Mr. Weltman, appreciate that, appreciate that. Thank you. Okay Claire right? You have to turn and speak right into it for some reason I can't hear you. Do you have a statement Claire?

MS. SANDBERG: No I don't have a written statement. I just-

CHAIRPERSON GENNARO: [interposing] You got it. Okay. We are not going to waste time trying to set the clock because that will be, like, a strange irony, please continue.

MS. SANDBERG: Okay. So every speaker who has been up here has talked about why for various reason these regulations are wholly inadequate to protect the public health and environment.

I just want to spend a minute drawing attention again to the failures of this regulatory process. The DRBC has decided to move forward in releasing these draft regulations

1
2 against the urging of former Governor Patterson,
3 New York City Mayor, Michael Bloomberg, the New
4 York City Council and the Philadelphia City
5 Council. Through letters and resolutions the
6 governments of the largest stakeholder populations
7 called on the DRBC with unanimity to delay the
8 issuance of draft regulations. Despite this
9 overwhelming opposition of the government of these
10 stakeholder areas the DRBC moved forward with the
11 releasing these regulations. And with this wholly
12 inadequate short public comment period DRBC has
13 held three public comment sessions one in Trenton,
14 New Jersey, population 85,000, in Honesdale,
15 Pennsylvania population 13,000, and in Liberty,
16 New York population 7,000. In total given time
17 constraints at the hearings about 225 people were
18 able to speak and submit their comments directly
19 to the DRBC. All of this begs the question, how
20 does this exactly does the DRBC define
21 stakeholder? The DRBC has repeated indicated that
22 they are not interested in involving the majority
23 of the stakeholders in this regulatory process or
24 even acknowledging that the biggest populations
25 centers are in fact stakeholders. This is

particularly outrageous considering that New York City is legally mandated to maintain the river's flow and quality downstream and that New York City taxpayers have already invested over 1.5 billion dollars in watershed protection of the Delaware River. It is outrageous that we been having this conversation at the last DRBC meeting, the DRBC estimated the gas industry plans to withdraw 10 billion gallons of our drinking water over the next ten years. On that basis alone, just saying nothing of radioactivity, fault lines, air quality, we should be demanding the Delaware River be taken permanently off the table for gas drilling. And I just wanted to say-

CHAIRPERSON GENNARO: Clairra

MS. SANDBERG: I just wanted to say-

CHAIRPERSON GENNARO: Very briefly.

MS. SANDBERG: 5 pm we are going to take this message to the Army Corp of Engineers and demand the President Obama do what the Army Corp and the DRBC will not do.

CHAIRPERSON GENNARO: Okay, okay.
Claire. Julia. Thank you Claire.

MS. WALSH: There-

CHAIRPERSON GENNARO: [interposing]

You got to speak right into the microphone.

MS. WALSH: Here we go. The DRBC isn't here and they have been having an official hearing. Tomorrow we really to make sure that this process is delayed further. That there is a real hearing here in New York City the DRBC is at.

I just wanted to highlight really that New York City has more tools at its disposal that need to be looked into. There are legal strategies that New York City could be pursuing. There are also things, such as, supporting other municipalities that are pursuing bans and such things. I wanted to highlight the Buffalo, the city of Buffalo, has banned fracking, has disposal of any waste water and also different waste of disposal on their landfills from the entire city limits.

I also wanted to highlight that fracking wastewater has been for the past year and a half into the Niagara River without any oversight and into Niagara Falls. And these are stories that still have yet to be told and really

1
2 need to be put on record right now that this has
3 happened.

4 One of the things that is really
5 important to recognize as well as the
6 infrastructure here in New York City is very
7 susceptible to the fracking process I am from
8 Upstate New York where in Napina [phonetic] people
9 for the past 20 years have been suffering having
10 water consuming their basement every day for 20
11 years because the water tunnels are leaking with
12 massive fracking operations that could cause
13 triggering of fault lines and other geological
14 formations. We can see really a lot of more
15 problems in that area.

16 Because I have 20 seconds left to
17 go I just wanted to say please look into all the
18 legal strategies at your disposal and also come
19 out at 5 pm everyone to the Army Corp of Engineers
20 down the block here at Broadway at Federal Plaza
21 to call for Obama to talk the Delaware off the
22 table. Thanks.

23 CHAIRPERSON GENNARO: Thank you
24 Julia. Let me just take this opportunity. I
25 check earlier in the hearing there was a

1
2 representative from the state DEC. I was
3 wondering if that individual was still in the
4 room. Okay. Okay. So, now since that person is
5 not here lets just say that there is someone else
6 here from DEC. Is there anyone here representing
7 state DEC or representing state agency in the room
8 right now? Okay that's sad and unfortunate that
9 all you came out, but your state government didn't
10 have the patience to stay in here and hear what
11 you have to say for even this one hearing. That's
12 most unfortunate. So let's hear next from Ms.
13 Lin. Please state your name and continue

14 MS. LIN: Right. I am Shiuho Lin.
15 I am a member of Gray Panthers and the Gray and
16 the Green Coalition. We are completely right. We
17 have to speak to our representatives in the
18 government office to solve the problem we have
19 just going to do that, and we have been doing
20 that. New York City water 90 percent comes from
21 Catskills and Delaware and it come unfiltered and
22 it is high quality. And we don't want anything
23 happen to those kind of water.

24 And let's look at the hydro
25 fracking, hydro fracking goes down a miles down

1 and go another mile horizontal and a lot of the
2 secret formula, we don't even know what it is, and
3 it is also bring out the massive corrosive salt
4 and the casein [inaudible], and radioactive and
5 other kind of things we don't know what to do with
6 them there are so many, so much things in there.

7 And we urge the DRBC to wait until EPA has the
8 result come out 'til next year. I also look at
9 that the DRBC regulation what did they write:

10 They said that they have a setback of 500 feet
11 this is completely wrong apparently this is does
12 not cover horizontal fracking because it is drift
13 of one mile, so I would like them to fix that and
14 also when they talk about the waste the only call
15 for measure hydro fracking fluid, but they have to
16 consider whatever come out from underground they
17 radioactive isotope and other things. Also what
18 the disposal I would think they them temporary
19 store have to be completely water proof seal and
20 have to be cover and whatever the material it have
21 to go to along the standard government regulation
22 for the disposal. And I thank you I have one more
23 thing. I also mention an ounce of prevention is
24 pound of cure.

CHAIRPERSON GENNARO: Thank you

MS. LIN: No hydro fracking. Thank
you.

CHAIRPERSON GENNARO: Thank you
very much I appreciate it. Ms Carluccio, it says
here that you came from Bristol Pennsylvania.

MS. CARLUCCIO: Yes, thank you for
taking testimony since the DRBC will not come to
the people, and thank you for continuing to stand
up for clean water.

As you know the DRBC was
established as a inter state agency responsible
for conserving and managing the water resources of
the Delaware River Basin many decades ago and the
DRBC is required by legal mandate to maintain the
exceptional water quality of the river do to
strict anti-degradation standards under their
special protection water program, and those
regulations are required to prevent pollution and
avoid degradation of those waters. That's a
stricter standard of the state.

CHAIRPERSON GENNARO: [mumble]

MS. CARLUCCIO: Did you want to
interrupt?

CHAIRPERSON GENNARO: Well. no.
Please continue.

MS. CARLUCCIO: The Delaware River special protection waters have been regularly tested for decades existing water quality is exceptional due largely to its intact 89 percent forested upper water shed. This designation requires that that high water quality be maintained for the entire 197 miles of it, the longest stretch of anti-degradation waters in the nation.

These gas rules that have been issued do not provide the regulatory framework, which would meet the mandate of no measurable changes in water quality except toward natural conditions and the protection of the water supply for 15 million people. I have supplied extensive comment here to you today on the specifics of that but we like to say that until the scientific studies are done by the EPA and the DRBC in New York there is no way the commission has the scientific basis it requires to put meaningful rules in place or to decide whether or not the can even been done safely. And finally I'd like to

say that probably the most significant thing about these rules, the fatal flaw, is what is missing from these rules. The DRBC has the power in our opinion to overrule federal exemptions in every major environmental law that the industry now enjoys. They can actually outlaw hydraulic fracturing within the basin based on the ample evidence that is at hand right now because of the pollution risks, based on your high standard that they have to meet the obvious water quality concerns that relate to the injection into the ground of hazardous materials is one thing but the water resource completion that will result from these tens of thousands of wells and on and on. I know that my time is up and I know that a lot of people are waiting but we have two things that we want to ask you to do. We ask the City Council to pass a resolution-

CHAIRPERSON GENNARO: [interposing]
Well you should have a side bar right now.

MS. CARLUCCIO: Extend public comment and also to put advance these rules once the completed the public process and all scientific studies have been completed.

CHAIRPERSON GENNARO: Thank you

MS. CARLUCCIO: Thank you.

[applause]

CHAIRPERSON GENNARO: I appreciate that, thank you. Okay the next panel. We have Frieda Bradlow of Manhattan Community Board 2, Ellen Peterson Lewis also Manhattan CB2, Joy Garland CB6 in Manhattan, Jeff Galloway Manhattan CB1. I just want to make sure there is everybody.

[background noise]

MS. SWANSON: Can you please raise your right hands. Do you swear or affirm to tell the truth, the whole true, and nothing but the truth, today?

MR. GALLOWAY: I do.

MULTIPLE VOICES: Yes.

CHAIRPERSON GENNARO: Thank you. What we'll do is we'll start. Right. We'll do the panel from your right to left, so let's get started. So state your name for the record and be mindful of the two minute clock.

MS. PETERSON-LEWIS: My name is Ellen Peterson-Lewis and I am representing Community Board 2, Manhattan. And I would like to

1
2 read a statement by community board 2 regarding
3 hydraulic fracturing.

4 We appreciate the opportunity to
5 provide a statement strongly opposing hydro
6 fracking and we join many others today who are
7 calling for a ban on this process entirely, not
8 only in our city watershed but within New York
9 State as a whole. Hydraulic fracturing or hydro
10 fracking is a very dangerous process that has been
11 shown repeatedly to cause terrible irreversible
12 damage to humans, animals, and the environment.

13 Two years ago at our March 2009
14 full board meeting, we unanimously passed a
15 resolution strongly opposing hydro fracking a copy
16 of which is attached to this statement. We
17 continue to stand by this resolution and we are
18 very proud that our board was in fact the first
19 board to hold a hearing or pass a resolution on
20 this matter, since then, sadly, there have been
21 very alarming, thank you Frieda, revelations on
22 the process including that various and state
23 officials had been lied to concerning the use of
24 diesel fuel in the process paren (which is
25 illegal) parens, and it is shocking to learn that

this process produces large amounts of radioactive waste.

Moreover, it has been revealed that the wastewater created in this process is typically dumped in to clean water supplies. Regulations is not the answer since we know that enforcement is always the problem so we continue to seek a complete ban on hydro-

CHAIRPERSON GENNARO: [interposing]

Thank you

MS. PETERSON-LEWIS: -fracking all together.

CHAIRPERSON GENNARO: Thank you.

MS. PETERSON-LEWIS: And I'd like to thank the Chairman.

CHAIRPERSON GENNARO: That is not necessary.

MS. PETERSON-LEWIS: Thank you.

CHAIRPERSON GENNARO: Thanks very much.

MS. BRADLOW: I am Frieda Bradlow also from Community Board 2. Mr. Gennaro was at our forum two years ago where we saw the beginnings of the movie Gasland, as a matter of

fact. We had Riverkeeper and everybody else since then we have spent a lot of time trying to inform ourselves about what we are dealing with when we oppose hydro fracking

The point that I would like to make is that over the past two years, no matter what we have learned it is not enough and there is always new stuff coming out. On April the 15th of 2010, I went to a forum at Copper Union, which was a scientific forum, aside from Al Appleton, we had Professor Theo Colborn from the University of Colorado give us information about the effects on health because of air pollution, noise pollution, and the number of chemicals that were being used we had been hearing over 200 chemicals. What was revealed that night scientifically is that there are 944 products used and only 14 percent are known 632 total chemicals and no information on 279 of them, so years later we are still learning information about the effect.

The medical effects are well known. On February the 21st, I participated in a teleforum if you can Google Maude Bradlow of Canada, fascinating.

CHAIRPERSON GENNARO: Thank you.

Thank you. And before we hear our next witness we gave a, we made reference to the fact that the state, you know, DEC was not longer in the room; however the city DEP is still in the room and I thank them very much for that.

[applause]

CHAIRPERSON GENNARO: Please.

MS. GARLAND: My name is Joy

Garland and I am speaking as a member of Community Board 6 Manhattan which is already passed a resolution banning hydro fracking in New York and I am also speaking as a former science teacher at the UN International School and presently as a non governmental representative of a woman's organization at the United Nations.

Today's New York Times reports a 4.7 magnitude earthquake in Arkansas and says that there is quote "a growing body of research suggesting that injection wells can induce earthquakes, and there is some circumstantial evidence that this might be happening in Arkansas," end of quote. I believe that the Halliburton technology known as hydraulic

fracturing is the biggest environmental threat that we are facing right up there with climate change and not just in New York or the United States but all over the world there is still little awareness of New Yorkers and the world's people of the price we must pay in the loss of million of gallons of fresh water needed for the consumption and growing crops.

The world and including the United States is already running short of fresh water. Only about 3 percent of the world's water is fresh and 2 percent of that had been locked up in glaciers and icebergs, which are beginning to disappear now due to global warming. Of less that one percent of fresh water is left how much of that is uncontaminated and available. Our bodies need up and are made up of 70 percent water. Instead of continuing to drill for gas and coal we should put our resources into developing renewable energy. At a recent meeting in the general assembly, I heard a young boy named Felix Finkbeiner say you grown ups know what to do but we kids are wondering why you don't do it.

[applause]

CHAIRPERSON GENNARO: Thank you.

Thank you. Out of the mouth of babes, right, that is what they say. Yes thank you for that, yes.

MR. GALLOWAY: My name is Jeff Galloway speaking for Community Board 1, which is where we are right now. Well to our community board. I am chair of the Planning and Community Infrastructure Committee. Our community board has past numerous resolutions on the issue of hydro fracking. On May 26, 2009, we passed our first resolution calling on New York State DEC to prohibit the use the hydro fracking in New York City watershed or concern then and now is that fracking involves the injection of carcinogens chemicals into the earth at extreme pressure. The composition of these chemicals is not publicly disclosed and there has not yet been sufficient public review of the effects these chemicals can have on drinking water without more information we are greatly concerned that hydro fracking in New York watershed poses a serious risk of contamination of the drinking water of millions of residents of New York City.

New York State legislation bill

introduced in 2009 and co-sponsored by State Senator Squadron was introduced with the aim of amending the environmental conservation law to protect New York City watershed. We supported that resolution by our own resolution of November 24, 2009 it did not succeed in 2009 but we do believe that such legislation continues to be necessary, and we support our own local elected official that support that type of legislation.

The EPA has submitted comments to the draft supplemental generic EIS in December of 2009 and those comments show serious concerns with the draft generic EIS. And in response to that we passed resolution in February and April of 2010 calling for the Governor and DEC to withdraw the draft supplemental EGIS.

One of our main concern since then has been the generation carcinogenic waste water as we have discussed before in this weekend's New York Times article also disposed it, not only does the waste water contain chemicals, but it contains radioactive items as well, and it show that these radioactive waste water products have not been appropriately addressed in Pennsylvania and we can

expect similar problems here.

Our community board had strongly advocated for green energy solutions and environmentally friendly construction and living at the same time we recognize that the long term interest of the economy require expensive fossil fuel extraction that may be true; however, our pursuit of energy does not come at the cost of public health.

Finally, community participation is an important part of reviewing hydro fracking and we ask that you, members of the Council, the Governor, EPA, DEC and others allow for a citizens and technical advisory committee to assist DEC in the revision of the generic environmental impact statements. Thank you for time.

CHAIRPERSON GENNARO: Thank you, thank you all very much I appreciate this panel very much for being here. Thank you for your patience. Thank your being here. Next panel: Ken Baer from the Sierra Club, Marion Rose from Croton Watershed Clean Water Coalition, Patrick Krug it looks like from NYPIRG, Pat Carulo from Damascus Citizens, Buck Moorhead from NYH20, Annie

1
2 Wilson also from the Sierra Club, and Mav
3 Moorhead. If all these people are still here,
4 this is going to be one big panel but one good
5 one. And so the sergeants may have to deploy some
6 more chairs.

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

11 CHAIRPERSON GENNARO: Thank you
12 thank you all for being here, and I really
13 appreciate your patience in the wait this long to
14 testify. It is duly noted and very much
15 appreciated. Why don't we start this time from
16 this side of the table. Why don't we start with
17 Buck and go back and go that way. Buck, good to
18 see you.

19 MR. BUCK MOORHEAD: My pleasure

20 CHAIRPERSON GENNARO: Sure. Just
21 state your name for the record and commence with
22 your statement.

23 MR. BUCK MOORHEAD: Buck Moorhead
24 co-founder of NYH20. I really appreciate this
25 opportunity to speak again and Councilman Gennaro

all your efforts over these couple long, very long years I am going to skip my comments actually, you have them there. I appreciate very much hearing the members and the previous panel CB, community boards commenting NYH20 spent a couple of years going to community board and reaching out to them and relative cumulative impact which is very much what everyone care about. I want to tell a story. We made a presentation up at CB5 in the Bronx, this is probably a year and a half two years ago. Board President Doctor Bola Omotosho from Nigeria. He's an oncologist here in New York City. We talked about hydro fracking; he new all about it because they have been doing it for 30 years in Nigeria, and his comment to us regarding cumulative impacts was that the average lifespan in Nigeria is 61 years old in the Niger Delta where Chevron was oil drilling, natural gas drilling for 30 years the average life span is 41 years old. That is a cumulative impact, not a study not apples to apples cause I am sure it wasn't regulated but very significant.

Second this that I want to speak about complexity science. In the science of

1
2 complexity, and there is one, one of the criteria
3 or properties is if you have a small input into a
4 system you can have a very large unpredicted
5 outcome in that system. That is the science of
6 complexity. In this situations the DRBC absent
7 cumulative impacts is planning to simple monitor
8 what happen and if something goes wrong they
9 expect to make a change. In a complex system,
10 which the hydrology of Delaware River Basin is,
11 you cannot assume you will have a small impact.
12 And I'll say that concludes my remarks. Thank
13 you.

14 CHAIRPERSON GENNARO: Thank you.
15 Thank you Buck, a pleasure to see you. Annie.

16 MS. WILSON: Hello good afternoon,
17 I am Annie Wilson with the Sierra Club as Energy
18 Committee Chair, and I would like to address
19 matters that have not been spoken of that relates
20 to the DRBC and the DEC.

21 However, regarding the water
22 withdrawal we need to examine what is taking place
23 given that we are very concerned with the
24 discharge of the fluids from hydro fracking.
25 There is currently a bill pending at the state

1 level which is the A05318 that would regulate the
2 withdrawal of 100,000 gallons a day or more and
3 the concern at this time is very similar to what
4 is taking place with hydro fracking: the studies,
5 the reporting, and the regulation. We are about
6 to regulate water withdrawal of 100,000 gallons a
7 day without having examined the reporting is for
8 100,000 dollars, sorry 100,000 gallons a day as
9 required by the Great Lakes Compact which would
10 have had the DEC reporting to us what the large
11 withdrawals are they were to report by February 1,
12 2010, February 1, 2011 for each of the large
13 withdrawals of 100,000 gallons a day or more.
14 There has been FOI request submitted yesterday to
15 get them that information.
16

17 Essentially I wanted to bring this
18 matter to your attention and hope that you would
19 be able to inquire what these large water users
20 are. The concerns with the bill, and this is a
21 personal concern; I speak on behalf of myself are
22 that we are regulating without the reporting.
23 There are provisions for exemptions and I hope
24 that you will take a look at this matter. Thank
25 you very much. I also have comments submitted by

Gusti Bogock who has left and from Marilyn Stern, as individuals for you.

CHAIRPERSON GENNARO: Thank you Annie. I appreciate that.

MS. WILSON: Thank you

CHAIRPERSON GENNARO: Thanks. Thanks you very much for being here. Marion, hi long time no see.

MS. ROSE: Good morning [inaudible] just talk on two topics due to water quality due to high levels of radioactive waste the fresh water quality due to the destruction of watershed forest levels of radium 226 in New York State watershed including the usually high 267 times the safe limits for discharge into the environment and thousands of times the safe limit for drinking water. Radium 226 emits high-energy alpha particles they can be fatal if inhales or ingested. Young children are especially vulnerable according to research in the American Academy of Pediatrics. In addition radium 226 has a half-life of well over 1000 years. Over 40 generations that could be confronted with an increasing accumulation of dangerous radioactive

1 waste. At present, after cursory treatment, much
2 of the waste is simple discharged into a nearby
3 stream or river the Allegheny River is one such
4 example where this waste is discharged upstream to
5 the water filtration plant that is suppose to
6 provide safe drinking water. Unless a failsafe
7 method can be found there should be no fracking in
8 the Delaware River Basin.
9

10 Two, the New York State Marcellus
11 shale is largely forested. It is a scientific
12 fact that forests are among the very best producer
13 of clean water. The intricate network of roads
14 needed to access the numerous drilling units and
15 the pipelines and heavy equipment fragment the
16 forest and destroy its ability to provide clean
17 potable water. Every 10 percent increase in
18 forest cover municipal systems watershed, any
19 municipal system's watershed, cost of water
20 treatment decrease by 20 percent according to Mr.
21 Nanapoli [phonetic] Even though not a single drop
22 of pollutants reach the water resource due to
23 fracking the lost of forest will guarantee a
24 severe loss in water quality. Fracking should be
25 prohibited in the forest of the DBR watershed.

CHAIRPERSON GENNARO: Thank you.

[applause] Thank you Marion, good to see you again. Mav right?

MS. MAV MOORHEAD: Mav. I'm Mav Moorhead and I co-founder of NYH2O. The Delaware River Watershed had been ignored at the possible imminent peril of it impending demise regard to toxic contamination proven over and over again in other parts of the country has been on scientific study to confirm its safety and we are simply left to trust the action of the profit driven gas industry to ensure some safety. It is clear that this trust is frivolously misplaced. No measure of rules or regulations could every be drawn efficiently regarding all the facts on the hydraulic fracturing that has yet been brought to light.

Waste water storage facilities, holding inadequate impoundments in their placement and leech and evaporate, contaminate air and ground water, suffer toxic infringement for unlimited year to come, has loophole after loophole allow to suffer ill effects that allowed to migrate indeterminate distances and degrees.

1 All that exasperated by a threat of flooding and
2 erosion have all been ignored since the industry
3 is now leading 85 percent of chemical produced
4 waste water in the frack wells these wells should
5 be classified as injection wells under the seeker
6 rules specific ingredients of hazardous toxic
7 compounds that result in mix combination that have
8 not known in detail withholding this critical
9 information by the industry is reason enough to
10 wait until the reaction to further this
11 development process is permitted. Allowing the
12 process without full disclosure of the chemicals
13 is tantamount to negligence of the highest order.
14 Known carcinogens chemical are allowed to be used
15 by the industry with every fracking effort.
16 Radiation, exceptionally high level of radiation
17 in the produced toxic water in the Marcellus shale
18 with no acceptable means of disposal has no
19 foreseeable answer. Injection wells and landfills
20 do not offer any rational means of disposal for
21 radiation what so ever. Thank you.

22
23 CHAIRPERSON GENNARO: Mav thank you
24 a pleasure to see you. I thank you so much for be
25 here. Ken, again old friends.

1
2 MR. BAER: My name is Ken Baer and
3 I serve as chair of the New York City group of the
4 Sierra Club. The Club has over 12,000 members in
5 the city over 37,000 members in the state and
6 625,000 members nationwide. The Sierra Club
7 thanks the City Council for this opportunity to
8 testify on the Delaware River Basin Commission's
9 draft of gas drilling regulations.

10 Sierra club believe the DRBC should
11 suspend the current rule making process and not
12 permit gas exploration or drilling within the
13 basin until exhaustive studies are complete
14 including the current EPA study, the New York
15 State DEC supplemental generic environmental
16 impact statement, and DRBC's assessment of
17 cumulative impacts. Burden of proof should be on
18 the natural gas industry to demonstrate that the
19 process is safe and will not harm water quality.
20 The DRBC has a statutory for your obligation to
21 protect the water quality or the 15 million
22 citizens that rely on the Delaware River, its
23 tributaries, and its ground water for drinking
24 water.

25 The commission should imposed a

strict burden on the drilling companies and demonstrate that these activities will not cause harm. The draft rules do not address the cumulative impacts of water withdrawal, well development, or waste disposal. Without an accounting on thousands of wells collectively may impact lands, streams, but the Delaware River itself never understand the true impact embodied in the individual well. The draft rules do not place any restrictions on the chemicals that drills can use to drill and hydraulically fractured gas wells. Among the most disturbing provisions among DRBC's proposed regs are: one, an expedited process, approval by rule would be available and that some project will be up for less scrutiny than others; two financial assurance requirements for plugging, and remediation pollution from natural gas activities will be set at a meager \$125,000 per gas well. A more realistic requirement would be minimum of \$2 million per gas well. Not all sponsors will be required to prepare a natural gas development plan, when all entities should be subject to this process, simple establishing another corporation

1
2 or partnership would circumnavigate the threshold
3 of 5 well pads in 32,000 acres the last fourth
4 point-

5 CHAIRPERSON GENNARO: Ken I got to.
6 I got to stop you, but I got your statement here,
7 and I am very, very appreciative of your very good
8 work that you guys did on this, and you guys are
9 always there for us, I really appreciate it thank
10 you. Thank you.

11 MR. KRUG: Good afternoon, my name
12 is Patrick Krug and I am chairperson of NYPIRG's
13 board of directors. I am representing NYPIRG
14 today in the place of my colleague Kathleen Breen
15 who couldn't make it.

16 The New York Public Interest
17 Research Group has long been active in protecting
18 New York's drinking water supply and we thank the
19 City Council for holding this hearing.

20 Through comprehensive watershed
21 protection efforts we believe the city's \$1.5
22 billion protect to date has paid off. New York
23 City's drink water has remained clean and the city
24 has been able to avoid filtration under the
25 federal Safe Drinking Water Act thus far.

Never before has there been such a threat to the integrity of our water supply as the threat of natural gas drilling in the New York City watershed. Horizontal hydro fracturing carries a potential huge environmental price tag. Unfortunately the draft supplemental generic environmental impact statement released by the New York State Department Of Environmental Conservation did not provide the needed assurances that our water supply will be safe. Through executive order, the public will have another opportunity to comment; however, before it sent back to the public, we believe, the state must broaden the scope to study, make regulation rather, than permit conditions, address cumulative impacts, ensure the protection of ground water and surface water, address where the enormous amount of water used for drilling will come from, fully disclose all chemicals, insure proper disposal of waste water once laden with toxic chemicals and radioactive material, and have adequate staffing and resources at the DEC.

Once the DSEGIS is updated and re-released we urge the state to hold new public

hearings and give the public sufficient time to comment. Water withdrawals from the New York City watershed subject to review and approval processes established by the Delaware River Basin Commission.

Despite objections from many including New York State and New York City as well as in numerous environmental and citizen group the DRBC has decided to issue draft regulations for hydro fracking without undertaking a true environmental review that included sound scientific analysis. The draft regulations if adopted would impose different rules for identical gas developments in different watersheds within the same state.

The draft regulations do not address cumulative impacts, do not restrict chemical usage, do not restrict diesel fuel, and do not provide the wastewater standards. Simply put the draft regulations do not protect water quality and instead rely on industry self regulation.

NYPIRG students and staff especially at SUNY Binghamton and SUNY Cortland

are in the drilling epicenter are actively engaged in educating and grounding students and citizen in the community. Those campuses and all of our campuses state and citywide are circulating, what I hope to be giant, petition for Governor Cuomo requesting the points mentioned in my testimony.

We must be sure all New Yorkers are protected from the dangers of hydro fracking. Thank you for providing me the opportunity to testify for you today.

CHAIRPERSON GENNARO: Thank you. Thank you Mr. Krug and it looks like we got a late start on the clock with that you've might have got a little extra time, or something. This is a really great panel I really, really appreciate it and please give my best to Kathleen, it has been a long time seeing her.

One of the cool things about this committee is that we have, like, really great witnesses. People with name like Buck who show up in cowboy boots. Like other committees just don't get that, you know, and so that is what makes this committee, I think special. We got good witnesses.

Thank you all very much I appreciate it, appreciate your being here. Whoops pardon me, Council Member Levin has a question for the panel. It is the second time we made that mistake today. We are grateful to Steve Levin, he had a commitment. He is so concerned he came back we are really grateful for that. I recognize Council Member Levin.

COUNCIL MEMBER LEVIN: Thank you Mr. Chairman, and thank you all for your good work and your leadership on this issue. I think Kathleen Breen actually lives in the 33rd district as I recall, but what I wanted to ask is kind of a more political question, kind of. I mean has the new administration reached out to your organizations or to your community. Do you feel like there is a dialogue with this new administration? There is a new administration, a new commissioner of DEC. Has anything changed since the last one? What was your dialogue like with the previous administration? Anyone can answer that. I am just curious what's doing on in the government.

MR. KRUG: I think that the present

1
2 sense that we had in the early part of the
3 administration has been that there has been so
4 much focus on the budget that it hasn't been a
5 good time for us to reach out directly that it
6 would be wasted energies, so we as a citizen's
7 group we are kind of gearing up for the spring.

8 COUNCIL MEMBER LEVIN: Anyone less
9 could.

10 MS. WILSON: I would like to
11 comment on the direction of the climate action
12 plan or its misdirection and its directives and its
13 failures and that we should be very involved in
14 that space and that process.

15 COUNCIL MEMBER LEVIN: And then
16 with regard to the EPA. Sorry did you want to add
17 something as well.

18 MS. MAV MOORHEAD: I just wanted to
19 mention that we do plan to go up to Albany and
20 bring a number of people up there to address the
21 new Senators and Assembly that would have come
22 into power and perhaps are not up to speed as to
23 what this particular issue is all about. They
24 claim to know so much about it but then going into
25 meetings with them they all of a sudden have a

1
2 change of heart as to what they preconceived
3 notion as to what it was as to what it really is.
4 There is on doing that we are planning on doing
5 that.

6 COUNCIL MEMBER LEVIN: Great, I
7 mean the reality is that, go ahead. I was going
8 say that the reality is as a legislator I
9 appreciate being educated on this issue it is
10 certainly is helpful for those of your that have
11 expertise in the area to share with us, to school
12 us, we appreciate it.

13 MS. ROSE: If I could be helpful at
14 Croton Watershed Water Coalition is a educational
15 coalition and not a political one.

16 COUNCIL MEMBER LEVIN: I
17 understand. I am more on the education side as
18 helpful to the legislators, that is what I am
19 trying to say.

20 MR. BAER: The Sierra Club has had
21 discussions with the DEC regarding a water
22 withdrawal bill that Annie Wilson previously
23 referenced, introduced by Assembly Member Sweeney,
24 and we have great concerns about it and when the
25 chair of our New York State chapter spoke with

1
2 some important figures within the DEC we were told
3 that they initially discussed this bill with
4 members of the industry, which I guess was the
5 business council and maybe agricultural
6 organization and the did not consult with the
7 environmental groups and they are the former
8 administration is considering making this a
9 program bill, so we are very focused on this and
10 we would prefer that they would have consult with
11 us beforehand.

12 COUNCIL MEMBER LEVIN: Thank you
13 all very much I appreciate it. Thank you Mr.
14 Chairman.

15 CHAIRPERSON GENNARO: Thank you.
16 Thank you Council Member Levin, thanks to this
17 panel.

18 The next panel is Deanna Bitetti,
19 Common Cause of New York, Stephanie Low NYH20,
20 Arden Down of the Women's City Club of New York,
21 Fay Muir of Fay Muir CWCWC, Barbara, like,
22 Arrindell, Damascus Citizens. Okay if you could
23 swear the panel that is all we need.

24 MS. SWANSON: Please raise your
25 right hands. Do you swear or affirm to tell the

truth, the whole truth, and nothing but the truth,
today?

CHAIRPERSON GENNARO: Thank you,
yeah so why don't we start with this side. Why
don't we start with Fay and work out way this way.
Fay Muir, just state your name for the record Fay
and proceed.

MS. MUIR: Fay Muir, Croton
Watershed Clean Water Coalition. An examination
of the American tax code indicates that the gas
and oil production is among the most heavily
subsidized businesses with tax breaks available at
virtually at every stage of the exploration and
extraction process. According to a study by the
Congressional Budget Office, capital investments
like land leases and drilling equipment are taxes
at an effective rate 9 percent, significantly
lower than the 25 percent for businesses in
general lower than virtually any other industry.
On small and mid-size companies the tax on capital
investment is so low it is more than eliminated by
various credits.

These companies have been
aggressive in using foreign tax havens, where they

are subject to lower taxes and less stringent safety staff regulation. They get record profit and pay little or no taxes.

Many say gas drilling will bring jobs and economic opportunity and the possibility of disaster is low. One disaster is too many in terms of environmental clean up costs if that is possible to be achieved. Also cost in terms of human health related problems. The agricultural industry is under tremendous threat also the wine industry as well as tourism. Which teacher will be willing to take class in an outdoor field trip when toxic hazards seen and unseen can be encountered in forest? I just wanted to point out that this is they type of industry that we are dealing with and why do we want them in New York or anywhere.

CHAIRPERSON GENNARO: Thank you, thank you Fay.

MS. DOWN: Hi I am Arden Down. I am Chair of the Infrastructure and Environmental Committee for the Women's City Club of New York. I am happy to be here. I am going to say some things that haven't been said already.

CHAIRPERSON GENNARO: Thank you.

MS. DOWN: Yesterday I testified at Council Member Darlene Mealy's meeting on Cleanse Foodworks. In the testimony we focused on increasing farming and ranching in upstate New York and distributing New York grown and raised produce, fish, beef, and chicken to New York City, New York City school, New York City period. Much of the focus on the effect on hydro fracking has been on drinking water, but what about the farm raising land, streams, river, and the possibility of mutations in produce, fish, chicken, beef and yes, human beings. The Women's City Club of New York remains and will remain opposed to drilling for natural gas until we are assured that an environmentally safe way has been developed to do so. Thank you.

CHAIRPERSON GENNARO: Thank you, thank you.

MS. LOW: Thank you, thousands of internal documents obtained by the New York Times from the Environmental Protection Agency, state regulators and drillers show that the danger to the environment and health are greater than

1 previously understood. Well researched
2 investigative reporting by the New York Times
3 published just last weekend indicates the Delaware
4 River Basin, which we are a part, is being
5 poisoned. Our governments national and state have
6 not taken the measure essential to our protection
7 right now billions of gallons of toxic waste water
8 from fracking process which contains radioactivity
9 in excess of the FDA for drinking water standard
10 by up to 2100 times. Is being given to water
11 cleaning plants, which admit that they do not have
12 the capacity to remove these radioactive
13 substances that they have cleaned the waste water
14 to the best of their limited ability, they throw
15 it into the river system hoping to succeed with
16 dilution. However, only a few miles down river
17 from some of them there are drinking water intake
18 plants. The drinking water intake plans have not
19 checked for radioactivity since 2005, before the
20 fracking process had spread into the area. The
21 EPA recognizes that radioactivity at this level
22 causes cancer and other serious health problems.
23 The crisis is now, not after the regs.

24 In addition to threat to our water
25

1
2 and lives, the gas industry argument of clean
3 energy is completely undercut by the study of
4 natural gas greenhouse gas emissions that are
5 researched by Cornell professor Robert Howarth I
6 submit a web link to his conclusions, which
7 indicate that natural gas greenhouse gas emissions
8 equal and or exceed those of coal. The research
9 was recently revised based on new information for
10 the EPA and submitted for publication in a peer
11 review journal where it could appear as early as
12 Mid March.

13 CHAIRPERSON GENNARO: Thank you,
14 thank you I appreciate. You are Stephanie is that
15 right?

16 MS. LOW: Yes, Stephanie Low and I
17 am appearing as member of NYH20.

18 CHAIRPERSON GENNARO: Yes it was
19 just important that we get your name on the
20 record, so that the stenographer knows who. Nice
21 to see you Stephanie.

22 MS. LOW: Thank you nice to see
23 you.

24 CHAIRPERSON GENNARO: Thank you all
25 very much for being here I appreciate the City

Club and CWCWC.

MS. LOW: Thank you for the opportunity to speak.

CHAIRPERSON GENNARO: You bet sure.

The next okay. The next panel is Ling Zhou [phonetic] United for Action, Patricia Chernoff, Quakers of New York, Jay Stone, Parson New School of Design, and someone else from Parsons Jean Gardner. Okay sergeant, sergeant. Okay so this is a slightly smaller panel that we called. Counsel is telling me I should also call Denise Katzman from Sane Energy Project, so if Denise Katzman can come forward.

MS. SWANSON: Would you please raise your right hands. Do you swear or affirm to tell the truth, the whole true, and nothing but the truth, today?

CHAIRPERSON GENNARO: Thank you, you know what we are going to start on my right because think this young woman has a very, very brief statement to make, so just whatever you are going to say just state your name for the record and then proceed

MS. CHERNOFF: Patricia Chernoff

1
2 and I am representing Morningside Friends Meeting,
3 a Quaker meeting on the Upper West Side, and I
4 just wanted to say that we, the meeting, oppose
5 the whole process of gas drilling. There is not
6 way of doing it safely and we oppose it. So that
7 is my statement and that is who I represent.

8 CHAIRPERSON GENNARO: Thank you,
9 and we thank your congregation for their good
10 stance on this. [applause] Thank you. Ms.
11 Katzman.

12 MS. KATZMAN: I am Denise Katzman
13 for the Sane Energy Project. The good folks prior
14 to me have said so much wonderful stuff that was
15 included in my testimony so I am going to cut this
16 down to the bear minimum. There is a proposed new
17 nat-gas project it is the largest of its kind in
18 the northeast Spectra Energy and Chesapeake the
19 same company. Chesapeake is the same company we
20 got out of our watershed but it is okay for them
21 to deliver nat-gas to us. Replacing one filthy
22 fossil fuel oil with another nat-gas is outrageous
23 deplorable and from a cradle to grave analysis
24 proves that PlanNYC is highly defective and loaded
25 with unrighteous toxic consequence. The

unregulated test wells and proposed wells in the DRB along with the M shale and all shale plays in the US and elsewhere are part of this fracked up project.

Spectra and as I said Chesapeake are both notorious violators of health, security, and environmental sustainability. As recently as February 23 Chesapeake in Avella, PA gas well explosion, there were three injured and they are currently in the hospital. No to Bloomberg hypocritical nat-gas love affair the majority of the NG for this project is not for New York City and Rockland and Orange County as proposed it's for foreign export.

Sane Energy Project supports true clean energy and the use of all of it minus more use of filth fossil fuels, and there is tremendous, as been stated today, there is tremendous scientific and legal expertise that does exist and continues to prove all of catastrophic assaults that have been mentioned today. All of this creates greater unemployment and obsolete industries. No that is two minutes already.

CHAIRPERSON GENNARO: Yeah. Time flies when you are having a good time

MS. KATZMAN: We are a country on the verge of water wars. Our water is drying up all over the country.

CHAIRPERSON GENNARO: [interposing] Please stay I might have a question for you later.

MS. KATZMAN: Thank you.

CHAIRPERSON GENNARO: Next witness is going to make a statement.

MS. ZHOU: Hello my name is Ling Zhou and I am member of United for Action. By now most of us have read the February 26th New York Times article on hydraulic fracturing, this article simply confirm what we already knew, which is hydraulic fracturing shale gas drilling is causing a major health crisis in this country. It is time that we ban all forms of hydraulic fracturing shale gas drilling, whether vertical drilling or high volume horizontal drilling until this process can be proven safe. No regulations can make it safe. This process is intrinsically contaminating.

Our elected official have the

responsibility to protect the health and lives of the people who elected them to office. Remember the BP oil spill in the Gulf of Mexico. The root cause lies in the deceptive policies and practices of the oil and gas industry. We clearly learned from the BP spill that it is inadvisable to take the oil and gas industry's word that their drilling methods are safe that devastation caused by hydraulic fracturing is far more widespread than the BP spill in the Gulf of Mexico since fracking is taking place right now in 34 states we must stop this practice now. We must not allow fracking to take place in New York State and in the Delaware River Basin. New York State must push back against the oil and gas industry set an example for the rest of the country. Fossil fuels industry of gas and oil coal are a dirty and dying industry of the past century. It is imperative that we move New York State forward with legislation that sets our energy future on a course that is both sustainable and compatible with human health. Thank you.

CHAIRPERSON GENNARO: [applause]

Thank you. Thank you both, and Ms. Zhou Ms.

Katzman we thank you very much for being here; we greatly appreciate it you.

The next panel Owen Crowley United For Action, Mary Ellen looks like also Crowley okay Crowley okay Crownley okay. Patricia Killen [phonetic] New Yorkers for Clean Water, Sandra Salisbury Hancock Citizens for Sustainability, Heidi Gogan, Gogins, and Peter Killen of the Bay Ridge Consumer Federation.

MS. SWANSON: Please raise your right hands. Do you swear or affirm to tell the truth, the whole true, and nothing but the truth, today?

MS. GOGINS: We do.

CHAIRPERSON GENNARO: Thank you, so this we will start to my left and go that way.

MS. GOGINS: Is this on

CHAIRPERSON GENNARO: Yes. Just state your name for the record. Christine set the clock, okay.

MS. GOGINS: My name is Heidi Gogins. I am a life long New Yorker and an owner of a farm in Delaware County in the state of New York and I have been before.

CHAIRPERSON GENNARO: Yes.

MS. GOGINS: I want to thank you for championing of the environment. I'm sorry I didn't wear my muck boots, you were talking about boots.

CHAIRPERSON GENNARO: Yeah right.

MS. GOGINS: I think your nostrils will be grateful. Look everybody said everything that I needed to say. I am a member of Catskills Citizens for Safe Energy, but I am coming here mostly to speak as an individual. This cannot be regulated because we don't have the staff of the DEC to do it. What I want you to do is to get Bloomberg to come out for a ban in New York State that is what I really want. I think that he's got a little bit of a schizophrenic attitude he wants the energy from natural gas, but I don't think he really, really knows what this would mean in terms of catastrophe for the environment. I don't think he knows. I think if he knew he couldn't say that.

It is also going to destroy agriculture in New York State, as we know it, not just organic agriculture all agriculture as we

1 need land, we need air and we need water. Those
2 are the three things we have to have and this
3 absolutely disastrous effect on all of them. I
4 mean you know all this stuff, but you wanted know
5 what we want. Keep fighting and please, please
6 get the state people to talk to you. I don't know
7 how you can do that I'm planning to lie down in
8 front of a few bulldozers when I have to, but that
9 is in the future. [applause] That is all I have
10 to say. Thank you.

11
12 CHAIRPERSON GENNARO: Thank you.
13 Thank you Heidi. You got the clock. Okay

14 MR. CROWLEY: My name is Owen
15 Crowley like yourself I am a former geology major
16 and I've long ago strayed from the righteous path
17 and here it sit before. My father, by the way was
18 a petroleum geologist retired and taught at
19 Fredonia, New York home of the world first gas
20 well and in terms of what people said about the
21 impossibility of supervising well drilling
22 operations, he use to have actually sit on wells
23 representing high schools that need to have the
24 contract executed faithfully. What he told me
25 basically, he can tell stories where driller right

1 before his eyes would try to put substandard, you
2 know, pipes and concrete as a whole and they were
3 going to keep doing it except the provisions of
4 the contract were that they wouldn't get paid
5 unless they follow these very precise engineering
6 things. So, we have heard about blatant
7 violations of benzene injection rules and things
8 like that if there is no consequence that are
9 direct and swift this can't be regulated. Rather
10 than read this statement, which you have, it does
11 say some different things than what has been said
12 here. I'd like to get straight into, I think, the
13 policy parts of it and some suggestions.

14 First of all I'll observe for the
15 poor Mayor, that PlanNYC was date 2007 originally.
16 I think we have all come a long way especially in
17 terms of our understanding of the new hydro
18 fracking technology I think there is room for
19 revision. There is a lot of stuff that is
20 worthwhile in PlanNYC and also certain state level
21 plans, but we need to emphasize the good and de-
22 emphasize the bad.

23 We also need to stop slippery slop
24 of fossil fuel inevitability none of us have
25

1
2 joined the sea and energy project because of more
3 infrastructure and investment fossil fuels the
4 steeper is the path for sustainable energy, so we
5 need to steer the ship more towards sustainable
6 energy while everyone else is going a fossil fuel
7 based economy it is time for New York lead and
8 establish industry in this state that is future
9 oriented.

10 CHAIRPERSON GENNARO: [applause]

11 Thank you thank you very much.

12 MS. CROWNLEY: Good afternoon I am
13 Mary Ellen Crownley and I am a member of United
14 for Action. The gas industry, you know, they are
15 going to make huge profits on drilling and then
16 they are going to ruin our water and they the big
17 corporations are going to sell quote unquote
18 "purified water" back to us and make billions of
19 dollars that way, I guess. Besides the Haysom
20 report said if they, the gas industry, takes so
21 many billions of gallons of water, you know, out
22 to use for hydro fracking the are going to have to
23 build another reservoir for several billion
24 dollars. What is going to happen to the habitats
25 if they take all these billions of gallons of

1 waters out. The habitat need water, like, speaker
2 testify that it is going to ruin our farms; it is
3 going to turn our whole country into deserts. You
4 know there was a big disaster in the Gulf and that
5 was because the regulations that were suppose to
6 protect the Gulf from oil drilling, they were not
7 enforced they were ignored how are the DRBC's
8 regulations going to be enforced our governments
9 keep cutting back enforcement agencies until the
10 point where they are so are ineffective, that they
11 are a joke. So, you know, you have to ban hydro
12 fracking before it causes a disaster like the Gulf
13 only magnified exponentially. Thank you.

14 CHAIRPERSON GENNARO: Thank you I
15 appreciate you being here Ms. Crownley. Thank
16 you. Let me set the clock.

17 MS. PATRICIA KILLEN: Good
18 afternoon, or early evening. My name is Patricia
19 Killen and I represent New Yorkers for Clean
20 Water. We are an organization working to prohibit
21 hydro fracturing in New York State especially in
22 New York City watershed. Hydro fracking fluids
23 have hundred of known chemicals unregulated by the
24 Safe Drinking Water Act are injected into the
25

ground and cause contamination to the water supplies as evidenced by fracking in other states. Contamination of our water will lead to for filtration for New York City costing upwards 30 billion dollars and we don't even know if it will work. From the New York City Independent Budget Office for 2009 brief, our water bills will be raised by 10.5 percent per year and our tax bills will rise to build the plant, which will not be operational until 2026. For each hydro fracking well at least a million or as many as 7 million gallons of water are used. Water is the oil of the 21st century; it is becoming scarcer and scarcer, which will have an impact on relations with other nations we cannot allow our clean New York water to be used and decimated in this manner. The New York State DEC study is woefully inadequate among mired issues it did not take into account the effect of multiple wells, the effects of agricultural products, roads, hospitals, lack of waste water treatment plants, as well ask. The detrimental effects to forests, streams, rivers, and wildlife each will require on acre or more in deforestation and the sound of the drilling has

1
2 been likened to the noise of a jet engine. The
3 accumulation of methane in private wells at home
4 as caused explosions. Can I just finish, sir?

5 CHAIRPERSON GENNARO: Just that
6 sentence.

7 MS. PATRICIA KILLEN: Our rural
8 agricultural will be lit up at night in drilling
9 and we'll turn into an industrial zone. Thank you

10 CHAIRPERSON GENNARO: Thank you
11 very much. Mr. Killen.

12 MR. PETER KILLEN: My name is Peter
13 Killen and I am the Executive Director of the Bay
14 Ridge Consumer Federation and I am total opposed
15 to drilling for gas anywhere in New York State.

16 Ten years ago Christine Whitman the
17 head of the Environmental Protection Agency stood
18 in front of ground zero and told the first
19 responders that were working on the pile that it
20 was safe to be there, the air was clean, and that
21 they doing good work. During the past ten years
22 men and women who listened to her have died.
23 Thousand of first responders and others exposed to
24 the toxins at ground zero are now injured and need
25 help the James Zadroga Bill just passed in

1 Washington. It establishes a program that offers
2 medical evaluations, screening, testing, and
3 treatment for the men and women who responded on
4 that faithful day and afterwards.

5
6 Ten years from now I do not want a
7 bill in Washington doing the same thing for all
8 the residents of New York City, my children, and
9 my grandchildren because they have been poisoned
10 by greed, by toxins, by chemicals we know nothing
11 about. There are millions and millions of words
12 written about the BP oil spill in the Gulf of
13 Mexico and how over time the oil and the natural
14 gas will dissipate and everything will be clear
15 again, clean again, that is a lie. What they are
16 really saying is let's drill baby drill. I say
17 no, no drilling, no way in New York State. There
18 will be scientific claims that there is no danger
19 from the secret hydraulic fracturing fluid that
20 will be pumped into the earth will millions of
21 gallons of water for each well. Nor will they be
22 any danger when those millions of gallons of water
23 and fracturing fluid are pumped back out and
24 disposed of somewhere else. That somewhere else
25 is a mystery, will it be dumped in the land or

1
2 poured into the streams and lakes or into the
3 ocean. Thank you.

4 CHAIRPERSON GENNARO: Thank you.
5 Thank you, I very much appreciate this panel being
6 here and with regard to the pipeline the Spectra
7 is very much of a interest to the Council and
8 something that we certainly have to take a closer
9 looker at. I do get along very well with the
10 Bloomberg Administration and with regard to, they
11 really great things there are not only doing a
12 body of work that they did but what the Hazen
13 Sawyer report and the strong stance against
14 fracking and all the other elements of PlanNYC.
15 But so I just feel compelled to defend the
16 Bloomberg Administration and the DEP they have
17 been very solid partners of mine, but the Council
18 is taking a look at this Spectra thing and it's on
19 my list of things to do.

20 MR. PETER KILLEN: May I also

21 CHAIRPERSON GENNARO: You know what

22 MR. PETER KILLEN: The Spectra
23 application is selective and

24 CHAIRPERSON GENNARO: You know what
25 we are going to do, why don't you have a sidebar

1
2 with Bill and you can give him some of your
3 information. 'Cause we still have a lot of
4 witnesses left and I want to move forward. I just
5 wanted you to know your words on the issue are not
6 lost and but bill talk to Owen about that that
7 would be great.

8 Next panel Brad Weiss from Pace
9 University, Sharon DeSusa, Acki Opo, I don't think
10 I said that right Catskills Citizens for Clean
11 Energy, Hillary Baum representing the Baum Forum,
12 and LuAnne Kozma representing Don't Frack
13 Michigan, okay. Okay you know what. It would
14 appear that most of that panel is not here. I'm
15 going to see that that panel be seated and we'll
16 call the next panel. Arnold Frogel, it looks like
17 from, NYH20, David Publo United for Action, Evelyn
18 Hong, United for Action, Seligman CB6, Shannon
19 Ayala, United for Action, Charlie Olson[phonetic],
20 United for Action. See if any of those folk are
21 here. We understand the time is late and many of
22 those folks have moved on.

23 MS. SWANSON: Please raise your
24 right hands. Do you swear or affirm to tell the
25 truth, the whole true, and nothing but the truth,

today?

CHAIRPERSON GENNARO: Thank you very much we'll start. You said first we'll call the first panel and we'll proceed that way.

MS. KOZMA: Thank you. My name is LuAnne Kozma.

CHAIRPERSON GENNARO: Just speak right into the mic.

MS. KOZMA: Right into the mic, okay good. Thank you very much for having me my name is LuAnne Kozma, and I am with Don't Frack Michigan, which is www.dontfrackmichigan.org. I am from New Jersey originally and was very involved in saving the Delaware River years ago from the Tocks Island Dam, if anyone remembers that whole problem, and worked at the Delaware Water Gap Natural Recreation Area for the Park Service one year. But we are seeking in Michigan a statewide ban on horizontal hydro fracking. [applause] Thank you. We have our work cut out for us, and I urge New York City Council and all the anti-fracking activists here to use your enormous political clout not only to protect the watershed for New York City, but all of the state

1
2 because what you do here will be so courageous and
3 will inspire so many other states to do exactly
4 the same thing. We are all looking for your
5 leadership. If we can't do it here, we can't do
6 it anywhere. And we just need to defeat this
7 state by state. Thank you very much.

8 CHAIRPERSON GENNARO: Thank you,
9 [applause] LuAnne, I appreciate you being here and
10 staying this long. Okay Miss if you could.

11 MS. HONIG: Hi I was here before.
12 I was here on September 27

13 CHAIRPERSON GENNARO: Right. What
14 I need you to do is state your name for the
15 record.

16 MS. HONIG: My name is Evelyn Honig
17 [phonetic]. I'm an artist and activist and a part
18 of United for Action. When I last spoke in front
19 of you, you asked to stay afterwards because I was
20 also the last person, I have been researching as
21 hard as I can whether this is legal, what is
22 happening with the DRBC, I'm so tired sorry. The
23 DRBC, what they doing is illegal or not. I have
24 the statement in front of me but Maurice Hinchey
25 who seems to think that, and I think, that

1
2 President John Kennedy created this body of
3 people, of governors to protect clean water then
4 along came Dick Cheney, and I think what he did
5 was probably illegal, and so I have been her
6 collecting names of people who would be involved
7 in a class action lawsuit to find out whether what
8 Mr. Cheney did was right or wrong. I think that
9 this is so serious that it might need to go up to
10 the Supreme Court.

11 I have been involved in another
12 lawsuit and I told you that last time I won \$127
13 million dollars against a pharmaceutical company
14 in New York State against Governor Cuomo's father
15 and won both suits one little 5 foot 4 person. I
16 am afraid to state that America sometimes is only
17 America because we can and need to sometimes sue
18 the people who are suppose to protect us.

19 CHAIRPERSON GENNARO: Thank you,
20 Thank you for your statement. Now I recall our
21 conversation.

22 MS. HONIG: You were suppose to
23 speak to me afterwards, and now what I am doing is
24 actually see if all these organization come
25 together and I understand there are a bunch of

lawsuits in the pipe. Appleton said maybe-

CHAIRPERSON GENNARO: [interposing]

But we have to-

MS. HONIG: [interposing] Okay.

Okay. Right

CHAIRPERSON GENNARO: -move on to the next witness.

MS. HONIG: Right you remember me

CHAIRPERSON GENNARO: I remember you know at Manhattan Community College.

MS. HONIG: Exactly right.

MR. AYALA: My clock started. My name is Shannon Ayala and I am also from United for Action and I actually told someone Lou Wright, I hope he signed up before me so Lou Wright on the behalf of the New School can speak. I'll be brief anyway.

This morning I finally looked at a message that somebody sent to me last week, and there is reason that I signed up to speak today. My friend has been following the PlanNYC, and he explained to me in the message that recently PlanNYC put out a democratic system where people could vote on what New York City's priorities

1 should be and everyone should just go on the
2 website and see what the results are. The result
3 page showed that hydro fracking in the city's
4 watershed or in the state's watershed should be
5 the number one priority and not one and as soon as
6 the voting thing was over the page disappeared and
7 the is suppose to be up. So he told me that this
8 is actually a big deal, the people of New York
9 have spoken and like this should be in the New
10 York Times and stuff, so that's basically what I
11 wanted to say. Fortunately he was able to find
12 that very hidden pearl that has all those result
13 and sent them to me, I have them and I can submit
14 them to the Council and it seems that the reason
15 that may be PlanNYC or Bloomberg is not showing
16 those results is because they're in favor of this
17 pipeline, this Spectra pipeline, so it seems that
18 we need to show that the people of New York City
19 have spoken and that maybe we can't have this
20 pipeline we don't want fracking either, thank you.
21 Thanks

22
23 CHAIRPERSON GENNARO: Thank you,
24 thank you. And make that information available to
25 the analyst of the committee, you can make that

1
2 information available to Mr. Avery [phonetic], Mr.
3 Dan Avery and we would like to have that
4 information. You know, it has always been my
5 experience that people from PlanNYC and the Office
6 of Long Term Planning and Sustainability have been
7 pretty straight shooters I'd be surprised if that
8 happened certainly, let's take a look at that.

9 MR. FROGEL: Good afternoon my name
10 is Arnold Frogel. I'm a Manhattan resident and
11 here for NYH20 I would like to address one idea
12 that has been floating around. Natural gas is
13 bridge fuel that prepares us for alternative
14 energy, and that could once natural gas gets going
15 it is one of the fossil fuels that's subsidize
16 with our tax money what chance is there that
17 alternative fuels will ever come into existence,
18 not getting subsidy to the same degree as these
19 fossil fuels do, and once it is in, it is in until
20 the end. Just to say otherwise is just
21 euphemistic. I'll like to, I mean, we can't
22 pretend about that and I think that the Hazen and
23 Sawyer Report on the catastrophic consequences for
24 natural gas should be taken very seriously by
25 everybody in New York State and by our members of

our legislature in Albany. Actually the, time up.

CHAIRPERSON GENNARO: If flies when you are having fun. It does. It goes by quickly, but this is not your first visit to this committee we are grateful to have you here and if you have further information in the way of a statement that you would like to submit to the committee we'd be happy to have that. We have to move on to the next witness though.

MR. OLSON: Alright. Can you

CHAIRPERSON GENNARO: Yeah it is on.

MR. OLSON: Alright, good day and thank you for holding these needed hearings here.

CHAIRPERSON GENNARO: Sure. I'd like to ask you to state your name for the record.

MR. OLSON: Right. I am Charlie Olson from United for Action. We've met before at so many other places. As I was saying thanks for holding the hearing the needed hearing in New York City even though the DRBC didn't have them here or in some of the bigger cities. I hope that you give them hell for that when you send this information to them.

1
2 Considering the purpose of this
3 hearing is hydro fracking I'd like us to have
4 certain priorities as our guidelines, among these
5 are first not so harm which is the creed of the
6 medical profession, second I'd like to see science
7 to be a strong yard stick and not politics, and
8 third I'd like to defend the creed of the medical
9 profession, and the discipline of the science and
10 not to allow politics to make loopholes and other
11 such methods. To evade the clean water act and
12 other laws that harm the future of our people,
13 please think about not wasting out precious
14 resources on this energy method that would only be
15 a detour of our future energy needs. The
16 poisonous, toxic, non-renewable hydro fracking
17 will only last a few years or decades and what we
18 really need and what we should be focusing on is
19 other means for renewable and reliable energy
20 sources. Here is our chance to not let us down
21 for the future. Since I am running out of time I
22 will jump to the end.

23 These conditions cannot be achieved
24 I recommend and ask for a total ban on hydro
25 fracking anywhere in New York State and anywhere

else that we have our voices heard. Thank you again for your time.

CHAIRPERSON GENNARO: Thank you and it is good to see you again. [applause] The young man in the middle you have some information for Dan Avery about the website thing we want to take a look at that. Whatever. Dan if you could get a look at that it would be great. Thank you. We get the next, Jen Abrams, Robert Casaro, it looks like, Keith McBee, Amy Lazarus, it looks like, Lou Wright, and Ann Braneier B-R-A-N-E-I-E-R. Okay once again that was Lou Wright, Amy Lazarus, Keith McBee, Robert Casaro, Jim Abrams, and Bran Mayer, and I'll go on to the next panel, because it looks like we don't have a lot from that panel that is still here. Gusti Bogock, Zachary Taylor, Fatima Jones, Alison Dalton Smith, last name Manno M-A-N-N-O I can't make out the first name and Leo Miller. Okay and so we are going keep going here so here is more until we get two. Steven Bloomingfeld, Andrea Beeman, Elouise Rathbone, Carla Fisk, Andrew Lawrence [phonetic], Raymond Norwood, Jonathan Rameriez, Mr. Rameriez represents Jonathan Rameriez of planet Earth.

1
2 You'd gotta love that. Paul Peloguin, okay why
3 don't we take this panel. So, we called all this?
4 Right. Great.

5 MS. SWANSON: Please raise your
6 right hands. Do you swear or affirm to tell the
7 truth, the whole true, and nothing but the truth,
8 today?

9 CHAIRPERSON GENNARO: Thank you all
10 every much we will start from this way and we will
11 work that way. Just state your names for the
12 record and proceed with your statement. We should
13 be setting the clock.

14 MR. WRIGHT: My name is Lou Wright.
15 I am hear on behalf of a large number of students
16 in New York City including those at make up the a
17 Grouper New School at the New School and OxFam
18 Chapter at NYU. I had a lot to say in the papers
19 that I handed the committee, and I have a very
20 simple message that we would like relayed to the
21 DRBC in your letter, and to the Governor, and to
22 his transition team, which is that demand for gas
23 cannot be used as an excuse to say that New York
24 City has a privileged point of view in this debate
25 this is not about the city verse upstate it is not

1
2 about any of that. I am here today to say on
3 behalf of the young people of New York the further
4 home owners, rate payers, renters, we don't need
5 that gas, we don't want, we don't want the
6 drilling, but we don't even want the gas.

7 We want new energy economies. We
8 want new modes of transportation. We want new
9 ways to heat our homes; we want new was to cook
10 our food, and new ways to heat our water. It is
11 not even a matter of cost or contamination. It is
12 a matter of, we don't want to trade one fossil
13 fuel for another. We are done arguing about it.
14 Thank you.

15 CHAIRPERSON GENNARO: Thank you
16 [applause] Thank you I appreciate that. I'm going
17 to be, kind of like, relaxing the rules a little
18 bit, I'm not afraid we don't have a big crowd now
19 so I going to let my guard down a little bit. I'd
20 think I'd be okay. You have been to the committee
21 before, I know. No.

22 MS. MANNO: No never been here
23 before.

24 CHAIRPERSON GENNARO: You look
25 familiar. Okay there you go.

1
2 MS. MANNO: My name is Angela
3 Manno. I am just representing myself. It has
4 been an amazing process here today. I have
5 learned a lot and I am really proud to be
6 following this gentleman.

7 One of the things that had not
8 occurred to me before is the use of our water. The
9 water that we drink, the water that flows through
10 the rivers, the water that feeds numerous beings,
11 that is used for agriculture, that should be used
12 for our recreation, that it would be toxified and
13 jammed into the bedrock to produce something that
14 we don't need. And to reiterate what you said we
15 want new forms.

16 I am going to jump around a little
17 bit because most people have said what I wanted to
18 say. A stop-gap measure that can be use that
19 hasn't been mentioned here is the endangered
20 species and protecting them. There happen to be
21 two in the upper Delaware. One is a it's called a
22 it s little fresh water mussel and the bald eagle
23 is up there. So, I wonder if anyone has checked
24 with the Center for Biological Diversity to use
25 that angel because animals right now have better

rights than human beings do. So, we ought to, you know, team up with team

Secondly there was something mentioned that I just want to expand on, it has been mentioned by Appleton at another panel discussion that Shell Gas is actually the mortal enemy of green renewables because of the subsidies that would be dedicated to fracking. And lastly, nature abhors is a vacuum if we don't put forth a comprehensive and powerful vision alternative vision for our state that vacuum is going to be filled by the agenda of the gas companies. Thank you.

CHAIRPERSON GENNARO: Thank you. Thank you Ms. Manno, a pleasure having you. Yes sir.

MR. BLOOMINGFIELD: Hi my name is Steven Bloomingfeld. I am just representing myself, but I think I come at this from a unique perspective because I published articles in the New York City watershed on the behalf of the United Nations and I focused on hydraulic fracturing on the US Department of State and I am also working on these issues through my coursework

1
2 at Yale. So I hit these issues professionally,
3 academically, and now personally as a New Yorker
4 as they are all converging in one place.

5 I have submitted my written
6 testimony, which I hope you take a look at when
7 you have a chance. I have outline three main
8 points. The first is a regulatory point
9 essentially the gaps in the federal regulation of
10 the hydraulic fracturing process plays a
11 tremendous burdened on state and local officials
12 who are not yet taken the steps necessary to
13 adequately protect the public from harm. The
14 second point focuses on the watershed. I am going
15 to elaborate on this because I don't think that
16 this has been hit on much if at all in today's
17 testimony. It is basically the current management
18 scheme for the New York City watershed that leaves
19 this vital resource dangerously vulnerable to
20 unanticipated economic competitors such as natural
21 gas. I'll come back to that. The third point is
22 that popularized claims about the historical
23 safety and climate benefits of shell gas are just
24 categorically false. I mean, they say that it is
25 a decades old process but that is like saying and

an experimental surgery is fine because we have been doing surgery for centuries.

Getting back to the point about the watershed. The New York City watershed is a shining example of public private partnerships using economic incentives to benefit both upstream and downstream consumers. What this did not take into account is the possible of a new player coming into the game, this new player is natural gas. When farmers can get a check from the gas company that is more than, you know, what the city is giving out for the water that there is obviously a clear conflict there that wasn't anticipated when the scheme was created. Now I am not saying that we do way with the scheme it is a brilliant scheme but what we need to is to make sure while we respecting the rights of upstate landowners to manage their property as they choose, regulations must be in place to insure that any actions taken on private land do not cause harm beyond the property boundary including potential harm to the watershed that is something that definitely needs to be looked into with regards to how this watershed is managed to make

1
2 sure that gas or the next thing that we don't know
3 about could potentially cause any harm to our
4 water.

5 CHAIRPERSON GENNARO: Thank you.
6 Thank you very much for that perspective. I
7 appreciate you very much for being here.

8 MR. LAWRENCE: Hi my name Andrew
9 Lawrence. I am representing myself. I live in
10 Manhattan. I urge you and the Council to be
11 empiricists. I'd to connect several observations
12 here in context to what Al Appleton had to say,
13 which was very impressive. My mom's dad was
14 brought over from Ireland to Scranton,
15 Pennsylvania in the 1780s as an indentured servant
16 in Scranton. For seven years he worked in
17 Scranton. For my New York City creds my dad
18 traces back to the Flushing Remonstrance. I
19 remember my mom after her escape to Little Neck
20 talking about the smoking slab heap that were
21 smoldering even in the 1960. Empiricists, google
22 Scranton, Pennsylvania, the square miles of wasted
23 areas down there. In my I am attuned of the
24 recent financial meltdown. Unless there is a
25 controlling punishing regulatory authority Wall

1 Street will happen again and, empiricists,
2 Scranton will happen again. But, the new Scranton
3 is Marcellus. The Scranton mess is in the
4 drillers DNA, you know that they will swear to
5 comply, they can't comply and you know it. The
6 only solution is to stop hydro fracking in New
7 York State. You talked about being brainwashed
8 off a cliff. The USGS, Mr. Williams, it is a done
9 deal as. I check out his pdf on page 16 please
10 check the first sentence, where he says it's going
11 to happen. The other thing I wanted to mention
12 was you said to get involved we did show up two
13 different building 45 minutes late, we are use to
14 that, but you said it is not way I believe or you
15 believe, yes it is what we believe. I am going to
16 finish with a quick poem with by my wife of 42
17 years: O Daddy don't you take me back to
18 Allegheny County Down by the bright waters where
19 paradise lay. I am sorry my son, but you're too
20 late in askin' to Peabody's Gas lines have taken
21 it away.
22

23 CHAIRPERSON GENNARO: Thank you
24 [applause] Thank you. I guess what I meant to say
25 is that it is not that simple as what you believe

or what I believe and there are-

MR. LAWRENCE: [interposing] There is good leadership out there

CHAIRPERSON GENNARO: Yes that is true, but there are and perhaps government policies shouldn't be solely about what I believe because what I believe might not be good.

MR. LAWRENCE: But sometime we hook onto folks like Hinchey and Appleton, folk like that you could immediately.

CHAIRPERSON GENNARO: There are lots of people in government who believe you know strongly you know the right for. Or believes that frackers should go and so what they do and would do anything in their power to stop any kind of regulation, whatsoever. Those types of people believe that they are not kidding, they are, like, elected to office and so I just trying to get people to get engaged in every level, you know, possible, and not just believing in your heart and sole proclaiming what you thing should happen, but taking very concrete steps political steps and other procedural step to kind of get your point across.

MR. LAWRENCE: Criticism has its place. I understand

CHAIRPERSON GENNARO: And so I think, you know, we are sitting in the same pew in the same church, you know, which is good, and not only were you sitting in the same pew, but you sat there for hours to get to have a chance to say what you had to say.

So, I am glad you told me. You got to tell you State Senator. You got to tell you Assemblyperson. You got to tell your Governor. You got to tell your President and on it goes.

And, you know, sometimes, you know the people get government policies that deserver and they want and sometimes, you know, they don't, but if that happens here it is not going to be for the lack of us speaking up.

MR. LAWRENCE: Do I have your permission, my Council Member is not here we are in the same building can I approach him in the elevator. He is committed to it I think Garodnick.

CHAIRPERSON GENNARO: Oh Dan?

MR. LAWRENCE: Yeah

CHAIRPERSON GENNARO: Oh Dan is terrific he is my buddy. He is a terrific Council Member and I have high hopes for the young man. I want to thank this panel especially for being here that you very much.

Okay this is the last group of folks. This person gets the record for having the neatest slip Bonnie Lowenstein[phonetic], Marilyn Stern, Ann Bassen, Ariel Agi who is representing humans, Hugh Gran, Lois Ross, Terry Slater, Dan Matis, Alice Joyce[phonetic], who street address is I am not going to say what street or what borough but 333, which is my street address growing up, Alice Joyce, Jason Demsey, and Ruth I can't make out the last name, yeah, Ruth can't make it out. Anyone named Ruth who signed up to testify come forward.

MS. SWANSTON: Would you please raise your right hands. Do you swear and affirm to tell the truth the whole truth and nothing but the truth, today?

CHAIRPERSON GENNARO: Thank you all very much, thank you all for being here. What we will do is we'll start at this end of the table

and proceed that way.

MR. VINCI: Hi name is Jason Vinci [phonetic], and I represent myself. No drilling, no hydraulic fracturing, here in New York State, New York City, this country, anywhere in the planet. I think it is anyone centered in the space of reason and compassion for life will look at the much available information and simply say, no. It's a no brainer. But as we all know and as we heard over and over, this is about big profit, really big profit and it is not going away, and is going to get worse. And it is only going to get worse it is not just the hydraulic fracturing has many difference issues, which I am not going to get into.

The water shortage is creating deserts in Africa. And the people are buying up the rights for the Great Lakes because they foresee the water shortage happening. We are already accustomed to buying bottled water now we are going to have to buy bottled water.

We are - - more and more and we are looking we are dealing with the frailties of the human condition because the people who are making

1
2 the very big profit are effected by disease of
3 greed and also as we become more compressed and
4 squozen and we are fighting for life ourselves
5 someone comes and offers us money. We are going
6 to be more easily bribed by greed ourselves. And
7 it's, we need to understand this when someone is
8 off centered when someone is infected by, say
9 greed, they are not dealing with reason, these
10 people are not dealing with reason. So they are
11 not going to give reasonable answers. They are
12 going to keep pushing. And, I'll skip that.

13 What I think we need to do is when
14 we are sharing this information, I am saying this
15 more for us actually in a way, is when we share
16 this information, we are a social movement what
17 tends to happen because we see this absurdity of
18 behavior by , we ourselves become absurd, and we
19 become off center. It is really important, I
20 believe, in social movement that we say centered
21 in reason and compassion. So when we deal with
22 other people and we don't believe that we do they
23 are not seeing in and become infected by greed and
24 if we come anger and off centered then we will
25 make them more angry and off centered and we have

1
2 to be that center of compassion and of
3 understanding as well as steadfast to keep our
4 point across and still listen point because that
5 is how the message gets conveyed. Involvement at
6 dinner table conversations with our brothers and
7 cousins and we are yelling at each other, and
8 politics has torn families apart.

9 We need to continue to work forward
10 to go to Albany to speak with compassion speak
11 with reason from our hearts and be human.

12 [applause]

13 CHAIRPERSON GENNARO: Well thank
14 you, that was most illuminating and I am going to
15 come back to that I just want to hear the panel,
16 stay.

17 MS. JOYCE: My name is Alice Joyce
18 and I am here with United for Action, and I am
19 going to depart from my presentation because I
20 want to address you. Council Member Gennaro, you
21 spoke. I think that it is fitting that I say this
22 because I am one of the last speakers and I want
23 to go back to what the first speaker said, and
24 that: we need a leader. We have. What you have
25 had here today is you had many, many coalitions of

1
2 environmental groups and we are all working
3 really, really, really hard, and are working with
4 each other and we are forming on big coalition
5 across the state and we are trying to form
6 coalitions across the states about this issue, and
7 we need a leader. We need a political leader, and
8 you have been a leader, you have filled this area,
9 this building and you have filled so many
10 buildings, so many hearings with people with full
11 capacity. You are a leader, no matter what you
12 say. [applause]

13 CHAIRPERSON GENNARO: Thank you.

14 MS. JOYCE: And its not easy being
15 a leader.

16 CHAIRPERSON GENNARO: I though I
17 was in trouble for a minute, when she was going to
18 talk to me, I though I was in trouble, and maybe I
19 still am.

20 MS. JOYCE: Well it isn't easy
21 being a leader. It certainly is a lot of
22 heartache being a leader, but we need a leader,
23 and you have shown yourself to be a leader, your
24 the natural leader. Cuomo is not the leader he is
25 not taking the lead. Somebody needs to form a

1 coalition of politicians, like-minded politicians
2 and then we will follow you, and we will work with
3 the people, you know, the public. We are the
4 grass roots. We are working with the public we
5 are trying waking them up. I will go to my speech
6 here, and that is just a few days ago on February
7 28th, 2011. Guy, Arkansas, which sit on the Madrid
8 fault line.
9

10 CHAIRPERSON GENNARO: I actually
11 took a little of your time, so keep going

12 MS. JOYCE: Okay. Guy, Arkansas,
13 which sits on the Madrid fault line, experienced a
14 4.7 magnitude earthquake which was followed by two
15 smaller ones, before these incidents Guy has
16 experience seismic events. It is believed that
17 these earthquakes are connected to the fracking
18 done in the area. We sit on the Ramapo Fault
19 line, which runs through New York State,
20 Pennsylvania, and New Jersey. It was active 200
21 million years ago a 2008 study predicts and
22 earthquake of a 6.7 magnitude, but is it unknown
23 when it will occur and we have all this fracking
24 going on all this earth all this rock all of this
25 being, you know, being disrupted going on. I

1
2 don't think. I think this is beyond water and
3 everything, I think that this is about just having
4 a place to live.

5 CHAIRPERSON GENNARO: Thank you.
6 Thank you, we have to move on to the next witness.
7 [applause] You are very gracious to me I
8 appreciate that.

9 MS. JOYCE: I am serious.

10 CHAIRPERSON GENNARO: Thank you.
11 Thank you

12 MR. DERESKI: Hi my name is Robert
13 Dereski. I am a democratic party committee mem,
14 and I'm speaking for Ann Bassen who works for
15 Frack Action and NYH20. She asked me to come up.
16 It is funny that I am speaking after this lady,
17 because she also mentioned that you are a leader,
18 and she said that when you say it's insane what
19 they are planning and, you know, feels looking at
20 you is seeing herself gnashing her teeth and
21 pulling her hair she really feel a kindred spirit
22 who recognizes the horror of this process. So,
23 she does recognized you as the Chair of the
24 Committee for Environmental Protection and she
25 recognizes that you have the power to introduce a

1 resolution to call for a ban in New York State.
2
3 And I just asked her, well isn't he just in the
4 City Council, and she said, yes but the City
5 Council votes on Mugabe and vote on the Iraq and
6 passes all these resolutions so here is an
7 opportunity at the end of all this moving
8 testimony that I know reaches you very deeply in
9 you heart to take action, which we have for a few
10 years now, you know, step forward and introduce a
11 resolution and call for a ban in New York State
12 across the state that is currently undergoing
13 regulatory review it is not torrid or outside of
14 your jurisdiction to do so. Thank you very much.

15 CHAIRPERSON GENNARO: Thank you.

16 [applause] I appreciate that thank you. You madam
17 will have the last word.

18 MS. LOWENSTEIN: I though I was
19 going to be first in this pane, little did I know.
20 Hi I am Bonnie Lowenstein long time Brooklyn
21 Resident and I am absolutely opposed to hydraulic
22 fracking. It is up to the people who live in this
23 watershed to demand that our state and federal
24 governments prevent this drilling technology form
25 devastating out region for it has large areas of

34 state. This industry motto is: profit, foreign sales, and the public be damned. So, I applaud the Environmental Protection Committees efforts and your efforts, sir to keep this evil scenario from playing out in our region.

As a key New York Times article revealed on Sunday, since 2005 when Mr. Cheney insured that Halliburton hydro fracking technology gained exemption from all of our landmark environmental laws, the gas wells have metastasized into the hundreds of thousands. Each one produces huge amounts of waste water most of which remains underground where it flows far and unpredictably horizontally and vertically it is laden with chemicals that cause illness and dilutions measured in part per trillion the waste water that returns to the surfaces, dumped in rivers, and is carcinogenic compounds otherwise deadly chemical radium and uranium are filtered little or not at all by sewage plants and drinking water plant downstream. Ground level fracking waste include natural gas itself or methane a potent greenhouse gas, all told fracking is not much more climate friendly than the worst climate

villain, coal. It used and permanently poisons colossal amounts of fresh water in an era where potable water is evermore scarce. Fracking infrastructure and transportation pollute and destroy land and health in many ways. Only in the frackers new reality is natural gas a bridge fuel for the century. The federal and state government handed the industry the freedom to rape the public interest. The would-be regulatory and their pals in the industry insult this nations real economic, environmental, and public health interests. I have to stop.

[applause]

CHAIRPERSON GENNARO: Thank you, before we close I just have some comments for this panel, which I think was really, terrific. Starting with Mr. Vinci, is it,

MR. VINCI: Vinci.

CHAIRPERSON GENNARO: About speaking with compassion and that kind of struck me and think it is important for the movement, like, notwithstanding all the frustrations to, you know, try to adhere to what you said to the extend that people go in to streets and get, kind of non-

1 linear, and it gives, you know, nay sayers the
2 ability to make like disparaging reviews regarding
3 the movement. I don't think that that's helpful
4 so that is not common in this movement to the
5 extend that people go like really beyond the pail
6 the they'll be stuff in all these blogs about how
7 this anti-fracking person did this and this anti-
8 fracking person said that, and this anti-fracking
9 person told this someone that they, you know,
10 ought to die or something, you know we just don't
11 need that that is just like not what we are about,
12 and we should try to maintain a tone that gets us
13 respect even if, even if other people are
14 disrespecting us, so I thank you for that.

15
16 And with regard to the state wide
17 ban, we've done several resolution in the Council.
18 It's my job to go to my committee, the body of the
19 City Council, the Speaker of the Council, to
20 figure out, like, what is best for me to say, and
21 what is best for Speaker Quinn herself has, you
22 know, made statements, which are really terrific
23 that goes beyond where the Council as a body is,
24 and I am grateful that she's been such a great
25 ally on this and so of all the ideas for

1 resolution, you know, that's. I am not saying
2 that that is off the table. I have to figure out,
3 you know just what we call for and what makes
4 sense and part of this hearing is to figure out
5 what our next steps are, and I certainly don't
6 want to dismiss that and I do need to get, state
7 government to get the big picture on why this is
8 problematic and I best accomplish that by figuring
9 out how I make them justify on a scientific basis
10 what it is that they want to so, which I know that
11 they can justify, is that a better use of my time
12 than just calling for something. So, like, these
13 are the things, like, you know, that we have to
14 balance, and but we are going to figure it out. I
15 have already, kind of like, you know, animated
16 myself with the Cuomo Administration today. Is
17 that a good move is that not a good move, well
18 we'll see, you know. I'm, you know, trying my
19 best here, but I would.

21 One thing that I would like to
22 point out to folks in this notion that I see time
23 and again and when it shows up I'll try to correct
24 it, is that people are, you know, looking to the
25 gas industry. So the gas industry to like protect

1
2 our water, and like not do things that are going
3 to hurt us, and since when is like that like the
4 gas industry's job. That is not the gas
5 industry's job not to hurt us, like we have a
6 government and the government sets the rules.
7 Your government that you elected that you pay for
8 they are the ones on the field, right. They are
9 the ones on the field, you know you watch a
10 football game you got the referee in like the
11 striped uniform and like the referee calls the
12 fouls you get 15 yards you get 5 yards, you get
13 delay of game. It is the people that right the
14 rulebook they are the people that, you know, that
15 you should hold to account. I mean, I don't want
16 a gas company looking after my well being, but I
17 want my government holding my gas company to, you
18 know, that account, but people seem to believe
19 that the gas companies if we talk them enough that
20 they are going to do things differently it is not
21 going to happen and we are in this situation now.
22 I am going to close I don't want to keep people
23 any longer that I have to.

24 Any time you have something that is
25 not federally regulated at all it give this

1
2 corporation or any corporation the ability to go
3 state by state and whipsaw one state verses
4 another. And say look, you know, we got this
5 technology that is a lot a of jobs and a lot of
6 money on the table and if you don't play ball
7 then, like, the guys across the river if going to
8 get all the jobs and all the revenue and all that.
9 If you don't let us play ball then it whipsaw one
10 state for another and that's the reason why we
11 created national environmental laws. National
12 standards that state even if they wanted to could
13 not go below those standard, and when you don't
14 have that you get into the situation that the
15 state is getting into a race about who is going to
16 be more permissive of what happens. And good
17 things just don't come from that.

18 So if you wanted to be the fracker
19 that is the good guy fracker had all the best
20 control technologies all the best way of dealing
21 with the produced waters, the best one with this
22 and the best one where they got their water from,
23 and you are going to be the one that is like the
24 cleanest environmentally friendly fracker. Like,
25 you'd be out of business because everyone is doing

1
2 it on the cheap because the people making the
3 rules on the field to sort of let the lowest
4 common denominator of rip and run, and so if you
5 wanted to be a good guy fracker you really can't
6 be and you know, it is almost like the problem is
7 not so much the frackers, who it is there job to
8 get up in the morning and figure out how they will
9 turn holes in the ground to dollars that is their
10 job, that is what they do, and so you know. But
11 they should do that, you know, by the same rules
12 that every other energy technology, like, has to
13 live by, they don't, like, they don't have that
14 now.

15 And like the Gulf of Mexico they
16 made a big mess they are writing checks \$20
17 billion and you know there are consequences to
18 what they do because of federal regulation, but
19 the frackers don't have that, so we really have to
20 focus less on the gas companies and more on the
21 people in your government that you lack the make
22 the rules for those people so that is what I am
23 trying to do and

24 MALE VOICE: [interposing] Council
25 Member does that mean you are going to think about

introducing resolution, just to be clear.

CHAIRPERSON GENNARO: [interposing]
It is my job. The way hearings work is that I ask
the questions, you know what I mean,

MALE VOICE: Just so I understand
your answer.

CHAIRPERSON GENNARO: Yeah I mean
like, but I made the statement that I made and we
are going to, I am going to chart a course of
action with my colleague with my staff with the
Speaker, that, you know, gets us to the best
possible result, and like, as you saw today, I am
like going the jugular. I called the Governor
out, you know what I mean, it's like, that is like
not something someone in this state should so
lightly, but I am getting a little frustrated.

No, no, no I am not going to do it.
If you want to see me afterward it's fine, it is
too late, we have to, sort of, hold on a little
bit. So, if anyone wants to talk to me afterward,
I'm happy to do that.

Let me end where I began. I
really, really am not doing it. I really thank
folks for being here. Pardon, Oh, okay, you

submitted your name to speak, I was not. Staff gave me every single slip and I didn't see your name anywhere, you are welcome to come forward and give a 2 minute statement I'd be happy to have that, I am sorry that something happened when we didn't see your thing and you waited all this time and certainly I am going to give you your two minutes just like every one else I did not deliberately mislay any slips to avoid hearing from somebody. And so with so many witnesses, I guess that just happened. So I am sorry about that.

MR. ROSEN: It's Bruce Rosen [phonetic]. Yesterday in Washington's publication, "The Hill" they had published on his website, and extensive letter by Congressman Markey of Massachusetts and some of the other high ranking House members. It was a letter to the Secretary of the Interior and it requested a thorough health analysis of the impacts of fracking on publicly owned lands. I use it as a segway because the process of fracking requires a series of salt compounds sodiums and potassiums which react in an ion exchange to break through the clay

level, they produce a residue. The residue seems cannot be thoroughly processed out.

This is important to me as a health thing. They, National Kidney Foundation says that they are 20 or 30 million people who don't know that they have kidney disease, but I am one of those fortunate because I know I have a chronic kidney disease. For someone with chronic kidney disease you have to measure sodium, potassium. Sodium because it holds in water, and could put one's lungs at risk and in high concentration can cause kidney failure, and potassium which regulates one's heart which in high concentrations can produce an arrhythmia, i.e. a heart attack. I don't know if there has been enough study of things like that, obviously it is important to other people with chronic disease, but I am putting it out on the table. Thank you.

CHAIRPERSON GENNARO: And this is by Congressmen Markey of Massachusetts?

MR. ROSEN: Congressmen Markey of Massachusetts and it's "The Hill" and it is on the website for the 28th.

CHAIRPERSON GENNARO: Okay thank

you for that good contribution for this hearing.

I direct staff to make a note of that because we

want all information at our disposal. We don't

know everything, which is why we have these

hearings, and I appreciate everyone that came

forward today, and I look forward to the next time

we all can get together and hopefully when that

day comes we will be able to say that we have made

some real progress here. Thank you all very much

and have a very good night.

C E R T I F I C A T E

I, Amber Gibson, 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 

Date March 15, 2011