

CITY COUNCIL
CITY OF NEW YORK

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TRANSCRIPT OF THE MINUTES

of the

COMMITTEE ON ENVIRONMENTAL PROTECTION

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HELD AT: Council Chambers
City Hall

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

COUNCIL MEMBERS:

Bill de Blasio
G. Oliver Koppell
Domenic M. Recchia, Jr.
Peter F. Vallone, Jr.
Melissa Mark-Viverito
Thomas White, Jr.
Mathieu Eugene
Anthony Como

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

Steven Lawitts
Acting Commissioner
New York City Department of Environmental Protection

David Warne
Assistant Commissioner of Water Supply

Langhorne Smith
New York State Museum

Albert Appleton

Eric Goldstein
Natural Resources Defense Council

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

Barbara Arrindell
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Grace Van Holsteyn
Catskill Citizens for Safe Energy

Buck Moorhead

Arnold Frogel
Sierra Club-Atlantic Chapter

CHAIRPERSON GENNARO: Thank you, thank you all for coming. I'm New York City Councilman Jim Gennaro, Chairman of the Committee--Jim with the Committee on Environmental Protection and welcome to our hearing part two, second hearing we've had on the issue of drilling in the Marcellus Shale. We'll be joined by the members of the committee during our hearing today. And as it says in my statement, I've spent almost two decades of my professional career working to protect the New York City watershed and I certainly plan to continue my efforts. I'm joined by many people who are of DEP and others who are similarly disposed. The New York City Watershed, as everyone knows, provides potable water for more than 8 million residents of New York City and millions of others who work here as well and that represents more than half the people in the state. The city's watershed lands and infrastructure were developed and nurtured by New York City and supported by land acquisition and other measures that I and other members of the Council fought for and we worked with DEP to get that done. The total--the combined total of city-owned land on

the city purchase easements in the Catskill Delaware Watershed is, I'm told, 118,605 acres as of the end of 2007, that comes to about 11 1/2 percent of the land in the watershed and it is the single most important regional natural resource and New York City committed 250 million for land acquisition through the 1997 Memorandum of Agreement and an additional 241 million through the 2007 Filtration Avoidance Determination for land purchases. So this is to say that we've done a lot. In total, New York City has spent more than \$2 billion to protect its watershed and we certainly don't want to waste the \$2 billion that is invested, nor be required to filter our water after it may become polluted by others for their profit at a huge cost to city residents. I'll just add anecdotally that the cost of a filtration system for the Catskill Delaware system was estimated in the mid-90s to be in the range of, you know, 6 to \$10 billion--that was back then. It's not the mid-90s anymore, it's 2008 and also that filtration plan that was envisioned in the mid-1990s was really one to deal with bacteriological contaminants and not necessarily

to deal with the kinds of contaminants that may be introduced by, you know, hydrofracking, so just do a little math here, so in the mid-1990s it was estimated be 6 to \$10 billion and even if it was built back then, it wouldn't have cost 6 to \$10 billion, it would have cost whatever, something a lot more than that. Now it's so many years later and perhaps it would have to have, you know, new technology that wasn't envisioned back then, you know, different capabilities and so what would that cost be? Twenty million? Twenty-five billion? We'd have to hire a consultant just to figure that out, but certainly a lot of money.

And so this is what we don't want to risk and, you know, today we'll have the opportunity to hear from DEP. DEP was not able to come to our first hearing back in September, I believe it was.

We're joined by Council Member Como, it's a pleasure to have you here, Councilman Como. And so we will give DEP an opportunity to testify and give us an update on what they have been doing on this issue. I know there have been conversations and consultations and there was a letter that went out from DEP to Pete Grannis in July right after

1
2 this legislation was passed and then subsequent
3 testimony in--on October 15th by Paul Rush, a DEP
4 Deputy Commissioner. So these are the two public
5 statements that I know of that DEP has sort of put
6 forward and I'll have my own, you know, critique
7 of those once we get into the questioning of DEP,
8 and we do have questions for them. And so, Acting
9 Commissioner Lawitts, a pleasure to have you and
10 your staff. We'd like to take this opportunity to
11 welcome you, thank you for being here. We'll
12 follow a protocol that we always do in the
13 committee to swear in the witnesses, so anyone who
14 is going to be providing testimony from DEP should
15 take this opportunity to be duly sworn. After
16 that you could state your name for the record and
17 proceed with your good testimony, but, once again,
18 welcome.

19 STEVEN LAWITTS: Thank you, Mr.
20 Chair.

21 CHAIRPERSON GENNARO: Sure.

22 COMMITTEE CLERK: Please raise your
23 right hand. You swear or affirm to tell the
24 truth, the whole truth, and nothing but the truth
25 today?

STEVEN LAWITTS: I do.

CHAIRPERSON GENNARO: Thank you.

Okay, Steve, the floor is yours.

STEVEN LAWITTS: Thank you, Mr. Chair, and good morning, Chairman Gennaro, and good morning, Council Member Como, and, in advance, to other members of the committee as they arrive. I want to thank you for the opportunity you gave me to present testimony this morning. I am joined at the table by David Warne, Assistant Commissioner of Water Supply; Anne Canty, Deputy Commissioner of Communications and Intergovernmental Affairs, and Mark Lanigan [phonetic], Assistant Commissioner of Intergovernmental Affairs. We're all here today because we believe there's nothing more important than protecting New York City's drinking water, an [clears throat] excuse me--irreplaceable resource for half the citizens of New York State, as you pointed out, Mr. Chair. The Bloomberg Administration has consistently stated that protection of the watershed and water supply infrastructure is our highest priority. Former Commissioner Emily Lloyd's July 18th letter to the

New York State Department of Environmental Conservation Commissioner Pete Grannis made the following preliminary recommendations: a drilling exclusion zone around infrastructure and reservoirs; a formal structure for DEP involvement in well permit reviews and inspections in the watershed; and a technical working group to develop regional conditions for the New York City watershed. In turn, Commissioner Grannis has made clear on numerous occasions that he understands the importance of protecting New York City's water supply. DEP looks forward to working closely with Commissioner Grannis and his staff to ensure that the Supplemental Generic Environmental Impact Statement, or SGEIS, now in the scoping phase, fully discloses any potential environmental risk to our water supply system posed by natural gas exploration and extraction in the Catskill and Delaware Watersheds. We have reviewed the draft scope for the SGEIS and generated comments, which we have submitted to the New York State Department of Environmental Conservation this morning. We are making our comments available to the Council as an attachment to my testimony. I think you'll

find that they are quite detailed and very protective of our water supply system, including potential impacts of natural gas drilling on both water quality and on the city's water supply infrastructure. As you know, DEP operates and maintains tunnels, aqueducts, and shafts within and outside the watershed. These tunnels often operate under high pressure which reduces the likelihood of contamination from operations such as natural gas drilling. However, inadvertent penetration or contamination resulting from drilling operations could significantly affect the city's ability to provide high quality drinking water. As set forth in our comments, our primary water quality concern stems from the use of drilling chemicals. The Scope indicates that approximately 99% of the estimated 2 million gallons needed to develop one well is pure water. However, that equates to approximately 20,000 gallons of unknown chemicals per well site. One of the common chemicals associated with contamination from natural gas drilling is benzene, for which the ambient groundwater standard is one part per billion. We are

therefore calling for full identification of the chemicals used in drilling and an assessment of their potential impacts. While we are unwavering in our mission to protect drinking water, we are sympathetic both to the need to continue the search for cleaner fuels as stated in PlaNYC 2030, the Bloomberg Administration's plan for a sustainable New York City, and to the very real needs for economic development upstate. Our need to be cautious while not being unnecessarily restrictive has led us to seek detailed, specific information about the application of current natural gas drilling technology in the watershed. To that end, we have engaged a consultant with specific expertise in the field of natural gas drilling to assist us in evaluating the potential impacts that natural gas well development may have on the city's Catskill and Delaware Watersheds. The consultant is a joint venture of Hazen and Sawyer and Leggette, Brashears and Graham. The contract is expected to be for one year with an option--our option to renew. The consultant will perform a Rapid Impact Assessment to identify issues DEP may need to act on quickly and to guide

further work. The Rapid Impact Assessment will be based on readily available information and will inventory potential impacts associated with natural gas extraction--natural gas extraction and production. The assessment will include case studies from other states, identify circumstances common to contamination issues in other locales and evaluate the potential chemicals involved in the drilling process. The Final Impact Assessment will include a more thorough analysis of the issues, provide a conceptual model of the hydrogeologic interaction between the Marcellus Shale and water resources in the watershed, evaluate regulatory protections and identify high risk areas for the watershed. As most of us are aware, the watershed that provides 90% of New York City's drinking water supply, located in the Catskill Mountains, sits atop a portion of a geological formation known as the Marcellus Shale, which lies several thousand feet below portions of Ohio, Pennsylvania, Virginia, West Virginia, and New York. Because of its depth and because of the expected yields from Marcellus wells, the natural gas industry did not regard the Marcellus deposits

as a promising area for exploration until recently. That situation appears to have shifted over the last five years, probably because of the change in energy prices and new developments in hydraulic fracturing and horizontal drilling, technologies that involve using jets of sand laden high-pressure water to fracture the rock containing natural gas deposits. Other factors that encourage exploration include proximity to pipelines, including the Millennium Pipeline under construction and the high quality of the extracted gas, which allows it to be piped without refinement. There are no applications for well drilling within the watershed right now, but there are 835 active applications statewide to date in 2008, while there are only 652 in 2007. Five of the applications for drilling in the Marcellus Shale are in the town of Hancock, a town outside of New York City Watershed, but through which a portion of this city's West Delaware Tunnel passes. DEC has shared the locations of the proposed wells with us and the nearest one is roughly seven miles away from the tunnel--a distance that we currently believe does not pose a

threat to our water supply. However, we intend to closely collaborate with DEC on those applications and ensure, with support of our consulting engineer, that any risks that these proposed wells may pose are identified before the permitting process goes forward. Natural gas extraction via hydraulic fracturing involves a complicated set of activities that may pose great risk to the ecology of the surrounding area and to the water supply system operated by DEP, which provides high quality drinking water to approximately half of New York State's population, including 8 million residents of New York City. For example, to create the wellhead and access roads, the surface of the land has to be disturbed, which creates a risk of soil runoff into the streams that feed our reservoirs. The vehicles and equipment used to extract or transport natural gas have to be fueled, possibly through on-site storage, which also creates a risk of leaks or spills. The fracturing fluid itself is composed of hazardous compounds that, if released into the environment, could pose a very grave threat to water supply and water quality. The waste fluid pumped out of the

wells after fracturing is often stored on-site in open waste pits that are also subject to leaks and spills. To some extent, the threats from these types of activities are known and can be controlled. DEP and or DEC actively regulate such activities as road building, soil disturbance, waste handling, and the use and storage of fuel and other potentially hazardous materials in the watershed to ensure that they will not impair the quality of the water obtained from the Catskill and Delaware Watersheds. As many of you know, the water from these watersheds, both located in the Catskill Mountains, is of quality so high that DEP has been granted a 10-year Filtration Avoidance Determination from the United States Environmental Protection Agency. However, if the economic incentive to extract natural gas from the Catskill and Delaware Watersheds is very great, the scale of road building, fuel storage, and waste handling could dramatically increase to the point that the long-term sustainability of a high-quality water supply to the city of New York from the Catskills may be jeopardized. These impacts must be analyzed in the SGEIS. In granting New York City

an unprecedented 10-year Filtration Avoidance Determination for the Catskill and Delaware Watersheds, the US Environmental Protection Agency recognized the robustness of our Watershed Protection Program, the cornerstone of which is land acquisition. Aside from the environmental impacts from natural gas drilling, newly available mineral resources could make it more difficult for us to acquire watershed land. Landowners may be less likely to sell if they can sell natural gas leases with the potential for future royalties; potential for natural gas could drive up appraisals and the cost of obtaining land from owners who are willing to sell to us; and New York City may want to avoid buying land or conservation easements on properties that have a natural gas lease, further limiting the real estate market. For these reasons, the draft SGEIS should include evaluation of the potential for natural gas drilling to disrupt the programs, controls, protections, and institutional relationships that are required by the Filtration Avoidance Determination and embodied in the 1997 Watershed Memorandum of Agreement, to which the State

Department of Environmental Conservation is a signatory. The draft Scope states that the draft SGEIS will evaluate the impacts in the New York City Watershed quote, with consideration of the fact that New York City controls a substantial amount of acreage surrounding the reservoirs through fee ownership or conservation easements so that drilling would not occur on such acreage without the city's permission, end quote. This misleadingly implies that the city can control natural gas drilling in the watershed through its land ownership or conservation easements. In fact, most land in the watershed is privately owned and controls for watershed protection are achieved through a combination of regulation, land acquisition, infrastructure investments, and partnership programs with watershed communities. Moreover, state enforcement is an important element of natural gas drilling outside of the watershed, and the same should be true within the city's watershed. The nature of property ownership should not alter the mandate of the state to vigorously protect the state's natural resources, including its water resources. The

final SGEIS must clarify these relationships and constraints. As this process moves forward, we reiterate that, in concert with the Bloomberg Administration, Commissioner Grannis has affirmed that protection of our watershed is paramount. We note his commitment not to issue a permit to drill, quote, if a proposed well threaten the city's or any other watershed, and we will not issue a drilling permit in the future if the proposed law threatens the city's or any other watershed, end quote. We are grateful for that commitment, which is essential to the long-term viability of one of New York State's essential irreplaceable resources. DEP also appreciates that Commissioner Grannis has stated that the authority of the New York State Department of Environmental Conservation is sufficient to protect water resources during oil and gas extraction activities. By making that assertion, DEC is making clear that exemptions from certain federal oversight provided for in the Safe Drinking Water Act do not impair New York State's authority over oil and gas well development in New York. DEC is also taking the position that

similar exemptions for oil and gas drilling in other federal statutes do not prohibit New York State from requiring disclosure of information on the composition of the hydraulic fracturing fluid or requiring appropriate erosion and sedimentation controls at well sites. Similarly, DEP can regulate many of the activities associated with natural gas extraction under the Watershed Rules and Regulations, promulgated pursuant to the State Sanitary Code and the New York City Administrative Code. In closing, I want to thank you again for the opportunity to testify on natural gas extraction in New York City's watersheds in the Catskill Mountains, an activity that DEP views with great concern. That completes my prepared statement. I will be happy to answer any questions.

CHAIRPERSON GENNARO: Thank you, Commissioner Lawitts, thank you for your--just some materials here. Thank you for your statement. I'm struck by the case that you make in your statement regarding the risks and particularly about just what--I mean aside from the--aside from possible--oh, we're joined by

Council Member Vallone, Council Member Eugene, happy to have them with us today. And but what this would do to the land acquisition program which you appropriately point out is the cornerstone and make it very difficult for the city to compete in getting more land to preserve our filtration avoidance status if we have to compete with entities that are offering higher sums for the land. And let me ask kind of a, you know, broad question before we get into some detail, sometimes it's--you can get lost in some of the details and there are many. But now the DEP has, you know, rulemaking authority within the confines of the watershed as it--and it has done these over the years, particularly in the--when we did the MOA, that was, you know, we embarked on a whole rulemaking, whole new set of watershed rules and regulations which, at that time, hadn't been updated since 1953, and we put together a robust set of regulations to help protect the water supply and DEP has the ability to do further rulemaking in this area to essentially, you know, preclude this type of activity, which it obviously sees as a threat by virtue of your testimony

1 today, that the testimony of Deputy Commissioner
2 Rush at the--in October--yeah, I mention that--and
3 former Commissioner Lloyd's own statement to
4 Commissioner Grannis back in July. And I'm sure
5 there are--and many are things that are in the
6 comments today. Why not just protect the
7 watershed with the authority that you already have
8 via rulemaking, rather than gamble that the EIS
9 will be sufficiently protective of the watershed.
10 So why not just do it by rulemaking? I know you'd
11 have to run those by the state, but I think that
12 would--I think this is our, you know, best--New
13 York City, I believe, should use the powers that
14 it has to protect like our watershed, rather than,
15 you know, relying on the state--who I don't
16 believe cares as much for our watershed as we do,
17 and so why not do this via rulemaking?

18 STEVEN LAWITTS: Well, I think, Mr.
19 Chair, that earlier when I made reference to the
20 consultant that we've engaged to advise us on
21 these very issues of the effects that the natural
22 gas drilling could have on the watershed on water
23 quality, that our exercise of our rulemaking
24 authority will be more informed and any additional
25

rules that we would promulgate will--can be more precise and more directly address the concerns that we have about protecting the watershed. And so the sequence of events that we see is to increase our body of knowledge about the potential impacts and use that information to formulate any additional rules.

CHAIRPERSON GENNARO: But I would think that with the DEP's current staff, with some of the body of knowledge which is out there, even some old studies that were done going back to the early 90s when I was around working on this issue as a staff member to the Council, the EPA, when considering whether or not to grant New York City, you know, Filtration Avoidance status, and that was a touchy decision by the federal government, and they brought together the best water quality experts, you know, in the country and sat them down and over a course of months, they talked about the--talked about whether or not New York City Watershed should be granted Filtration Avoidance status and they did--and there was a long report and they're finding was that, you know, DEP--that the city should only be granted

Filtration Avoidance status if it could, you know, exercise, you know, adequate control--control it didn't--that [off mic] panel didn't believe could be exercised and they were talking about things that didn't relate to heavy-duty industrial activity like this, it was more just, you know, roads and bridges and schools and all other kinds of more benign activities that would take place in the watershed. So I think the body of work is already out there and it could have been, I mean, this, you know, the posture of the city could have been that, you know, we--that the city believes that this activity inside the confines of an unfiltered water supply is completely, you know, inconsistent with having it continue as an unfiltered water supply and we have the 1993 EPA [off mic] report, we have this other studies, we have--so, you know, we have enough knowledge to go forward and hire a consultant with a view towards, you know, given us the additional information that we need to be absolutely sure that this, you know, needs to be prohibited, but it could've been done with a view towards, you know, not allowing this kind of activity in the watershed, but that's not

sort of like the starting point for the consultant. The consultant is like, well, we'll see, you know, maybe it's possible to figure out a way to get all this done and maybe we can have natural gas drilling within the confines of the New York City water supply and what that would mean to prices on land acquisition and that program and what our--you know, maybe there's a way to do that, which I think is a thesis which is flawed and so and I think it could have and should have been pursued in that way and that the city is looking to ban this kind of--to prohibit this kind of activity, you know, within the watershed and that didn't happen and that's what I think, you know, DEP should have done, and I'm wondering why DEP chose not to do that, to kind of like play along with the state and make this EIS development process as robust as it could be. And that seems to be the tactic that the city is following, which I think is weak to the point of--because it's only the city that really cares about the water supply--I don't think the state cares about it that much. I mean the state has like other goals and that, you know, DEP's job is to advocate with all its

might, you know, for the protection of the water supply and, in the absence of DEP doing that, of the Bloomberg Administration doing that, then the state's going to say, okay, if they're not really animated about this, and they're not, you know, making a real stink, then let's just try to get that done. So, I mean, you know, so we are the custodians of like our water supply, we can't like rely upon the state to do that and this is what DEP and the Bloomberg Administration are doing and I'm trying to figure out why they're doing that. And why they're not playing the role that I believe they need to play because I'm telling everyone in this room, is that, you know, the state is not going to play that role for us. This is our watershed, we have to protect it, the state doesn't care to the same degree that we care and so, you know, we have to be leading the charge on that and in the absence of us leading the charge, this is what we get, we're going to get natural gas drilling in the watershed and a \$20 billion filtration plant which we're all going to have to pay for. And so I think that's a lapse and I'm wondering what your perspective is on that.

STEVEN LAWITTS: Right, well, I do want to reaffirm, Mr. Chair, that protection of the watershed, as I indicated in our testimony, is our top priority, and that's unequivocal.

CHAIRPERSON GENNARO: But I--

STEVEN LAWITTS: There was more to my response--

CHAIRPERSON GENNARO: --I'm going to let you finish and then--

Steven Lawitts call in: --Mr. Chair.

CHAIRPERSON GENNARO: --I'm going to let you finish.

STEVEN LAWITTS: Okay. And we are taking a several pronged approach to protecting the watershed, one which I referred to earlier is we've been on record going back to former Commissioner Lloyd's first letter months ago expressing our concern. We submitted, as we indicated in the testimony, very detailed comments on the Environmental Impact Statement, on the scoping of it, and on the issues that need to be addressed in it, and starting this summer, this past summer, we began the effort to fund and

procure the consultant who will give us expertise in the areas associated with protecting the water supply, specifically associated with this technology of natural gas drilling. And so I do appreciate you recounting for us the history of deliberations on this going back to the 1990s, I think, as we indicated in the testimony, one of the reasons we engaged the consultant is because of the technological advances that had--have been made in this drilling process--both the hydro-fracturing process itself, as well as the horizontal drilling technology changes and we, because of these recent changes in technology, we need to look beyond what was done in the 1990s and the body of knowledge that existed then and we need the consultant, we need that additional information to more directly fashion any changes in regulations that we need to protect the watershed. And I think just to address your comment from a few minutes ago, which I--if you were suggesting that the consultant may, you know, have an orientation other than protecting the watershed, that is why we engage the consultant. It's all in the context of given us the

information we need so that we can responsibly issue new regulations as required and utilize the existing regulations we have in the existing enforcement authority that we have, but without, as the testimony indicated, without prematurely seeking to more widely or totally ban such activities in the watershed.

CHAIRPERSON GENNARO: But, you know, no one could seriously fault the city's DEP if the posture of the DEP were that we have grave concerns about this activity to the point where we don't believe this can be allowed and we already have, you know, a body of knowledge to support that, and it is going to be our attempt as the city's custodian, you know, of the water supply and this precious and irreplaceable resource that this is something that we don't believe can happen and we're going to do everything we can to sort of justify that position because we think it's a, you know, prudent position and it's up to the state to kind of, you know, make the state--to make the case that it can or whatever and it is our responsibility to exercise maximum--we're talking about a situation where, you know, with regard to

unfiltered water supplies, I believe we're one of
5--

STEVEN LAWITTS: That's correct:

CHAIRPERSON GENNARO: --and the
other four, you know, to my knowledge, don't have
any development in them whatsoever. And that was
a concern of the Blue Ribbon Panel back in, you
know, 1993 or whenever it was that their position,
when they were considering this for EPA, their
like first response is, are you kidding. It's
like they could never exercise the amount of
control over this, you know, 2,000 square mile
watershed, they at the time only owned 3% of the
land sort of outside the--they owned 7% of the
land overall, but half of that land was under the
water of like the--of the actual reservoir, so
they owned very few. And their position was that
it's almost inconceivable that this watershed
could ever exercise, you know, the kind of control
that it needs to sustain filtration avoidance like
over the long term and they basically, you know,
recommended to EPA that we not be granted
Filtration Avoidance status, you know, for that
reason. So I think the City's completely within

its right to say that, based on all the information that we have, we don't think this should happen and that's going to be our approach. But it didn't take that and when people compare the posture of DEP regarding this threat to the water supply, when they compare the response of DEP in this case versus other, you know, perceived threats like the Bel Air development, that was one development, one ski resort or whatever, hotel, golf course, complex, that, you know, DEP went on the line and said that, you know, this poses a threat to Filtration Avoidance, this one development and now we're talking about the possibility of who knows how many wellheads that could be developed and DEP is not taking the same, you know, vigorous approach in dealing with this threat. And I think that--I think it may stem from, in the former case when it was the--when it was a development and we were going against a, you know, private developer and now DEP is going up against, you know, New York State, an adversary it doesn't believe it can conquer or win or whatever because DEP--because the State is ultimately, you know, holding the cards with respect to the

management of the FAD, of the Filtration Avoidance Determination, and the State has infinite ways to kind of, you know, to give the City a hard time.

And so like the City arguably is up against a very tough foe in this case and maybe it doesn't believe it can prevail in that kind of, you know, match up and is kind of, you know, settling for, you know, playing this game like by the State's rules and I think that that's an abdication.

What's your response to that?

STEVEN LAWITTS: Well I wouldn't characterize it the way you just did.

[Applause]

CHAIRPERSON GENNARO: [Crosstalk] We can't have outbursts like that, I--it would just-- I have to--we can't have that, but thank you, I guess, but we can't do that.

STEVEN LAWITTS: Thank you, but don't do it again?

CHAIRPERSON GENNARO: Right, yes, we can't have that.

STEVEN LAWITTS: Okay. Well I wouldn't characterize it the way you just did, Mr. Chair, with all due respect. Going back to your

earlier comments about before we got our first Filtration Avoidance Determination and people were skeptical about our ability to manage the watershed, we did receive the first Avoidance Determination, we received renewals to that in five-year increments and, as we indicated earlier, in 2007 we received an unprecedented 10-year extension to the FAD. And, you're right, we're one of only five cities that are exempt from filtering their surface water and we're the only city with a 10-year exemption at this point, and we take that trust and that obligation very seriously. And I think that the fact that we got a 10-year extension to the FAD is an indication of how well we have protected the watershed, how well we've articulated our goals and how many resources we've provided in both our capital and operating budgets to fulfill those goals over the next 10 years.

CHAIRPERSON GENNARO: But--no, no, no, no, no, I cannot recognize anybody from the audience, no, I cannot recognize anybody from the audience. But that 10-year plan was premised on DEP's ability to continue the cornerstone of the

watershed protection strategy, which was land acquisition, which now is in, you know, grave jeopardy at this point, you know, by your own statement. And I think that is exhibit a, separate and apart from the pollution that would invariably result from this kind of activity. Just the problem that this causes for the land acquisition program has already thrown this, in my view, this, you know, 10-year FAD off course because DEP will not be able to proceed, you know, with the amount of money that was put, you know, in the budget to, you know, meet the land acquisition solicitation and acquisition targets and so there you have it. I would--let me also ask the extent to which other entities within the Bloomberg Administration whom you don't speak for have been engaged, to what extent have there been discussions with the Office of Long Term Planning and Sustainability, to what extent have there been discussions maybe with OMB or other entities within the Administration and what--if you could just characterize those discussions or indicate what kind of discussions have been taking place and like with what entities outside DEP, but

within the Bloomberg Administration.

STEVEN LAWITTS: Well, yes, you are correct to observe that--I can't speak for those other agencies--

CHAIRPERSON GENNARO: Right.

STEVEN LAWITTS: --but I can speak to the discussions we've had with them. We are in constant communication with the Office of Long Term Sustainability, planning with OMB, with many other city agencies and partly in consultation with other parts of the Administration. We've indicated again, we need to protect the watershed, that we've never wavered from our full commitment to do that, but we need to, in this case, within the case of the natural gas drilling, we need to increase our body of technical knowledge and we need to--in order to enable us to better protect the watershed from any negative impacts that are associated with the natural gas drilling, we need to have this increased knowledge. So the sequence of events is getting that body of knowledge and then taking whatever regulatory and legal action we need to take in a as directed and pointed--pointedly [background noise] as possible.

CHAIRPERSON GENNARO: Let me kind of just speculate and this is, I want to say at the outset this is nothing more than speculation, city's in a fiscal crisis and, as much as it doesn't want to--and this is speculation of what may be going on in the minds of people outside of DEP, but inside the Bloomberg administration, DEP's job is to protect the water supply, the rest of the Administration needs to figure out a way to how to like float the entire boat and fund cops and salaries and pensions and everything else. And, as we heard in the testimony in the statement--even in my statement--we have--the city owns 118,000 acres of watershed--well I guess that's what we control, that's--but certainly, you know, through easements, but we certainly have fee title to a lot of land and so the city is a land owner that could conceivably be interested in making some money off mineral rights itself and, maybe like other land owners upstate, does it want to, you know, miss that opportunity. Commissioner Lawitts, do you know or have you heard anything from other sectors of the Administration that leads you to believe that the city itself as a

land owner might have an interest in entering into leases with gas [off mic] companies on its own lands and getting revenue for the city via that arrangement?

STEVEN LAWITTS: Well, Mr. Chair, as you indicated in your preamble, it is speculation on your part, there has been no discussion of any intent or desire for the city to use any potential income that it could obtain from natural gas drilling and we would never seek those additional revenues at the expense of--

CHAIRPERSON GENNARO: [Interposing]
We meaning who? We meaning who?

STEVEN LAWITTS: Of--we, the city--

CHAIRPERSON GENNARO: The city.

STEVEN LAWITTS: --we, the city and-

-

CHAIRPERSON GENNARO: [Interposing]
'Cause now I've been making a little bit of a distinction between, you know, DEP and other entities in the Administration who might have sort of different goals than DEP.

STEVEN LAWITTS: We would not--we would not do anything to endanger the water

quality at the--for some marginal revenue gain.

CHAIRPERSON GENNARO: And now New York State is also a landowner within the watershed presumably, right? New York State has a lot of holdings?

STEVEN LAWITTS: That's correct.

CHAIRPERSON GENNARO: Okay. Have you heard anything that New York State has an interest in making arrangements for natural gas companies on--to get a natural--to--I'm having a fluency problem here. Do you know, if--have you heard anything about the state itself having an interest in leasing some of its lands for natural gas development?

STEVEN LAWITTS: I have not, Mr. Chair.

CHAIRPERSON GENNARO: Would there be any--I'm not a lawyer--would there be any, in your view, a legal impediment to the state or the city entering into these kinds of arrangements? Would that be something that would be like legally possible?

STEVEN LAWITTS: I--well, you raise I think a broader question, Mr. Chair, which is--

the short answer to your question is, I don't know of any legal impediment, but in addition to the engineering issues that we've raised, the engineering issues, the expertise we want to get from our consultant in terms of effects on the water supply, there are a set of legal issues that we need to more fully address and we're looking into those as well and I think part--that's [crosstalk]--

CHAIRPERSON GENNARO: [Interposing] I don't understand that part of [crosstalk] I'm sorry.

STEVEN LAWITTS: Well, I think that goes back to one of your earlier questions about why don't we just outright ban any exploration [crosstalk]--

CHAIRPERSON GENNARO: By rulemaking, right.

STEVEN LAWITTS: --right now and, again, I keep going back to the fact that when we do promulgate rules, we want them both to, as directly as we can, address the concerns that we have about protecting the watershed. We also want to ensure that they stand up to legal scrutiny and

challenge, which is a likely outcome as we promulgate rules that they will be challenged, so we want to ensure both on the technological side, if you will--

CHAIRPERSON GENNARO: Right.

STEVEN LAWITTS: --that we get the expertise to develop the rules that address those concerns that could negatively impact water quality and we also want any new regulations or changes in regulations to withstand challenges.

CHAIRPERSON GENNARO: Right, and that type of thing may be, I'm just guessing, let's say you have a landowner within the watershed that has already signed some kind of lease arrangement like with a gas company and they have, you know, expectation of some kind of income coming from that and now in the light of new, you know, city regulations in the watershed, that would preclude that landowner's ability to realize that income, that is a potential legal issue, right? Is that like a taking or something? I don't want to sound like a lawyer here, but someone's already entered into an arrangement with a gas company to give them rights to their land,

the city essentially says, well you can't do that kind of thing on your land because we just created this new rule that says you can't. That's the kind of legal issue, that would be an example of the kind of legal issue--

STEVEN LAWITTS: Yes. Yes.

CHAIRPERSON GENNARO: Okay. And while I'm formulating some more questions, I want to recognize Council Member Vallone for a question, he's been patient. But I have other questions, I just want to make sure that I continue my questioning for like the proper questions, but Pete can step in and just ask his question. I recognize Council Member Vallone.

COUNCIL MEMBER VALLONE: Thank you, Mr. Chair. As the Chair said, this is our water supply, but we're allowing New York State to make the decisions as to where the drilling is allowed. Now you testified that Commissioner Grannis has affirmed that the protection of our watershed is paramount and we note his commitment not to issue a permit to drill if a proposed well threatened the city or any other watershed. So here's my question, if the State, in its infinite wisdom,

allows drilling and they've decided that it's not going to hurt our watershed and they're wrong, which with New York State happens the vast majority of the time, and they're wrong, are they going to then pay for our water filtration system?

STEVEN LAWITTS: Well I can't answer that because that's speculative, Council Member.

COUNCIL MEMBER VALLONE: Well, it's not, it's good business, it's protecting New York City residents' rights and money. We don't have any money here in New York City, as your boss well knows and we don't have 20 million, we don't have any millions to put a filtration system in. So if the State's going to guarantee us that they're not going to do anything to hurt us, the guarantee is completely useless if they don't also guarantee to pay for their--the damage if they're wrong. So is that part of your negotiations? Are you discussing this with the State, who's going to pay for the filtration system if the State's wrong?

STEVEN LAWITTS: Well, again, I go back to--and this was before you came into the chamber perhaps, Council Member Vallone--is there's a sequence of events that we're following

and one is we've submitted comments on the scope of the Environmental Impact Statement so that our concerns about natural gas drilling are addressed in the environmental impact scoping process.

We've engaged a consultant to increase our knowledge about the effects of natural gas drilling on water quality and on the water supply and we're going to use that knowledge to promulgate any necessary new rules or any changes to existing rules. And so while we are working with the State and, while the State has committed to protect--to help us protect the watershed, it is our responsibility, we're accountable for it, and that's why we're--we've provided these resources to increase our knowledge and help us do the things necessary to protect the watershed.

You know, I would just like to add in the general context of ensuring that half of New York City's water supply continues to function for the next hundred years, you know, despite these tough financial times, we've already committed over \$250 million to--just as the first construction step towards fixing the leak in the Delaware aqueduct. That, you know, that's an issue for example where

when you look at the engineering reports and the numerous tests that we've done and the chance of that leak becoming larger is very, very small, yet we're spending a considerable sum of money on it because we don't want to take any chances. So we're spending \$250 million as just the first installment in what ultimately will be a several billion dollar solution to the Delaware aqueduct taking place over a period of many years. So just--that's part of our long-term approach to protecting the watershed and our capital program, as tight as our resources are, provides significant funding for the first time in a capital program for subsequent construction stages of [crosstalk]--

COUNCIL MEMBER VALLONE:

[Interposing] Excuse me [crosstalk] back to my question and then we'll let you and the Chair have a long discussion on whatever you're talking about, but I had a specific question here and you just mentioned the hundreds of millions you're spending some place, which I'm not questioning, but we're talking about the \$20 billion that a filtration system will cost if the State is wrong

1
2 when it makes this decision and I wanted to know
3 what safeguards were put in place to ensure that
4 doesn't happen to New York City. And I did read
5 the testimony, I had ample time to read the
6 testimony, and there's nothing in there about
7 that, there's nothing you just said about that.
8 It's not speculation, it's a very, very good
9 possibility and you need to address it. And if
10 there is no guarantee from the State that they
11 will be responsible for the ramifications of their
12 decision, then the State shouldn't make this
13 decision, you should make this decision, we here
14 in New York City should make that decision. Thank
15 you.

16 CHAIRPERSON GENNARO: I just wish to
17 follow up on Council Member Vallone's questions
18 and--question and comments. We have a situation
19 where I've, you know, reached out to the federal
20 government, who was very involved in this issue
21 for many, many years and ultimately, you know,
22 granted us this Filtration Avoidance waiver. It
23 kind of took a gamble on us, wanted us to succeed,
24 you know, that was a different era and I've, you
25 know, reached out to the federal government and to

the EPA to have them answer my question, which was whether or not--and I asked them point blank whether or not, you know, this kind of drilling activity inside the confines of the city's water supply could put our Filtration Avoidance in jeopardy and lead us to having to build a, you know, \$20 billion filtration plant. And, you know, they have not answered my question because they're part of the, you know, drill baby drill, federal government that wants to go headlong into this and they know full well, you know, that the only answer to that question is yes, that it will, you know, hurt the water supply. So they don't want to answer my question and so what the people of the city of New York I fear are, you know, looking at is a, you know, \$20 billion sort of consequence to this mad, you know, drill baby drill policy and that is what we're looking at and this is the bill that the people of the city of New York will be stuck with if they have to, you know, build this filtration plant. And I think, you know, on some level we've got to, you know, city's DEP to one extent possibly, you know, caught in this wedge between the, you know, state

government that, you know, wants this to happen, the federal government that's all drill baby drill, other sectors of the Bloomberg Administration that perhaps want to realize national gas drilling revenues, you know, themselves and are looking for a little, you know, short-term gain to--and are willing to sort of, you know, take the chance that we'd have to have a, you know, \$20 billion long-term liability and so that's a lot of, you know, layers to be kind of like wedged in between. And I don't, you know, envy the DEP and the position that they're in, but I still believe that, you know, notwithstanding all the layers and all the wedges and everyone-- that's like trying to do whatever, it is, you know, really incumbent upon the DEP and the Bloomberg Administration to do--to use all of its, you know, resources, any kind of capabilities it has to, you know, preclude, you know, this kind of activity and that has not been evidenced by what has been put forward by the DEP to date. Going back to the unfortunate letter of--in July 18th by previous Commissioner Emily Lloyd and notwithstanding the fact that it did lay out a

series of concerns about drilling did set this, you know, one mile buffer, this zone, which I thought, you know, set the bar, you know, unrealistically low. And because we buy, you know, we buy watershed lands all the time that are much further away than one mile from any reservoir or watercourse, but to say that, you know, we can purchase something miles away and that--from water and that forges some protection, but you can do this kind of activity within one mile of a watercourse, you know, set the bar low and I think we're, you know, paying the price for that. And I hope that your consultant can ultimately say that this letter that was sent out in July was unwise. Anyway, getting back to the technical questions of the consultant, will DEP's consultant be done with the reports before the GEIS update is complete? That is, you know, in time to advise the state in what they have to do with the GEIS?

[Off mic]

DAVID WARNE: Right, well we--I guess we outlined in the testimony, Mr. Chair, the consultant is--the consultant work is in two phases, one a rapid assessment of the issues,

which is scheduled to be completed in three months. So the consultant is beginning work at the beginning of January and that first phase of the work will be done approximately the beginning of April, and then--

CHAIRPERSON GENNARO: [Interposing]
Will that be in time for the state with its process? I'm not an expert on [off mic], but just please if you could just identify yourself for the record.

DAVID WARNE: Yes, my name is David Warne, I'm Assistant Commissioner for DEP Bureau of Water Supply. The State has indicated that they intend to complete a draft of the supplemental EIS in the spring of next year, I think they said March.

CHAIRPERSON GENNARO: So is that to say that the work product from the consultant-- from the DEP consultant will not--that that work product will not have the ability to sort of bear on what the State does, is that fair to say?

DAVID WARNE: The state is--will develop the draft EIS based on the final scope. There's no opportunity for public input in

development of the draft EIS subsequent to completion of the scope, so I think the way I would characterize it is that the--our consultant work will be going on in parallel with the state development of the draft EIS and then when the state is ready to put out the draft for public comment, we'll have the benefit of the consultant work to help inform our comments on the draft.

CHAIRPERSON GENNARO: And then the state conceivably could, you know, use those comments to inform the final product, right? That would be--

DAVID WARNE: That's correct.

CHAIRPERSON GENNARO: Okay. We're joined by Council Member Melissa Mark-Viverito, happy to have you with us today.

STEVEN LAWITTS: Mr. Chair?

CHAIRPERSON GENNARO: Yes.

STEVEN LAWITTS: Can I just--I'm sorry if--I just wanted to address one comment you made of--

CHAIRPERSON GENNARO: Sure.

STEVEN LAWITTS: --a minute ago--

CHAIRPERSON GENNARO: Sure.

STEVEN LAWITTS: --before you completed the question about the July letter from former Commissioner Lloyd.

CHAIRPERSON GENNARO: Right.

STEVEN LAWITTS: While it--again, the primary intent of the letter was to express our very serious concerns about the issue of natural gas drilling in the watershed. This was a letter we wrote very shortly after these issues were allocated to us--

CHAIRPERSON GENNARO: [Interposing] Fast turnaround, I had a conversation with Emily about and it was turnaround in a hurry.

STEVEN LAWITTS: Right, and so I would look at the expression of desire for a one mile buffer not so much as an absolute one mile, but as an intent to get the idea of a buffer on the table and to get that out in the public.

CHAIRPERSON GENNARO: Right, and--

STEVEN LAWITTS: The size of that buffer--the appropriate size of that buffer is one of the items we want to clarify through this consultant work.

CHAIRPERSON GENNARO: Right, but the

problem--one of the unfortunate aspects of that letter, which I won't belabor, is that what you just said could have been expressed in that, you know, part of the letter, but that's not how it was really crafted. It said one mile and it just--it remains an unfortunate utterance that other people are going to run with and then, you know, DEP is going to have some work to do to kind of undo what its own, you know, experts put forward. I just think that that's just a problem, you know, and what it intended to say on--in July 18th and what it actually said, are, you know, perhaps different things and that's just a problem, but I appreciate that clarification. Another question regarding easements that the city owns--that the city holds now. Would that--someone who's entered into the city with an easement and the city holds an easement, would that prevent the land owner that entered into an easement with the city from doing natural gas development on his or her property? Do the easements that we enter into now and that we currently hold--

DAVID WARNE: [Interposing] The easements that we've entered into are expressly

for conservation purposes and--

CHAIRPERSON GENNARO: Right.

DAVID WARNE: --protecting the watershed, so there can be no development--

CHAIRPERSON GENNARO: Right.

DAVID WARNE: --in place--

CHAIRPERSON GENNARO: Okay.

DAVID WARNE: --on those easement properties.

CHAIRPERSON GENNARO: Great. And, okay, let me just the other, was my other questions. Where is my--I'm looking for my yellow annotated copy of my questions. Here it is. Make sure I got...

[Off mic]

CHAIRPERSON GENNARO: Okay. Let me just recognize that we're--or recognize the following members who have joined us: Councilman de Blasio, thank you very much for being here, Councilman Recchia. And with no more questions from us, we'd like to thank you very much for, you know, coming today. We have an appreciation for the situation that you're in, but I believe that, you know, DEP needs to take a different course and

1
2 have a posture that is heading in the direction of
3 figuring out how to preclude this kind of activity
4 from the city's water supply and, failing that, I
5 believe we're looking at a future filtration
6 mandate and that's something that DEP should do
7 everything in its power to prevent and if DEP is
8 not sort of leading the charge in, that is
9 something that it just won't happen absent that,
10 because no other player out there on the field is
11 going to speak out for the watershed like DEP and
12 the Bloomberg Administration need to--the federal
13 government's not going to do it, the state
14 government's not going to do it, and so it's you.
15 So we thank you for being here, we'd, you know,
16 like you to consider that and we look forward to
17 working with you and your good people as we
18 continue this process. Thanks very much for being
19 here.

20 STEVEN LAWITTS: Thank you, Mr.
21 Chair, we certainly share your commitment and it
22 is our priority and we'll move forward in that
23 regard and want to wish you all a Happy Holidays.

24 CHAIRPERSON GENNARO: You too, you
25 too. Thanks very much. And our next [off mic]

witnesses. Our next witness is Mr. Langhorne Smith representing the New York State Museum, and I guess, by extension, representing New York State. [Off mic]

MALE VOICE: The clock, the clock.
You want the clock?

CHAIRPERSON GENNARO: Oh no, no, not now, not yet, not yet. [Off mic]

MALE VOICE: Okay.

CHAIRPERSON GENNARO: Okay? And Mr. Smith will be followed by Al Appleton. So that's the next two in the batting order.

[Off mic]

CHAIRPERSON GENNARO: And so I would ask--Mr. Smith, thank you very much for coming in today, we appreciate your being here. Counsel to the committee will swear you as we do with all our witnesses and then you can state your name for the record and proceed with your testimony. Can we have some order, please?

COMMITTEE CLERK: Sir, please raise your right hand. Do you swear or affirm to tell the truth, the whole truth, and nothing but the truth today?

LANGHORNE SMITH: I do.

CHAIRPERSON GENNARO: Thank you, Mr. Smith, and just before you commence your testimony, I just--you put on your witness slip that you're representing the New York State Museum. I just want to make sure that you're here in a capacity representing the New York State Museum and not just you as like a private citizen. So you're representing the New York State Museum, and I guess, by extension, New York State, as someone who is here in an official capacity.

LANGHORNE SMITH: Yes, I mean, I don't think I can say I represent the state, I do represent the New York State Museum inasmuch as I'm a scientist there. My testimony has not been reviewed by anyone else and it's very much coming from myself alone.

CHAIRPERSON GENNARO: Okay. I just wanted to get a sense of that before you commenced.

LANGHORNE SMITH: Yes.

CHAIRPERSON GENNARO: Okay.

LANGHORNE SMITH: Yeah, yeah, my name is Langhorne Smith I work for the New York

1 State Museum as a research geologist, primarily on
2 subsurface geology which includes oil and gas,
3 carbon sequestration, compressed air energy
4 storage and other potential uses for the
5 subsurface. I'm also just a scientist who's
6 interested in rocks and how they form. I do know
7 something about oil and gas geology, I worked for
8 an oil company for some time and I--and a lot of
9 our--the work that we do is of interest to oil and
10 gas companies. I'd like to start with a short
11 statement on the basic geology of the Marcellus
12 natural gas reservoir and a little discussion of
13 natural gas itself.

14
15 CHAIRPERSON GENNARO: Yeah, well,
16 just for the--and, again, what I'll do is, because
17 we have a lot of people who wish to testify here
18 and I'd like to the extent that people can, to
19 kind of, you know, restrict their comments to the
20 focus of the hearing, which is potential threats
21 to New York City's water supply, you know, from
22 this kind of activity. Everyone, you know, has a
23 sense that we do need clean fuels, we do need this
24 but--and the, you know, state needs revenues and
25 people, and like the economy. But this is--I have

to--I'm trying to get people to focus on the issue at hand just by virtue of the fact that we have a lot of people that want to testify.

LANGHORNE SMITH: Okay.

CHAIRPERSON GENNARO: If you could restrict that.

LANGHORNE SMITH: Well, yeah, well, that cuts out a lot of my testimony then. But it--

CHAIRPERSON GENNARO: But I'll ask-- but [crosstalk]--

LANGHORNE SMITH: [Interposing] I'm here as a geologist, who can--

CHAIRPERSON GENNARO: Sure.

LANGHORNE SMITH: --answer questions about the reservoir and how wells are drilled.

CHAIRPERSON GENNARO: Right.

LANGHORNE SMITH: Can I go through that [crosstalk]--

CHAIRPERSON GENNARO: Sure, sure, sure.

LANGHORNE SMITH: Okay.

CHAIRPERSON GENNARO: And I'm here as a geologist who's Chairman of the Committee,

I'm actually a--

LANGHORNE SMITH: Oh, are you?

CHAIRPERSON GENNARO: --geologist
myself.

LANGHORNE SMITH: Oh, good, good.

CHAIRPERSON GENNARO: And we'll go
out for a soda pop after this, maybe we find the--
find the [off mic] eutectic [phonetic] point, you
know, binary phase [background noise] so.

LANGHORNE SMITH: All right. Well,
I would just point out--

CHAIRPERSON GENNARO: Insider stuff,
you know.

LANGHORNE SMITH: --that, one point
is that New York State consumes about 1.2 trillion
cubic feet of natural gas per year. And that a
good chunk of that is consumed here in the city,
so this is something that we're completely reliant
on at this point and so we need natural gas.

CHAIRPERSON GENNARO: To address the
members here [crosstalk]--

LANGHORNE SMITH: So just to have
that, yeah, I'm sorry about that. That the
country is now producing about 23--or consumes

about 23 trillion cubic feet per year and we produce about 20 trillion of that in the country, the rest is imported from other countries, mostly from Canada. The recent discovery of these organic rich shales like the Marcellus, that they can produce economic quantities of gas from them does give us some hope for being able to provide energy for the country for the coming decades anyway. So--and maybe get us back on to where we produce as much as we consume. So it's been an important advance in oil and gas drilling technology that will keep our gas burning power plants and stoves and heaters working for a few years anyway. So I'll go right into the shale gas reservoirs are different than conventional reservoirs in that the source rock is also considered to be the reservoir. There have been about 70,000 wells drilled in New York State from the mid-1800s to present. A lot of these got little bits of natural gas out of the Marcellus and other organic rich shales as they were drilling, but they always considered them to be uneconomic. It was the advent of these technological breakthroughs of horizontal drilling

and the large volume frac jobs that makes these reservoirs potentially economic and we still really aren't entirely, you know, in sure that all of the organic shales will produce economic quantities of gas, but the Marcellus looks promising so far. The way they do it is they drill down vertically to the target and then they can actually turn the drill bit and drill out horizontally in the layer they want to be in. They then set a pipe inside that hole, so they put pipe all the way down. These--the shale in New York is several thousand feet below the surface, in the area of the watershed it'll be 6,000 feet below the surface, probably 5 to 6,000 and so they'll put pipe all the way down--and including over the shale, then they cement the pipe into the hole so that no gas or water can escape behind the pipe and get to the surface. If they don't do that, it's not worth doing because the gas will escape and they won't be able to make any money on it, so they--it's very important to them to get a good cement job around the pipe. They then drill two holes in the pipe and pump high-pressure fluid through the pipe out into the formation where it

induces these fractures that are--were the key to making these reservoirs work, to making the gas flow economic. The fractures will go up probably a few hundred feet from the pipe and the companies want them to stop, you know, within a few hundred feet, so that they're not paying to fracture rock that doesn't have any gas in it. And so it's important to note that everything that flows out of the well from that point on will come out of the pipe, it won't be coming up percolating through the ground or anything like that, it will be coming out of the pipe where it's then captured and can be dealt with in a responsible way. I'll--there are many who are concerned about the frac jobs and I would imagine if you weren't that well-informed about it that it would sound kind of scary, you know, how the frac jobs are done. It's a very common practice in the oil and gas industry, it was discovered back in the late 40s, I think, and it's been used ever since. To my knowledge, about 30 to 70% of the frac fluid that's pumped into the formation flows back out, it's captured and they take it away and dispose of it in a responsible manner, that's what the

regulations dictate that they do at any rate. The rest stays underground. Frac jobs have been done on a smaller scale for many decades in-state here, most of them out in the western part of the state. I would recommend that people from the western part of the state be contacted and see if there ever been any problems with them in terms of what groundwater contamination, etc. Like the earlier testimony stated, from what I understand, the frac fluids they're going to use in the Marcellus are 99.4% water and the rest are these chemicals that they put in. From what I understand, a good chunk of the chemicals are surfactants, which are also known as soap, which lubricate the fractures and help the sand and water get further into the formation. But there are--but they keep it proprietary, as you know, because they--these are trade secrets and if they tell everybody, then anybody could do it, so they want to keep it proprietary. From what I understand, talking to people at the DEC, they will be divulging the composition of the frac fluids to the DEC, if not to public, the DEC will know what is in all the frac fluids that are used. So it will be possible

to then model fluid flow and try to understand any potential dangers posed by the frac fluids. I just wanted to clear up--there--I mean, our job at the museum is to educate, I'm in the New York State Education Department actually, so I'm just going to pass along what I know about drilling and try to supplement some of the reporting that's been done on this issue. There were some article--there was an article published in July in the Albany Times Union by an organization called ProPublica and a longer version of that same article was put up on their website and there's been subsequent reporting on that article and on this issue in other places and I just thought that I would touch on a few points that should be addressed that were brought up in that. First of all, while I can sense from the committee that there is--that there is not much trust for New York State DEC here and I--and that certainly was evident in the articles as well and I--I mean I would just say that currently New York has some of the most stringent oil and gas regulations in the country and it's my understanding that the DEC has done a very good job since its inception of

keeping our environment clean. It's their job to make regulations for the development of these shale gas resources that protect our environment, that's their job is to protect the--

CHAIRPERSON GENNARO: Right.

LANGHORNE SMITH: --environment, it's not to help the companies--it's to help the environment.

CHAIRPERSON GENNARO: Pete Grannis spoke to this when he testified before--

LANGHORNE SMITH: Yeah.

CHAIRPERSON GENNARO: --the committee, so I'm--

LANGHORNE SMITH: I don't need to rehash that--

CHAIRPERSON GENNARO: Right.

LANGHORNE SMITH: --then, but they-- I'll just point out that they have a lot of power over companies because they can refuse to issue permits to them. If the company breaks the rules, they won't get any more permits. This play is going to completely depend on drilling lots of wells, which they'll need lots of permits for, so it's going to be in the company's interest to

follow the regulations that are given by the DEC. It's in the interest of both the personnel at the DEC and industry that the drilling be done in a clean, environmentally sensitive matter. New York already has stricter regulations than most states for oil and gas drilling. In one of the articles there were stories of groundwater contamination from drilling fluids in New Mexico and Colorado. Most or all of this contamination occurred because those states, you know, inexplicably do not require liners to be installed in the pits that are dug to hold the drilling fluids. New York state has required that liners be placed in the pits since the 1980s, so we're well ahead of these other states. All the damage that occurred in those states would not occur here because we have these liners or most of--I should say most of those examples, you know, cited in the article would never occur here because we have the liners--the liners protect the drilling fluid from interacting with the groundwater and keep it separate. There was another statement made in one of those articles that after the fracking, that the gas will then surface, bringing with it

natural toxins from the shale, including suspected cancer-causing compounds. Again, it will surface inside of a pipe where then the water can be dealt with in a responsible way, it won't be bubbling out or on the surface all around the well site, and that's an important point to make because the article makes it sound as though this might be happening and I think the public should know that it's all coming up in a pipe where it can be managed effectively. And finally, there was a statement made, in most states the tainted water produced by gas drilling is injected back into the ground in areas where solid rock layers keep it isolated from their people or their drinking water, but the geology in New York and Pennsylvania is different and the water will be discharged into an ecosystem where it might wind up coming out of New York City's taps. Well that's pretty terrifying, I think I would--that would worry me if I was sitting in your seat, but there is no--and the reader might be excused for thinking that the statement, the water will be discharged into an ecosystem sounds a lot like it's going to be taken from the well and directly

dumped into the local stream and the DEC regulations will not allow anything like that to occur. The regulations require the drillers to capture the water and take it to water treatment facilities. The DEC has stated from the beginning that the used frac water and the produced water from the shale would be taken to industrial waste treatment facilities in Pennsylvania or possibly to municipal water--wastewater treatment plants. Plant operations--plant operators, I imagine will be giving guidelines on how to test the water to make sure that any potential harmful substances would be removed. The second half of the sentence which suggests that the drilling-related fluids will end up flowing out of New York City's taps is probably the reason we're all here today. It's hard for me to see how the frac fluids will end up flowing out of the taps, just knowing what I know about the industry and how it works. As stated above, the regulations dictate that the frac fluids and produced water will be disposed of in treatment plants, accidents could occur, but there are clean up and remediation regulations that should prevent significant amounts of any spilled

fluid from entering the water supply. It might help to increase the comfort level if someone modeled a spill some short distance from a reservoir and what its impact on the water quality might be, I mean try to get the facts on how great a danger is this. If a whole tank spilled over and dumped all of its frac fluid on the ground, what would happen? It's possible they do computer modeling and hydrological modeling of what exactly would happen and what the contamination risk would be and from there we could, you know, decide what's an acceptable risk and what's unacceptable and I think--I'm here basically to make a plea for science to be how we make the decision and nothing else. So a lot of other things were already covered and I appreciate you're asking me to testify.

CHAIRPERSON GENNARO: Thank you, thank you, Mr. Smith. Council Member Recchia has a question.

COUNCIL MEMBER RECCHIA: Yes, Mr. Smith, as you know, Canada's been drilling a lot, you know, and there's lots of Canadian trust, that companies going up there and are you aware of any

drilling that has taken place in Canada that's near a reservoir or watershed and that's very similar to what they want to do in New York State?

LANGHORNE SMITH: I'm not aware of one, but that would be a useful exercise to try to find analogous situations, but I'm not personally aware of [crosstalk]--

COUNCIL MEMBER RECCHIA: That's of concern to me and I'm sure to other people that it's so close to the watershed. And like now you were saying about the liners, is that liner in addition to the concrete boundary that there has to be poured in when they put the pipes in?

LANGHORNE SMITH: Okay. The liner is in a pit that's next to the drill rig.

COUNCIL MEMBER RECCHIA: Okay.

LANGHORNE SMITH: Okay? It's completely separate from the hole that their drilling, but when they drill they use water to keep the drill bit cool and to cycle the rock out of the formation, so it comes back and then they keep that in this pit that they dug and put a, you know, plastic liner and to keep the water from infiltrating the ground. So that's a separate

from the--when they drill the well, they then put a pipe all the way down of 7, 8, 9,000 foot length of pipe that they cement into the hole, they squeeze the cement in and then that goes up around the outside of the pipe to keep it--to keep anything from escaping up on the outside of the pipe and--

COUNCIL MEMBER RECCHIA: And that is sufficient to protect the watershed or any water, like the nearby reservoirs?

LANGHORNE SMITH: If done correctly, it would be sufficient to protect--to keep any fluid from escaping outside the pipe.

COUNCIL MEMBER RECCHIA: Okay.
Thank you.

CHAIRPERSON GENNARO: Thank you, Mr. Smith. I just have a comment that, while certainly we have to be mindful of any kind of contamination that could ensue from the actual drilling and fracking process on the site, and your testimony spoke to what happens at the site with the actual frac fluids, the integrity of the piping system underground and all that, but there are--and I have an appreciation for, you know,

what you have to say, but this committee is viewing the prospect of drilling in the water supply in a, you know, larger context as well that we have to consider all of the road building that would have to go on to get to the site, what it does to our land acquisition program. We were, you know, once upon a time in this when we were developing these watershed rules and regulations with the DEP, you know, down to the level of, you know, limiting how people can like pave their driveways and where they can put up their basketball hoop, because it's kind of like on that level of detail because we're dealing with a system that in a perfect world an unfiltered water supply wouldn't have anybody living in it whatsoever. And so, you know, even if it were the case that there were, you know, no risk at the site from any things that you talk, that which I don't fully accept, that would mean even if they could make it, you know, 100% safe at the site, doesn't mean it would be good for an unfiltered water supply with all the road building and what it does to the land acquisition program and all the other things. So--and I appreciate that you

have some expertise in this area and you have shared it with the committee and we will consider it, I just want to let you know that we have like a bigger view that we have to take and we certainly appreciate your, you know, being here today and thank you for coming.

LANGHORNE SMITH: Yeah, well. Thank you.

CHAIRPERSON GENNARO: Sure. Next witness is Albert Appleton and [pause].

[Off mic]

CHAIRPERSON GENNARO: And following Mr. Appleton, we have Eric Goldstein from the NRDC, and Dusty Horwitt, is that right? Dusty Horwitt, of Environmental Working Group, will be the next panel. And, Mr. Appleton, thank you very much for being here. We've enjoyed our conversations on this topic and we very much look forward to what you have to say--I don't know how much--I don't know when you came in on the hearing, but [crosstalk]--

ALBERT APPLETON: I heard it all.

CHAIRPERSON GENNARO: What's that?

ALBERT APPLETON: I've heard it all.

CHAIRPERSON GENNARO: Okay. Okay.

ALBERT APPLETON: [Crosstalk]

CHAIRPERSON GENNARO: And I'll ask
Counsel to swear in a witness and then...

COMMITTEE CLERK: Please raise your
right hand. Commissioner, do you swear or affirm
to tell the whole truth, the whole truth, and
nothing but the truth today?

ALBERT APPLETON: Ex-Commissioner,
but yes I do.

CHAIRPERSON GENNARO: Okay. Well,
it's just, Al, I'd like to thank you for being
here. I'm very appreciative of how much of your
time and talent you're, you know, giving to this
issue. I remember working with you back in the
early 90s and we were trying to get that
Filtration Avoidance Determination, we wouldn't
have gotten it but for you and I certainly do
appreciate that, so great to have you here.

ALBERT APPLETON: Well, great to be
here. Jim, Councilman, I think, you know, ever
since we did the watershed program in the early
90s I've resisted virtually every attempt to
become this actively involved in it, but the

Marcellus gas shale represents such a threat to the watershed that I've come out of kind of quasi-retirement--if you can say flying all over the world consulting is quasi-retirement--to deal with this. The New York City Watershed is New York State's greatest infrastructure resource, it made New York City the capital of the country and then the world and it's one of the great success stories of government. And I think the most important function the Council can be doing here and is cheerleading and is pushing, it's prodding is we need a united New York City behind the protection of that watershed. And I heard some interesting quarrels [phonetic] this morning on tactics or what I think are tactics, but I don't think there's any doubt that both the Council and the Department of Environmental Protection, the city regard any surrender of the watershed protection program as unthinkable. The question we are all debating is what's the best way to go about doing this and I hope some of these comments will offer some insight. To begin with, I think it's very important that New York City not devote all of its efforts just to protecting its

watershed, that the safety of drinking water is a fundamental premise of all American public health and of the--of an environmentally and economically sustainable future. There's the Delaware River Basin Commission, which is an equally important water resource if lacking some of our developed programs, there's the Binghamton self-source aquifer, there are many water systems that serve very small areas. The important statement about drinking water is that drinking water is not an issue of balance. That is, there too many public statements about the Marcellus Shale that say we're going to balance the economic benefits of natural gas versus the environmental cost and we'll come up the middle, and that's kind of a standard 20th-century environmental dialogue. But that's not the right dialogue here, this is a public health issue. The foundation of American public health is no risk to drinking water is acceptable. Now the risk to drinking water that we are talking about here is very clear, the materials in the fracking fluids, whether it's a half a percent or 5%, which is the more standard industry figure, are highly toxic. Yes, there are

some surfecants. Yes, the industry could, and hopefully should, be trying to develop some benign, you know, polymer liquefying thing. The truth of the matter is they're using over 200 identified compounds with names like diesel oil, tuolamine [phonetic], various kinds of industrial chemicals and that these things pollute water in ways that you can't get it out. That is, there are a lot of statements by advocates of the Marcellus or people attempting to reassure people, well, this system is better. The problem is with these kinds of pollutants you can't just have a better system, you got to have a failsafe system because once these pollutants are in water sources, they're very hard to get out, look what happened to PCBs in the Hudson River. They bio-accumulate, they go into sediments. Standard filtration procedures don't get them out, standard, you know, industrial toxic waste treatments, which have never been done on a scale like this before--which we're talking about disposing the wastewater--they're highly expensive, they're not 100% reliable. I very much hope that the committee puts high on its list the

testimony of Pat Carullo, from the Damascus Concerned Citizens, in which he will provide you with a detailed description of Pittsburgh's experience with the pollution in the Monongahela River--it's very important that that story be more widely told and that you hear it. We have basically four sources of water pollution to worry about. There is, first of all, the issue of the fracking liquid left underground. The industry is saying that because of the geologic conditions in New York and Pennsylvania, that's actually really not a threat here because this material will be left so deep it would really never reach water bearing layers. That would be very welcome news if it's true, but there's still three levels of proof it has to go through. First of all, are the hydrological conditions that uniform across the system? Second, can we 100% rely on 100%, you know, adequate condition of these casings that pierce the aquifer layers, and third, will we have the enforcement resources to make sure one and two are right, nevertheless, they're followed by the industry. So, as they say, it would be very welcome news if that was true, but it's also true

that we don't know that that's the case yet and the science has got to be seen. The second source of these pollutants is spills of various kinds. The third source is disposal of the wastewater and the fourth threat is just the industrial-strength landscape with 20% of its land cleared, with roads, with car traffic, with disruption in community patterns, and the sheer volume of activity will be a threat to all of these concerns. So that the question with drinking water, even before we get to all of these things, is not that the protectors of drinking water have to prove that this stuff is harmful, the advocates of drilling in any place where it will impact drinking water, it is their burden to prove it is safe and, while they certainly have the right to make that attempt under our laws and our democracy, and certainly we want to spur the industry to engage with sustainability, rather than trying to get regulation done on the cheap, the truth of the matter is it's not clear to me that a moratorium any--it's not clear to me anymore the more I thought about it, that a moratorium is the right call because I basically

believe there is a moratorium. 'Cause I basically believe that the standard of practice in this industry is such that you cannot drill in any place that threatens the drinking water supply and that is with assuming the best conduct of the industry. 'Cause the only standard that will keep these pollutants out of the water, which as I said is the only effective protection strategy ,is the standard of perfection equivalent to that which we get in airline maintenance or clean tech management of, you know, the highest precision information chips. It has to be a no percent, not a 1%, not a half a percent, it has to be a no percent fail rate. Otherwise--even before we get to all of the other environmental issues, the community impacts, the endangered species, the congestion on the rural roads that were never meant for this kind of truck traffic, the taking of water out of the streams, drinking water basically has to be sacrosanct, and the only thing that has bothered me about some of the public statements, particularly about DEP is they seem to be assuming they have to prove that this is a danger. That's not the case, the industry has to

prove this is safe. I do not believe the industry at this point could legitimately permit anything in the watershed because, quite frankly, they couldn't meet the standard. And to the extent that we want to push that forward is--

CHAIRPERSON GENNARO: [Interposing]
What standard is that you said, just that--

ALBERT APPLETON: The standard of no impact on drinking water. That there's no--

CHAIRPERSON GENNARO: And that standard is set out where?

ALBERT APPLETON: That's a hundred years of American public health law, it's in the State Drinking Water Act, it's in the CDC stuff. I cannot tell you how many times I was told that when I was dealing with filtration. I mean, how can you prove the watershed protection, you know, will not allow increased risk to our drinking water supplies, and it's obvious common sense. A hundred years of American public health is built around it. That's why we filter most water systems. I mean, there are cities who said, well it's not really a big risk if we use unfiltered water, we'll catch it in time or this or that. I

mean, all but the five cities you referred to in the United States have filtered drinking water 'cause we have the standard of no risk for drinking water. And remember that filtering this stuff if it gets into our water is going to require extra special heavy-duty filtration. So when you talk about \$20 billion, that number may be high, but I can certainly write a scenario where it's right. Now, so [off mic] stress the pollutants really last, you got to approach this thing understanding that these current fracking materials persist in the environment. Now the industry says, although I think the industry is beginning to see reason on this issue that we can't disclose these materials. Clearly a simple way to solve that problem would be to specify what's in the fracking materials. And I think-- so, first of all I would eliminate the competitive attempt to race each other to buy the cheapest, you know, possible fracking materials and I think that's one of the things as we negotiate with the New York State Department of Environmental Commission and as we look at this issue in other states, we should begin to be looking at, that is,

if the key to the safety of these materials is the fracking materials, the industry should not be left to hide behind, quote, this is proprietary, and we can take that issue away by simply saying, and there's no doubt that the state would have the regulatory authority to do that, this is the kind of fracking material you would use, if you want to use an exception, make a specific permit application. Now I want to talk about regulation for a second. All of this stuff is good, but the EIS is good, the city's consultants is good, but if we do not have the regulatory infrastructure to enforce the result, it's just pious meetings and pieces of paper. You heard the acting DEP commissioner say there were 1,500 applications for wells in the last two years. Just to translate that into workload for a second, if you took six-- if you processed and approved six permits a day, it would take you a year to clear that entire permit volume. If we are going to get what the industry predicts, 20 to 50,000 applications ultimately for this, each application has to be reread, reviewed for compliance, analyzed for its hydrogeology, field checked for its operations,

looked at for its financial security, assessed for local impact. When I hear DEC talk about, well, we're going to deal with this permit or that permit as it comes up, I've got to say to myself, they have not yet begun to internalize the real scope of this development. That what we're looking at is the biggest thing to hit the Northeast since strip mining took out West Virginia and Eastern Kentucky. That now, you know, the economics are changing, the industry's got a certain interest in boosterism at this stage in the process, nevertheless that 1,500 number should give us a great deal of pause. It took us 600 people to organize the protection of the watershed properly. That 600 people we're dealing with 10% of an area the size of the Marcellus Shale. We're dealing with many less permit applications and with ultimately less complicated problem. So you can just do in your own mind the math of the kind of staff DEC should be building right now to deal with this problem. Now we all know that the State's got a \$14 billion budget deficit, we know that over in Pennsylvania our friends in the Delaware River Basin Watershed have

similar constraints. Where do we get the money to deal with this? We get the money through industry fees. That is, I would argue that DEC has the authority to impose such fees, but assuming they don't, that should be a top legislative priority for all of those who are concerned that shale drilling be done properly, that there be a proper regulatory staff funded and think for a minute what that means. It means we got to process the paperwork, we've got to first research the hydrogeology and then another we're right [phonetic], we've not only got to approve the proposed technology, we have to have quality control people on site. Many of these kinds--in business, you would have been--for many of these processes, you would actually have specific quality control people on site, you know, reviewing this. And, again, the industry will argue that maybe much of this can be done with self-regulation. That works in some areas, but it does not work in an area where you can't get back their mistake. With an area like this, with the fracking materials that are currently used, you can't get back mistakes. So it means you're going

to want to have your own people on site reviewing these critical procedures to make sure they're failsafe. As they say, nobody as far as I can see, neither the government of the Pennsylvania or New York State, has yet internalized this mammoth coming down. Now one of the things the committee is offered to do, and I hope other people in this audience will take advantage of it, is to submit any comments people have on the scope of the EIS to the EIS scoping people because they somehow decided New York City was not worthy of a hearing. I've given this committee--the one comment I want to make, given everyone else is involved, I want to draw this to people's attention because it's very important. At the same time we are trying to encourage natural gas production at Stadius [phonetic] and the Marcellus, and at the same time we're debating the issue of under regulation, which essentially is a form of subsidization, we are also trying in the state of New York to promote renewable energy use. What nobody has yet been thinking about and what we need to think a great deal about is how much environmental damage do we want to do to lower the cost of natural gas

so it will make it harder to make renewable power sources economic. That is, the state is in somewhat of a position, as the federal government is when it both subsidizes tobacco production and then decides to pay for the illnesses that smoking tobacco provides. Now I know there are many people who think, with some validity, that natural gas is a transition fuel, but quite frankly, it needs to be a very short transition. If anyone read the editorial in the New York Times this morning about what global warming is doing to the acid balance in the oceans, you would realize that carbon combustion is rapidly becoming our form of ecological suicide and that, while natural gas is certainly better than coal and probably better than oil, natural gas only is putting off the day of reckoning, it's not going to change it. The state needs to think long and hard about how natural gas fits into a long-term policy of trying to deal with global warming and are these kinds of prices we want to pay for fuel we ultimately want to stop using at some point in the future. Now I could just ask a couple of the technical questions, I heard someone say that this stuff can be used in

specialized wastewater plants, I want to stress again that nothing like the volumes of liquid that they're talking about here have ever gone through industrial wastewater treatment and that the discharge of that treatment is one of the main threats we have to, you know, the waters of the State of New York. Not only our beloved watershed, but other places. I also want to say in conclusion that--

CHAIRPERSON GENNARO: [Interposing]
I just want just get back to that other point for a second, if you could elaborate for the--myself and staff and the audience here, your point is that when you take these millions and millions of gallons of wastewater to a specialized treatment facility, it doesn't just go away, there is effluent from that that has to be discharged into some waterway, that's your point.

ALBERT APPLETON: That's exactly my point. The--and there you can spend--there are technologies that work at taking these things out, there's membrane technology. Traditional filtration technology separates this kind of filtration from the normal sewage treatment plant

1
2 filtration because these kinds of compounds are
3 easy what we used to say, you know, frying the
4 process, because the process is essentially based
5 on micro bacteria which don't like to munch very
6 much on tuolamine. The--so the--to the extent we
7 want natural gas and there--50 years from now,
8 what you're going to find is any natural gas used
9 in the world is used for fertilizer, which is a
10 whole separate environmental issue we're happily
11 not talking about today.

12 CHAIRPERSON GENNARO: Yes.

13 ALBERT APPLETON: It's up to the
14 industry to step up to the plate. I've not been
15 encouraged--and I know all the folks I talked to
16 about this--you've not been encouraged about
17 statements from the industry to Pennsylvania
18 authorities that we feel you're threatening to
19 over-regulate us and if that happens we'll leave
20 the state. The truth of the matter is in the
21 future, if we're going to get sustainability right
22 and being green right, we have to have our costs
23 right. And for regulation including the inclusion
24 of all the external costs of these kinds of things
25 as part of the future and the industry needs to

embrace that. They need to accept the fact that, for example, in Pennsylvania some people who wanted to, you know, find out if their well water had been polluted by gas drilling were told that they couldn't because there weren't baseline tests taken. So part of what we have to do is set up a procedure in areas where we're thinking about drilling, well those baseline tests will be taken as part of the fee structure for developing our regulatory process. We need to look at if there is--there are potentially harmless fracking materials, that could be done. We need to look at consolidating things like processing systems, road infrastructure, gas pipelines, and the order in which we drill. And last but not least, we need to look at this in an orderly way. These are huge planning tasks. The task you're trying to figure out the infrastructure in these rural areas to support something like this even in areas where it wasn't a threat to drinking water is huge. The idea we're going to do this through one EIS in New York and we're not even going to have an EIS in Pennsylvania and that the DRBC is still uncertain about what its obligations are, is amazing to me.

I mean this its the--and frankly the natural gas will be there. I mean, where we cut it--the only good thing coming out of the recession at the moment is the price for these concessions is sinking like a stone. We should take that as an opportunity and hopefully this consult will be another voice providing leadership and that to do all the kinds of long-term planning we need for this kind of procedure, 'cause if Green infrastructure is going to work, we can't think about this in 20th-century terms, we got to think about it in 21st-century terms. How we make it green from cradle to grave. How do we make it consistent with things like the quest for renewable energy sources? And if the--it would be my hope that the industry, which loves to run ads saying how clean burning natural gas is and how green we all want to be, would embrace this as an opportunity rather than see this as a threat, because that's really what we're talking about here. We're talking about having a sustainable future, protecting the assets like the watershed, we want to build on that and developing the new strategies and new policies that will get us

there.

CHAIRPERSON GENNARO: Well thank you, thank you, Al, and let me just go with some of the things that I have on my mind here. I mean, I've kind of limited my focus just to New York City's watershed, that's my, you know, jurisdiction, those are my bounds. And with regard to how we proceed here, I mean I've criticized the, you know, DEP for--well let me just back up one step before that, that's kind of like, two paths to go down, it's like, well we could preclude this kind of activity in New York City's drinking water supply watershed or we could work with the state and others to figure out how we can do this correctly, you know, within the bounds of the New York City water supply and I kind of criticized, you know, DEP for just kind of going down that second road, which kind of, you know, presupposes that there is a way to do this within the confines of the water supply and the impact that will have on the land acquisition program and the road building and fracking fluids and the potential harm that would come from heavy rain and a flood that overtook one of these

holding ponds or whatever and all of that. And I've kind of, you know, criticized them for just not trying to go down the other road that says this is inconsistent, that this kind of activity really shouldn't take place within the confines of an unfiltered surface water system and why aren't you using your regulatory might to the extent that DEP has it to figure out a way to kind of, you know, keep this out of the watershed, that, you know, that DEP ought to be sounding that alarm, DEP ought to be saying this really can't happen here and putting together like the body of knowledge necessary to make sure it doesn't happen. So am I--

ALBERT APPLETON: No, I--

CHAIRPERSON GENNARO: --in your opinion, am I on the right course here in telling them that they ought to be focusing on that?

ALBERT APPLETON: Well, I think they are focusing on that. I think, in a sense--I think you're definitely on the right course, let's start that way. We can never--I find it inconceivable that even if you could solve all the fracking issues--

CHAIRPERSON GENNARO: Right.

ALBERT APPLETON: --with fracking fluid, that the scope of this industrial development is--could in the least way be consistent with a pristine watershed. And let me just make one aside to the watershed, it is important to remember that the watershed was not placed there for developmental purposes of any kind, past, present, or future. The watershed was created by the state of New York in 1900--between 1902 and 1905 to make sure New York City continued to be economically and viable and livable. It made the decision to essentially give the city of New York special authority over that area and to set aside because in the immortal words of George Washington Plunkitt of Plunkitt of Tammany Hall, which I'm sure you'd probably appreciate more than anyone else in this room. All, you know, New York City is pie for the lords of Albany. They did not do it because they--they did it because they want to keep the goose that laid the golden egg, since we all know here every year New York, depending on who you talk to, sends 3 to \$10 billion of tax revenue upstate. So the suggestion that somehow

we have to bend over backwards to accommodate, you know, this highly destructive thing that would cost our water and rate [off mic] well over a billion dollars a year is ludicrous. That's, you know, this is the decision was made and the city of New York was built around it, that this area would be a preserved area. You know, lots of people, and I take great pride in my own role in this, have fought to keep that the case. So the suggestion that somehow we now have to make every effort to accommodate natural gas drilling in this area is, as I say, it's ludicrous. The--on the other hand, this is a democracy, it's perfectly feasible for people to try and prove a wrong and it is also in the terms of the way we make administrative law in the United States is important to build a record and we know we're going to get these attacks on us. So I look at this actually from a point of view a lot of confidence in the science that at the end of this debate, you know, people [off mic] are going to come to the only conclusion--same conclusion you've already come to, that there's only one way to do this and it's not only precluding it in New

York City Watershed, large, if not all of the sections of the DRBC, there's a lot--the industry is going to have to face the fact if this is done right, lot's of areas are going to be off limits to them and end of story. But as an ex-DEP Commissioner and who had to kind of live through is, and you recall, you know, the kind of baroque maneuverings you sometimes have to do to get through the, you know, American administrative law and special interests and get all of this done, I'm at this point--I'm in an awkward position because everyone wants you guys to go forward full speed, but on the other hand, we also want DEP to be out there as our champion. So we're kind of hoping that the most important theme and is not just what we're saying the DEP should be doing, but bringing the whole city together behind this, 'cause the power and authority and the political momentum of the whole city is going to be needed if you're right, and I have a lot of suspicion that you're not wrong, about where the state is coming from this area. So whether we like it or not, we're going to get in an argument that natural gas drilling is--can be made compatible

with the watershed. I think it's very important for us to start from the position that that's--you want to make that argument, fine, but you got the burden of proof. We don't have to prove this is bad for the watershed, you got to improve the impossible that somehow it's good and whether that means we announce in front you got to preclude this or we announce upfront it's already precluded. I mean, personally my view is there is a de facto moratorium 'cause they couldn't meet the standards for drilling in the watershed.

CHAIRPERSON GENNARO: Yeah, but you keep talking about the standards that are kind of--that have their roots in common sense or common law or whatever--

ALBERT APPLETON: [Interposing]
Well, we can get you some of the material--

CHAIRPERSON GENNARO: Yeah.

ALBERT APPLETON: --and I don't want to turn this into a lecture on administrative--

CHAIRPERSON GENNARO: Right.

ALBERT APPLETON: --law, but this is a public health issue, it's not just an environmental issue. You got to start from that

point--this is a public health issue first. The right--if DEC will have the right procedure, if they say we're going to take all of you guys through a two-threshold step, you first got to prove this is a no-harm thing for drinking water wherever it is and then we'll deal with--then we'll secondly deal with all of the other environmental and community--it's going to be a two-tier standard. But this is not just a balance, nobody comes and say well let's risk having 100,000 people get sick for the sake of lower natural gas prices. I mean, they may say let's risk, you know, killing four endangered species, you know, or let's risk, you know, ruining our forests, but no one to my knowledge has lately said, you know, let's risk poisoning 100,000 people 'cause we want to have American-made natural gas.

CHAIRPERSON GENNARO: Well then let me kind of follow-up and say that and so after I kind of, you know, chided them for, you know, playing like the state's game, like by the state's rules, and not providing the kind of leadership that I think they should be providing, I indicated

that they had at their disposal possibly the ability to do, you know, watershed rulemaking that would preclude this kind of thing. And do you think that that's something that I ought to be telling them that they should be doing?

ALBERT APPLETON: The question-- absolutely, the question is the timing. And the other thing though, if you're right about the state, we're in a bit of a trap because watershed rules have to be approved by the state. The first thing you'd want to do is to look at what the existing authority is. The, I think obviously, if we think we need it, we should go ahead and, you know, force the state to make the right call, but I think no stone should be left unturned--

CHAIRPERSON GENNARO: Right.

ALBERT APPLETON: --we also should be very well prepared for the obstacles in each of these courses.

CHAIRPERSON GENNARO: So what you're saying is perhaps it would be possible to interpret the current watershed rules and regulations that have already been signed off by the state as essentially tantamount to, you know,

precluding this kind of thing if they would interpret it in the right way.

ALBERT APPLETON: If those--well you don't have to interpret it in the right way, you just have to interpret in the obvious way. The watershed regulations if they deal with anything, deal with the discharge of pollutants in the streams, end of story. This is a pollutant, it's being discharged into our streams.

CHAIRPERSON GENNARO: So perhaps I should be telling DEP that they should read the watershed rules and regulations and their letters to Albany shouldn't be, we want a 1-mile buffer, we have a lot of concerns, it should be that, you know, we don't think that the existing regulatory structure would allow that and we fully intend to exercise our authority under these regulations to prohibit this.

ALBERT APPLETON: Well as an ex-Commissioner, I stay away from scripting my successors, but the--it's very clear that they should be encouraged to do everything they can in this context. The other thing I would say that I hope the DEP takes away from this hearing is the

watershed is, you know, it's not--the watershed is not like most towns where people have kind of this vague, you know, sense of where they get their water from, you know, they turn on the tap or something like that. The battle over saving the watershed and the creation of these, you know, partnership programs created a real civic awareness of the watershed which I very rarely see in any place else in the world. The watershed's a beloved thing now in New York City life and I think DEP should be aware that, you know, whether or not things that they're doing make sense to them on the whole, I think they do, they nevertheless need to share that more and bring the public and bring the Council and bring others more into the deliberation, more into their strategy, 'cause as I said, what I take away from the hearing and the job you're doing is we've got to get everyone in New York united behind us. We've got to create, you know, a political and an economic coalition and as a coalition we've got to--you know, I know you're just concerned with the rest of the state because I'm working on this issue in Pennsylvania too. I think the best

strategy for us is to extend our ports and authority to others who are in the same boat 'cause we don't want to be told, well if you're doing this--if you're not going to do this for us, you're not--you can't do it for New York City either, even though we have a special standing in the law. So I think we're having this quarrel with DEP over tactics and I think it should be-- continue to be a very robust debate and my own sense is the more, the better, but I think we-- even more importantly coming out of this hearing from my perspective would be to see the Council leading the charge for that kind of civic unity--

CHAIRPERSON GENNARO: Right.

ALBERT APPLETON: --and understanding.

CHAIRPERSON GENNARO: Now, and one thing that I also posited was the possibility that elements outside of DEP, but inside the administration, are thinking that perhaps with the city of New York as a landowner, why doesn't it, as a landowner, participate in what everyone else is doing and realize, you know, leasing revenues or whatever and--

ALBERT APPLETON: [Interposing]

Well, I note--having dealt with budget bureaus, yes. Well no comment, there are children and women present, I don't want to tell all those stories. Nevertheless, I [crosstalk]--

CHAIRPERSON GENNARO: [Interposing]

Would it be possible, would it be legally possible for the city to [crosstalk]--

ALBERT APPLETON: [Interposing] Well

I'm certain there's one analyst somewhere who probably thinks this is the greatest ideas since sliced bread, but everyone else is going to laugh him out of town and your question is a very good intuition because when you take land that has been condemned for a specific process and use it for a different process, like money making for natural gas, there is an argument--and we actually had a fight with the State Department of Transportation, some land they took from the city around Kensico, lo these many years ago, there is a very good argument, although it's unsettled law, that you have to give that land back or at least give that profit-making activity back to the person you originally took the land from. There is--

CHAIRPERSON GENNARO: But you purchased it. You purchased the--

ALBERT APPLETON: No, we condemned it, or we purchased it for a specific public purpose and our authority to take that land was based on that public purpose. If we use another purpose, even though--and the public purpose of raising money for government's a lot more tenuous than providing water or building--

CHAIRPERSON GENNARO: Right.

ALBERT APPLETON: --a bridge or making a park, there's a lot of--there's a lot of property law that says we have to give those proceeds back to the person we took the land from because if we hadn't taken the land from them--

CHAIRPERSON GENNARO: [Interposing]
But even in the willing buyer, willing seller arrangement.

ALBERT APPLETON: It was a willing buyer, willing seller arrangements done under a land-use permit, which the DEP has from the Department of Environmental Conservation--

CHAIRPERSON GENNARO: I see, okay.

ALBERT APPLETON: Okay?

CHAIRPERSON GENNARO: So that doesn't appear, in your view, to be a big worry that the city itself is going to attempt to realize natural gas revenues.

ALBERT APPLETON: No, I can't imagine that any responsible senior city official would even contemplate doing that. As I say, I've seen enough craziness out of budget bureaus to believe that--

CHAIRPERSON GENNARO: Okay.

ALBERT APPLETON: --some analyst could be capable of this, but there's a lot of other obstacles to it, too.

CHAIRPERSON GENNARO: I would just, again, I wasn't versed in it, I just speculated that [crosstalk]--

ALBERT APPLETON: [Interposing] No, I think it's a very fair question--

CHAIRPERSON GENNARO: Right.

ALBERT APPLETON: --given your experience in government, but I think in this one, we're reasonably okay.

CHAIRPERSON GENNARO: And I'm trying to think of what else I should... Yeah, that's

1
2 really all I had, but I just--and I certainly
3 appreciate everything that you're trying to do,
4 but it just gets a little lonely as, you know, as
5 many people who believe in this, but in terms of
6 public officials and elected officials is really
7 nobody else on this bandwagon.

8 ALBERT APPLETON: I agree with that
9 and I think the Council could do all of these
10 people--provide them some significant guidance,
11 but reminding them of all the people that are
12 coming out at this hearing today, all the people
13 who have been concerned elsewhere, the callings we
14 have in other parts of the state and in
15 Pennsylvania and that even if they're on the right
16 track, this is an important--this is an issue that
17 goes beyond kind of rational analysis, there's a
18 very happy and desirable emotional anxiety and
19 they should understand that and they should be
20 addressing it.

21 CHAIRPERSON GENNARO: Thank you,
22 thank you. Thank you, Mr. Appleton, I appreciate
23 your being here and thank you--well I call you Al,
24 but I, just for the record, you know, someone's
25 going to, you know, someone's going to read this

like 50 years from now and it's like Jim and Al,
like who are they, you know? And so [crosstalk]--

ALBERT APPLETON: [Interposing] We
should be so lucky. [Background noise]

MALE VOICE: [Crosstalk] Very well
be.

CHAIRPERSON GENNARO: Okay. Thank
you. Thank you, Al, appreciate it. And one thing
that Al mentioned during his--thank you, okay,
appreciate it, yeah, but... [Pause] Is that we
have been kind of designated as an entity for
people to submit scoping comments on the draft EIS
by virtue of the fact that people didn't have an
opportunity to have a hearing here in New York
City. Al gave us his comment, all the people that
have comments, if they want to submit to the state
for the EIS process, our committee's providing
that opportunity. And so let us call our next
panel, which I previously announced as Eric
Goldstein and Dusty Horwitt of the Environmental
Working Group. I would ask counsel to swear in
the panel, I have to leave the room for about 60
seconds and I'll be right back and--I'll be right
back, don't go anywhere.

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

ERIC GOLDSTEIN: I do.

DUSTY HORWITT: I do.

COMMITTEE CLERK: Okay. Thank you.

[Off mic]

ERIC GOLDSTEIN: Copies are on the chair, if you want to grab, with the tan coat.

MALE VOICE: Just need to get [off mic] get a lot more people like Gennaro on the case, we'll be okay.

[Off mic]

CHAIRPERSON GENNARO: Okay. Here we go. Okay. Thank you, sorry for the interruption-

ERIC GOLDSTEIN: Sure.

CHAIRPERSON GENNARO: --and thank you both for being here, appreciate working with you both. As always, and without further ado, why don't we hear from Eric Goldstein.

ERIC GOLDSTEIN: Thank you very much Mr. Chairman, and thanks for calling this very

important hearing. I also commend Commissioner Appleton for his excellent testimony. I'm going to summarize my comments today in view of the hour and will do so rather quickly. Every 5 or 10 years a public policy is entered into the public debates that's inherently ill-advised and so foolish that you say to yourself, what can the people who are advancing this concept be thinking. Hundreds, if not thousands, of individual gas wells drilled and pumped throughout the unfiltered New York City watershed, the nation's single largest water supply, and in other sensitive areas of New York state that provide drinking water to New York State residents--this is one of those ideas. And for that reason, NRDC affirms our grave reservations over the prospect of widespread industrial gas drilling in the New York City watershed and in other sensitive areas that provide drinking water to state residents. To be sure, we recognize the benefits of natural gas as a transition fuel and we believe it's possible to adopt new and sufficiently stringent regulatory standards that could allow gas drilling to move forward in some portions of the state, but before

a new gas drilling initiative advance in New York, they must be accompanied by enhanced environmental safeguards, careful oversight, vigorous enforcement of the laws and rules, and a sufficient staff that will be present, all of those questions still remain open. Most importantly, because of the special role they play in supplying public drinking water, there are certain areas of this state that must be placed off limits to industrial gas drilling and the Catskill Delaware Watershed, which provides drinking water to 9 million residents is one such area of exceptional ecological significance, where the risks inherent in industrial activities like gas drilling are simply too great and where the consequences of pollution would be too high. Three points to emphasize. First, industrial gas drilling is an inherently pollution generating activity. In the gas drilling process known as hydraulic fracturing, several million gallons of water mixed with sand and chemicals at high pressure are injected into each individual well deep underground so as to separate gas from shale. The process requires high volumes of water and

produces large amounts of contaminated fluids at the end of the drilling process. This presents problems both in terms of where the water is originally obtained from and what you do with the wastewater disposal, the fracking fluids once they reach the surface and then what happens to that percentage of the water that remains underground in watershed areas. We don't fully know what chemicals would be used in this process, but in other jurisdictions, arsenic, mercury, tylenol, xylene, hydrogen sulfide, low-level radioactive materials--these have all been found in the waste products from gas drilling. There have been problems in other states, in Pennsylvania, gas drilling operations have been advancing, but the environmental protection department there ordered two natural gas companies to suspend their operations for violating Pennsylvania's Clean Stream law. There's been a moratorium imposed in New Mexico because of concerns over protecting watershed aquifers. Hydraulic fracturing has resulted in water pollution problems in Alabama, Colorado, New Mexico, Virginia, West Virginia, and Wyoming, where residents have reported changes in

water quality or quantity following fracturing operations of gas wells. And so the burden needs to be on the drilling industry, as Commissioner Appleton has indicated, to demonstrate zero risk before drilling operations ought to be authorized where drinking--public drinking water supplies are concerned and that is an impossible standard for them to meet. Therefore, the conclusion is clear, in areas involving public drinking water supplies, let alone areas of an unfiltered drinking water supply, drilling activities are inconsistent with public health protection. Second, there is not a single large unfiltered water supply in the United States that allows industrial gas drilling operations within its watershed. As you know, there are five other systems--San Francisco, Portland, Oregon, Seattle, and Boston--NRDC has recently surveyed water providers for all four of those cities and has confirmed that not one allows gas drilling activities to take place within watershed boundaries. San Francisco, Portland, and Seattle own or control virtually their entire watershed lands and do not engage in or allow industrial activities to take place on them and,

as for Boston, which, like New York, has a residential population living within its watershed region, state laws, regulations, and policies effectively prohibit industrial gas drilling operations. This is no coincidence. Municipal water providers around the nation recognize the inherent risk that widespread industrial activity prevents to unfiltered drinking water supplies. In short, the industrial gas drilling proposal challenges the very heart of New York City's watershed protection program and the Filtration Avoidance Determinations we've secured since the early 1990s. The heart and center of those programs has been pollution prevention, keeping pollution out of the water supply in the first place, rather than trying to clean it up at the end of the line. Final point, New York City has authority under state law to prohibit industrial gas drilling within its watershed boundaries. The state Public Health Law Section 1100 authorizes the city's Commissioner of Environmental Protection to adopt rules and regulations, which are subject to state approval, designed, quote, for the protection from contamination of any or

all public supplies of potable waters and their sources. In other words, New York City already has authority either in its existing rules or at least under state health law that would allow it to prohibit gas drilling activities. We severely regulate sewage discharges, we regulate run off, we regulate other kinds of contamination and to think that we could not regulate and prohibit gas drilling activities in an unfiltered watershed, I think is an incorrect reading of our state law.

Nevertheless, we believe that the ultimate responsibility to safeguard the state's drinking water supplies from dangers and risks posed by industrial gas drilling falls on Governor David Paterson. Mayor Bloomberg and the city should make clear in no uncertain terms that industrial gas drilling poses unacceptable risks to the downstate water supply and that they will use all of their authority under current law to protect the Catskill and Delaware Watershed and Governor Paterson and his Departments of Environmental Conservation and Departments of Health need to complete their ongoing environmental review and create a protective shield around the drinking

1
2 water supplies in this state so as to safeguard
3 those special resources from industrial gas
4 drilling activities. Ultimately, New York City's
5 public water supply is probably its single
6 greatest capital asset. Industrial gas drilling
7 has quickly become the single largest pollution
8 threat to this water supply and it's inconceivable
9 that state and city officials would want to
10 jeopardize the long-term safety of this priceless
11 and irreplaceable system for short-term gains
12 associated with industrial gas drilling on
13 watershed lands. Clean drinking water is a
14 fundamental human right and if ever there is an
15 issue that cries out for government action to
16 safeguard that right, it's the prospect of
17 industrial gas drilling in the city's watershed
18 and on other critical drinking water lands. Thank
19 you for your attention.

20 CHAIRPERSON GENNARO: Thank you,
21 thank you, Eric, I appreciate your statement and I
22 have, you know, questions and comments, but will
23 hear first from Mr. Horwitt and then I'll do
24 questions for both of you at that time. Thank
25 you, Mr. Horwitt, I appreciate your being here.

DUSTY HORWITT: Thank you, Mr. Chairman, for this opportunity to testify. My name is Dusty Horwitt, I'm a senior analyst for public lands at Environmental Working Group. We're a nonprofit research and advocacy organization based in Washington, DC, and Oakland, California. For the last several years, we've been tracking a virtually unprecedented increase in drilling in the western United States. And as part of this work we've investigated the process that is the subject of today's hearing pioneered by Halliburton, hydraulic fracturing. Earlier this year, we worked with Theo Colborn, a noted scientist in Paonia, Colorado--she and her colleagues have identified dozens of chemicals used by the natural gas industry including in hydraulic fracturing. We found that at least 65 of those chemicals used by natural gas companies in Colorado are listed or regulated as hazardous under six different federal laws, including the Clean Air Act, Clean Water Act, and Superfund. I'd like to add to the testimony I presented in September by making a few comments on the draft scope document that the DEC recently prepared.

We've reviewed the document and we feel that the DEC is underestimating the risks to New York City's drinking water supply and the risk to drinking water supplies and the rest of the state. The DEC echoes what industry said recently in saying that there's no record of water contamination in New York State from hydraulic fracturing. It may be true that there is no record, but that doesn't mean that contamination has not occurred. The state doesn't say how diligently they've investigated whether contamination has occurred or whether they've tried and they don't mention that they have documents from other entities. We think that they should disclose that evidence if it exists and we'd like to ask them ourselves to disclose that evidence. In addition, we have concerns about their staff and resources to conduct these types of investigations. I recall that Speaker Quinn at the last hearing in September noted that there were 19 inspectors for 14,000 gas wells across the state, that those numbers don't inspire confidence as far as being able to track the effects of hydraulic fracturing. The EPA itself has recently

said in Colorado in a front-page story in the Denver Post that they cannot be sure what the effects of hydraulic fracturing are on drinking water supplies, because they simply don't know what chemicals the companies are using and that's, you know, the same case all across the country, the companies are not required to disclose what chemicals they're using in fracturing. What we do know is that hydraulic fracturing is used in 90% of all oil and gas wells drilled and it has been recently been associated with water contamination and serious illness. The Bureau of Land Management, which is the agency that tracks or supervises drilling for oil and natural gas on federal land found this summer that water in Sublette County Wyoming was contaminated with benzene, which we heard about earlier, benzene is extremely toxic even in--at very low levels, its associated with cancer, nervous system disorders. Sublette County happens to be one of the most intensively drilled areas in the country. We found that under the Bush Administration alone, there are about 2,300 wells have been drilled in Sublette County, there is 6,000 wells operating

there, and, of course, we've heard that there may be thousands of wells drilled here in New York. What makes this situation particularly alarming is that Sublette County is a very rural area, so there really aren't any other likely sources of benzene contamination in the water aside from natural gas drilling. And we know that benzene is used in fracturing fluid, it's also found in condensate which is produced along with natural gas, so that's cause for concern. There was also the incident earlier this year in Durango, Colorado, which I mentioned in September, a nurse treated a natural gas field worker who had hydraulic fracturing fluids spilled on him. A couple days later after treating this worker and coming into contact with this fluid, the nurse became gravely ill. She suffered from respiratory system failure, heart failure, liver failure, and as she was near death, her doctor called up the hydraulic fracturing fluid company and said tell me what's in this fluid and the company said, sorry, we can't that's confidential business information, so the doctor had to guess how to treat his patient and, fortunately, he guessed

right, because she survived. And finally we had an incident in 2004 in Garfield County, Colorado, where residents noticed some strange bubbles in the creek near their homes. Turned out that an improperly cemented natural gas well nearby, 3,500 feet away, had contaminated their water with benzene and other toxics, they had to drink bottled water and the company in Canada, a Canadian firm, was fined a record amount by the state oil and gas conservation commission. This is an example of how, even when they're doing things underground, the contaminants can come up and contaminate surface water. We have a few recommendations. You know, we continue to believe as we did in September that because of the risks of contamination inherent in, not only hydraulic fracturing, but many steps along the way in the natural gas drilling process, that there should be no drilling allowed in New York City's watershed. We also urged the state to hold at least one hearing on the drafts scope in New York City--

CHAIRPERSON GENNARO: [Interposing]

Yeah, I don't think that's going to happen. Yeah.

DUSTY HORWITT: --and we would urge

the state to require disclosure of the chemicals used in hydraulic fracturing and the rest of the natural gas drilling process, not just to state officials as the draft scope suggests, but to the general public. And, finally, we think that, assuming the chemicals are disclosed, the state should conduct its own tests of water supplies to find out if hydraulic fracturing has contaminated water, and we feel that the industry should pay for those tests. And I appreciate the opportunity to testify.

CHAIRPERSON GENNARO: Thank you, thank you, thank you, Mr. Horwitt, I appreciate it. Now, Eric, I'm trying to figure out how to navigate here and I've called upon DEP to take a totally different approach to, you know, make the case that this activity shouldn't even happen within the confines of the watershed and that they should develop rules and you made reference to the type of authority that they have to do that. But Al Appleton kind of posited though notion that maybe the rules as written now may be sufficient to preclude this kind of activity. Did your reading of the rules--is it possible [crosstalk]--

ERIC GOLDSTEIN: [Interposing] I would hesitate to do disagree with--

CHAIRPERSON GENNARO: Right.

ERIC GOLDSTEIN: --such a distinguished testimony as that presented by Commissioner Appleton and one could read the general prohibitions in the existing rules as adequate to address this. It would be a strategic decision--

CHAIRPERSON GENNARO: [Interposing] Because I'm just kind of trying to figure out like what--I mean we all know we don't want this to happen and we all get it, but I have to plot strategy here and I don't know, I want to get to my goal and that's a tack that we can take, then I want to know what you think about that.

ERIC GOLDSTEIN: NRDC's position is that it does make sense for this city to move forward with its consulting study and build a record for, what would ultimately be a prohibition on drilling activity in the watershed--dealing with just New York City for the moment.

CHAIRPERSON GENNARO: Right.

ERIC GOLDSTEIN: One could envision

a separate New York City rulemaking proceeding following the city's analysis and consulting work that it began in 2009 and specifically prohibited gas drilling activities within the watershed and then having an administrative record on that, give every side an opportunity to come in and testify, but ultimately. as Commissioner Appleton has indicated, the burden is not on the city to demonstrate that somehow this activity could be done with a minimum level of risk. The requirements in the Filtration Avoidance Determination, the requirements in the Safe Drinking Water Act, essentially require that these activities not endanger public health or present risks that would trigger a filtration determination. And if they do, then the city faces a very stark choice, which is, are you going to filter or not, and as, again, as Commissioner Appleton has indicated, traditional filtration equipment is not designed to remove these kinds of hydrocarbons and other chemical contaminants. So it's a very difficult road to see if one could establish that this activity would in fact, be safe. We believe the city has authority and could

go through a process that demonstrates that these activities have inherently proven to be risky in other areas and that that is a risk that the city does not want to undertake. And one way of addressing this would be for the city to establish through additional regulations that gas drilling activities would be prohibited. One could also argue that the existing regulatory scheme already prohibits that kind of contact, since it talks generally about contamination. It is likely that that would be challenged and it's a strategic decision as to whether you want to have the city build up its own administrative record specifically dealing with the health and threats and consequences of gas drilling or you want to rest on the existing regulatory structure. Our recommendation would be that you seriously consider strengthening and building up that administrative record first because there will be a legal challenge to it. Separate and apart from that, the state's process is another opportunity for the state to set aside drinking water areas as protected zones, which would include the New York City water supply and other watershed areas that

provide drinking water to New York State residents. Those areas too face similar risks and, again, why you would want to take an inherently dangerous process like this and subject a public drinking water supply to this risk, it just--it boggles the mind that that is being considered now.

CHAIRPERSON GENNARO: I see, I see.

Or--

ERIC GOLDSTEIN: Well, you see and you understand.

CHAIRPERSON GENNARO: Right, but the--

ERIC GOLDSTEIN: So I guess what--to answer your--

CHAIRPERSON GENNARO: [Interposing]
I'm just trying to think about we've got the--you know, we've got the consultant coming on and one thing that the consultant could do is to establish, you know, scientifically and, you know, convincingly that this is a threat and, therefore, the existing rules, which currently, you know, prohibit such threats would suffice and so that would be the work that we could--that would be

used to support a legal challenge to that
assertion?

ERIC GOLDSTEIN: Again, I would like
to take your question back and analyze it more
fully. My initial reaction is that existing
regulatory authority provides a general authority
for the city to act--

CHAIRPERSON GENNARO: Right.

ERIC GOLDSTEIN: --but since we know
it would be subject to a likely legal challenge,
the city would benefit from buttressing the
administrative record to demonstrate the facts--
let the facts speak for themselves. Look at
what's happened throughout the nation and you will
see--

CHAIRPERSON GENNARO: Yeah, right.

ERIC GOLDSTEIN: --that industrial
gas drilling, if you're going to put hundreds or
thousands of gas drills throughout the unfiltered
water supply, you're going to have pollution
problems, we're confident that the record would
show that. We think that the city might well be
advised to develop that record and then
specifically prohibit gas drilling for that

reason, based upon that record.

CHAIRPERSON GENNARO: Right. Okay.
Yeah, I'm just trying to figure out the course
that that we would take and--

ERIC GOLDSTEIN: [Interposing] So,
in other words, we believe that the city and state
are heading in the right direction, but they're
not yet there and they haven't yet reached the
determinations that many of us in the
environmental community have reached and that you
have reached and that the analysis and the choice
that you posed earlier, we could seek to find a
way in which this is done that minimizes harm or
we could preclude the activity--

CHAIRPERSON GENNARO: Right, right,
right.

ERIC GOLDSTEIN: --we believe we
need to preclude the activity and we need to work
with the city and state to get them in the
position to accomplish that. Thank you.

CHAIRPERSON GENNARO: Thank you, I
appreciate that and both of your statements are
helpful and we look forward to continuing to work
with you and see if you run up against any other

elected officials try, you know, try to get them on board, you know? It's--but we'll get there, we'll get there. Thanks, appreciate it very much.

ERIC GOLDSTEIN: Thank you, Mr. Chairman.

CHAIRPERSON GENNARO: And our next--

[Pause]

FEMALE VOICE: She's the one that came down last time [crosstalk]--

CHAIRPERSON GENNARO: She from the environmental group? She from--

[Off mic]

FEMALE VOICE: Yeah, she's with the Catskill Mountainkeeper--

CHAIRPERSON GENNARO: Okay. And so she's the representative?

FEMALE VOICE: We have--

[Pause]

[Off mic]

CHAIRPERSON GENNARO: Okay. Okay. The next panel is Stuart Root of the Catskill Mountainkeeper; Ramsay Adams, also of Catskill Mountainkeeper; and Kate Marsiglio and Dan Marsiglio, who we'll put on that same panel.

SERGEANT AT ARMS: Step forward,
your name's been called.

[Off mic]

KATE MARSIGLIO: I don't have the
comments.

SERGEANT AT ARMS: Don't worry,
don't worry, it's no big deal. If you have them,
you have them, if you don't, you don't.

MALE VOICE: Hi.

KATE MARSIGLIO: Good to see you
again.

MALE VOICE: Always a pleasure.

KATE MARSIGLIO: Yeah, go ahead, go
ahead and sit down and I'll stand.

MALE VOICE: Okay.

CHAIRPERSON GENNARO: And the panel
after this will be representatives of Damascus
Citizens. And we'll--

[Off mic]

CHAIRPERSON GENNARO: Okay. We're
joined by Council Member Koppell, happy to have
Oliver with us.

COUNCIL MEMBER KOPPELL: I'm sorry,
Mr. Chairman, it was mis-scheduled on my schedule,

that's why I'm so late.

CHAIRPERSON GENNARO: Oh [background noise]

COUNCIL MEMBER KOPPELL: [Off mic]

CHAIRPERSON GENNARO: Okay. Okay. Sorry about that, but [crosstalk]--

COUNCIL MEMBER KOPPELL: But I'm here now.

CHAIRPERSON GENNARO: --there's lot more to come and the counsel will swear the panel. So [crosstalk]--

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

MALE VOICE: I do.

DAN MARSIGLIO: I do.

KATE MARSIGLIO: I do.

CHAIRPERSON GENNARO: Okay. I have one statement from the Catskill Mountainkeeper, Ramsay Adams, why don't we start with Mr. Adams?.

RAMSAY ADAMS: Thank you, Mr. Chairman, for having us and we're glad to be able to submit testimony at this hearing today.

Catskill Mountainkeeper is an advocacy group that's dedicated to protecting the six counties of the Catskills, that includes the entire New York City drinking watershed, as well as the park and I want to make sure that the Catskill Park is put on the record here today as part of what is very important to New York City and to you as a representative of the people of New York. We need to protect the park, it is the backyard for New York City and provides the future for the [crosstalk]--

CHAIRPERSON GENNARO: Sure.

RAMSAY ADAMS: --city so it's very important to think about the park separately for what it is, separate just from the drinking [crosstalk]--

CHAIRPERSON GENNARO: [Interposing] Right, but just--and I certainly--but I'm here, as you know, in my capacity, not as a park advocate, but as a steward of the New York City drinking water supply and that's how I delineate my responsibility and that is the focus of this hearing and--

RAMSAY ADAMS: Absolutely.

CHAIRPERSON GENNARO: --things that bear specifically on the drinking water supply of the city of New York, I'm happy to entertain testimony that you have in that regard.

RAMSAY ADAMS: Right, the cumulative impacts of natural gas drilling on the water supply are what concerns me the most in that when the DEC looks at natural gas drilling and what the threshold is for their scoping, at what point that process is--that document is no longer valid, because there's too many well sites and I, you know, I think that happens pretty quickly. You talk about 500 wells or 1,000 wells, that's one thing, you're talking about tens of thousands of wells, that's quite another thing. And we believe that in order for this play to be financially viable for the industry, we're talking about many thousands of wells and that the cumulative impacts of this are what needs to be considered and the scoping document and Generic Environmental Impact Statement from the 80s are woefully inadequate and so we are very concerned and disappointed in the draft scoping document, we don't believe that at this stage the cumulative impacts are anywhere

1
2 nearly considered. Another very important piece
3 of this is the full disclosure of the actual
4 chemicals and not the trade names, I mean
5 [crosstalk]--

6 CHAIRPERSON GENNARO: Right.

7 RAMSAY ADAMS: --we're going to get
8 is a list of trade names of chemicals and say,
9 here they are these are the chemicals, but they,
10 you know, that's not the actual chemicals and the
11 amount of chemicals that they're using and we've
12 gotten verbal commitments from people in the state
13 that they will give us the names of the chemicals
14 that they're using, but until we're actually nail
15 that down with your help, we'll make sure that, if
16 they drill, we know exactly what the chemicals are
17 and the makeup and then this trade secret stuff is
18 done with. And thirdly, I think a very important
19 thing that I've come to understand and I could be
20 corrected, is that the leases that the city holds
21 on--the easements that the city holds on land
22 within the watershed does not include water and
23 water withdrawal. It's an amazing fact, if that's
24 true, that in the easement work that's been done
25 over the years, the actual water itself isn't part

of the easement, there's development rights that are held, there's other rights that are held, but the water rights are not and that to me is something that needs to be looked at very carefully, especially when we know that it's between 3 and 5 million gallons of water per well that it would take to drill these things and then where's that water going to come from? They're not going to truck it all in from someplace else, so--

CHAIRPERSON GENNARO: Duly noted.

Staff will look into that, we appreciate--

RAMSAY ADAMS: [Interposing] So we've submitted some written testimony today, most of this has been covered, excellent testimonies by Al Appelton and then NRDC and others and so I don't want to take up a lot of the time today, but I wanted to make sure those points are on the record.

CHAIRPERSON GENNARO: Thank you, thank you, yeah I'm reluctant to sort of go to the dreaded clock, you know what I mean? And--but and if keep people keep their comments, maybe we can avoid the clock, but we have a lot of witnesses.

And thank you for keeping your testimony concise.

And okay, wait a minute [off mic] Oh, Mr. Root is that--

STUART ROOT: Yes.

CHAIRPERSON GENNARO: Okay.

STUART ROOT: Thank you, Chairman, thank you for [crosstalk]--

CHAIRPERSON GENNARO: [Interposing] Please--two things, please state your name for the record, make sure you're talking directly into the microphone just like I'm talking.

[Off mic]

STUART ROOT: Good afternoon, Mr. Chairman, my name is Stuart Root, I'm a lawyer in upstate New York and I do a lot of consulting work with different organizations, Catskill Mountainkeeper is one of them. I also have worked extensively with the Sullivan County Planning Commission and I think I've done probably more work on identifying the specific leases in Sullivan County and Delaware County. I have here a compilation of that, there's 30 pages and the net figures are that 36,258 acres that are under lease and that using 40 acres for potential dwell

site leaves you with nine--about 9,000 potential
 dwell site--drilling sites in that area. An
 amendment to the DEP's testimony, my recollection
 is that I found leases astride, both the
 Cannonsville Reservoir and the Pepacton Reservoir,
 in Colchester and Andes with potential toxic
 overflow affects, particularly when you consider
 the--

CHAIRPERSON GENNARO: [Interposing]
 When you say astride, what do you mean astride?

STUART ROOT: Well within 1,000
 feet.

CHAIRPERSON GENNARO: And these are
 private properties.

STUART ROOT: Yes.

CHAIRPERSON GENNARO: That are
 within 1,000 feet of these reservoirs.

STUART ROOT: Yes, that's right.
 And the--at your last hearing, why Bruce Ferguson
 provided a map I think that I had prepared that
 showed those sites.

CHAIRPERSON GENNARO: Oh, I see.
 Okay.

STUART ROOT: All right? And he had

referred to me as the source of those maps.

CHAIRPERSON GENNARO: Okay.

STUART ROOT: And if you're familiar with the potential washouts for the floods that we've had up in that area, you can see that if a storm can take out a house, kill two people at one time, they can certainly take away a pond--

CHAIRPERSON GENNARO: Sure.

STUART ROOT: --all right? With all the toxicity that's there. Turning now to Ramsay's point about the cumulative impact, why, as you may recall, Governor Paterson required cumulative impact--

CHAIRPERSON GENNARO: [Interposing] Once again, I'm going to ask you to speak right into the mic, just rather, just one mic--just move it towards you, sir, you just move it towards you, just use one and just move it towards you. Okay?

STUART ROOT: Fine, I'm very self-effacing. You may recall that Governor Paterson required the cumulative impact be assessed in connection with applications, 36,000 acres as--to reinforce Ramsay's point--kind of beggars belief that there can't be a cumulative impact that will

pass the smell test. However, at the assembly hearings in Albany in October, the DEC said that each application was going to be considered individually. Well considering it each individually is a negation, I think, of cumulative impact and I think that's an issue that's got to be very carefully [crosstalk]--

CHAIRPERSON GENNARO: [Interposing]
I see, thank you for bringing that up and so staff is making note of that as well.

STUART ROOT: Thank you.

CHAIRPERSON GENNARO: Sure,
appreciate that. Thank you. And thank you for being concise.

STUART ROOT: It's not my style.

CHAIRPERSON GENNARO: Okay. Mr.
Marsiglio, I presume.

DAN MARSIGLIO: Yes.

CHAIRPERSON GENNARO: Okay.

DAN MARSIGLIO: Thanks, Mr.
Chairman. My wife Kate and I are here--

CHAIRPERSON GENNARO: [Interposing]
Sure, just state your name for the record.

DAN MARSIGLIO: My name is Dan

Marsiglio, my wife Catherine Marsiglio, we're here representing residents of the upstate watershed region. We are organic livestock farmers and gardeners in a town called Walton, New York, and I'm wearing my Catskill Pride had here today.

CHAIRPERSON GENNARO: Let the record note that.

DAN MARSIGLIO: Very prideful.

CHAIRPERSON GENNARO: That the cap says, what Catskills?

DAN MARSIGLIO: Pure Catskills is a-

-

CHAIRPERSON GENNARO: Oh, Pure Catskills.

DAN MARSIGLIO: --selling--buying and selling of organic and some non-organic products that come from the Catskill region down to various markets in New York City and--

CHAIRPERSON GENNARO: Right.

DAN MARSIGLIO: --surrounding region. And I'm very happy to hear that you're looking for a strategy help on this, it's what-- when we were here in September I believe, that that was not necessarily your focus at that time.

I'm very happy to hear that that is the focus now, or at least that's the stated focus that you're looking for strategy and I think that we can help from a different perspective in that regard. As I said we're farmers in the area and we're very concerned about our water, about the water that runs by our house and our farm and that our children swim in and that we drink from our hundred plus-year-old spring that has been perfect and pure as far back as anyone can remember. And I also want to speak on behalf of the people who are not in the watershed area who also deserve equally clean water, and I would hope that they don't get lost in this--

CHAIRPERSON GENNARO: Right.

DAN MARSIGLIO: --as we move beyond--
-

CHAIRPERSON GENNARO: Right.

DAN MARSIGLIO: --the watershed
area.

CHAIRPERSON GENNARO: Duly noted,
not my jurisdiction, but duly noted right.

DAN MARSIGLIO: So just briefly, I
was listening to the BBC on the way here today and

I listened to a report about Zimbabwe's cholera epidemic that is growing to tens of thousands, they're estimating 60,000 people and the expert who was being interviewed on the BBC spoke matter-of-factly that this epidemic could be curtailed if only they had clean drinking water--that is the only requirement for a--for an industrialized or, you know, what's called a in quote civilized nation to prevent a cholera epidemic, it's a impactful concept. So to the point of strategy. We are members of the Watershed Agricultural Council's Farm Improvement Program, part of that program requires us to meet certain standards to continue farming in a way that is the least impactful on the--

CHAIRPERSON GENNARO: Right.

DAN MARSIGLIO: --New York City water supply. To give you an example of some of the requirements that we are going to meet in order to be provided with assistance.

CHAIRPERSON GENNARO: [Interposing]
I'm aware of the type of things that you have to meet.

DAN MARSIGLIO: Yeah. Simple things

like keeping our single cow from walking across a stream.

CHAIRPERSON GENNARO: Right.

DAN MARSIGLIO: Moving our compost pile 20 feet up above the top of a hill so that runoff from, you know, a pile that is probably six or 7 cubic yards of material to meet the requirements to receive assistance, just to give you an idea--

CHAIRPERSON GENNARO: Right.

DAN MARSIGLIO: --of, and as you probably know, what is required for farmers to be in compliance to not damage this valuable resource. And I think that's an important place to look for just general standards that--I was speaking with the head of the Watershed Agricultural Office in Delhi--

[Off mic]

DAN MARSIGLIO: --Tom O'Brien, yep, and I made a statement to him and I'll make the statement now and I think it's, again, it's an important alliance, even though they're not necessarily an ally in your efforts, sir, but in looking at what's reasonable, what's reasonable to

do and I made the statement to him that this effort to begin drilling in that watershed area has the ability to render moot every one of those millions and millions of dollars that have been spent over the last--since 1990 or '91 to keep this water clean. And I believe that, I believe that the first dozen or so wells that go in make that effort--it renders that obsolete, that concept.

CHAIRPERSON GENNARO: I agree.

DAN MARSIGLIO: And I think we agree. So I think it's important to look at those standards and also to--I wanted to offer continued support in your effort by saying that when we left our farm this morning with our kids at about seven o'clock, we were experience a moderate rain storm on top of three or four inches of freshly fallen snow. Our creek, in my--by my rough calculations, just with that simple runoff has swollen to probably 1,000 times its normal capacity and it's just--and I think that the pictures of that which I will post on our website and I'll make sure that you have our website with our testimony--I think are very impactful. People, you know, boots on

the ground as they say, we're on the ground and we're living this every day and we recognize just how impactful the movement of water can be on our farm--

CHAIRPERSON GENNARO: Right.

DAN MARSIGLIO: --and how much material, as it's been stated before, and then the previous testimony. So I think--and we'll make those pictures and video available, I have video of the '96 flood, of the 2006 flood as well, and I'll post those on our website as well. Just to-- just if someone wants a visual of what it really is--

CHAIRPERSON GENNARO: Right.

DAN MARSIGLIO: --like up there and how the water moves and I think I'll leave it there and let my wife--she has an important testimony to give from a--just a very brief testimony--

CHAIRPERSON GENNARO: Okay.

DAN MARSIGLIO: --and we can submit it in writing. I would like her to be able to speak as well.

CHAIRPERSON GENNARO: Okay. I just

want to--I just--

DAN MARSIGLIO: Okay.

CHAIRPERSON GENNARO: --have an imperative to sort of move the hearing along, we're going to have to go to the clock after this panel, it's just there's no way out of it. So we'll do the clock--

DAN MARSIGLIO: Okay.

CHAIRPERSON GENNARO: --after this panel, I'm sorry, I tried, you know.

DAN MARSIGLIO: Okay. So in terms of--

CHAIRPERSON GENNARO: Please, please.

DAN MARSIGLIO: --strategic effort, that's--

CHAIRPERSON GENNARO: Sure.

DAN MARSIGLIO: --that's what we have to offer from [crosstalk]--

CHAIRPERSON GENNARO: Sure. No, I certainly appreciate it and I don't appear to be-- I don't wish to appear to be, I'm just trying to get everybody in.

KATE MARSIGLIO: I promise, I'm just

going to speak from my paper, because I
[crosstalk]--

CHAIRPERSON GENNARO: [Interposing]
Just state your name for the record, please. And
then you may proceed.

KATE MARSIGLIO: My name for the
record is Kate Marsiglio. The name of our farm is
Stony Creek Farm and I don't come to you today,
Mr. Chairman with any numbers, I come with a
different perspective. I speak to you today first
and foremost as a mother and my simple request is
what all mothers want: better world for my
children and I hear you today after that, you're
on that path. The act of birthing a child with it
brings a hope for a better tomorrow. As a mother,
you give the world your child and in the same
instant, you give your child the world. No mother
wants to give her child a world filled with
pollution and poison. She wants to give her child
a world filled with the promise of clean air and
water and the beauty of the natural world.
Mothers who are busy with the work of nurturing
and raising children at home look to our lawmakers
to help us protect and nurture the world our

children will grow into. As a mother, I'm always looking into the future and so I ask you, do you have children? Do you have grandchildren? What do you want for them? Do you want to leave them a landscape that has been scarred by wells, open sludge pits, and water they cannot drink? This is a world that is left behind after any single resource mining operation takes place, such as horizontal fracturing. I'd like to give my children the chance to watch their children catching frogs, pulling carrots from the soil and swimming in a creek--all things that my children now do on our farm in the Catskills. I understand that I bring no numbers or spreadsheets to share with you, I have done no scientific studies, nor gained a Ph.D. for my great knowledge of a certain discipline. I'm trying to bring to light a different side of the issue--a side too often forgotten in these halls, but always present in my house: my children. After reading the 45 page scope document completed by the state DEC, it was clear to me that we are still only examining things that can be quantified or measured. While I understand numbers and science are our current

limitations, I believe that it is time we begin to look at things in a new light before it is too late. Clean water is our most precious natural resource, more precious than oil or gas. How can we say that this drilling does not threaten our clean water and air and soil? Anyone who has followed the stories of resource extraction here in the United States down in the south, out west, be it coal, oil, or gas were familiar with the tragedies and horrors that occur again and again. In every state that has had oil and gas drilling, there have been ruptures, leaks, even explosions, that have led to contamination of water supplies and personal property. The drilling process alone will take between 2 to 9 million gallons of water and then water that is highly toxic once it returns to the surface. Anyone who works and lives on the land understands the ecosystem is a whole system with only one rule: everything is connected. We cannot allow ourselves to dream that there is some way to extract gas from deep within the rocks without the rest of the system suffering the consequences. Already one-sixth of the world's population, a billion people, have no

access to clean drinking water. Do we really want to endanger our pristine water supply to extract a natural resource that brings a limited amount of energy to our country? Is any amount of energy worth such horrific consequences? The Iroquois had a law which said, in our every deliberation, we must consider the impact of our decisions on the next seven generations. It is time for the people of America to put our heads together and imagine ourselves seven generations into the future, not two years of oil and gas for the United States. How will our great-great-great-great-great-grandchildren heat their homes? How will they get to work, obtain their food and water? How many of us really think that any of the answers to these questions is oil and gas? I left my farmstead to come here today to implore you, members of the Committee for Environmental Protection, Mr. Chairman, to protect the environment of upstate New York. If we allow drilling in the Catskills, will we be signing our children's futures away? For what? For some barrels of gas? A few lights to be turned on, a few trips into town, perhaps a manufacture of some

appliance selling their air, their water, their food for only enough natural gas for the entire country for two years and that gas will take anywhere from five to 30 years to extract. Do not allow the oil and gas companies no matter how deep their pockets to push us away from protecting our most precious resources, the natural resources that will not only sustain our lives, but also provide us with the energy we require, clean air to breathe and turn wind turbines, clean water to drink and turn water turbines, and clean soil to grow local food. I don't know if my husband mentioned, but we built our house and it's powered completely with solar panels. I'm just about done. If we destroy these natural resources in [off mic] for oil and gas there will be no future, oil or not, for us or our children. At our farm in the Catskills, my daughter likes to kneel down and dip her lips into the cool spring-fed creek. I have told her that not many people can do such a thing because the world's water is mostly contaminated. We have a special gift in the Catskills, the water that runs in New York City's watershed is not cleaned by filtration units or

threatened with chemicals, the water that the people of New York City drink begins as pristine spring water in the Catskills. It is a calling of the government to protect the public health. This is the clearest case. You have the opportunity to protect the watershed of almost 9 million people, I ask you to not put New York's water, soil, and air at risk by permitting drilling in or even near the city's watershed. Help me keep the creek where my daughter drinks clean for her granddaughter, as well as for future generations in the city. Thank you, Mr. Chairman.

CHAIRPERSON GENNARO: Thank you, thank you, thank you. I'll call you Kate, okay? Thank you--

KATE MARSIGLIO: That's fine.

CHAIRPERSON GENNARO: --thank you, Kate.

KATE MARSIGLIO: Yeah.

CHAIRPERSON GENNARO: And appreciate your wonderful testimony. Thank you, thank you. And--

KATE MARSIGLIO: Okay.

CHAIRPERSON GENNARO: --well

everything I can, I mean, there's so far one
elected official in New York state, that is
completely opposed to doing this and so that's me,
so I do get it and I'm trying to do something. I
don't have the authority to do what I'm trying to
do. That's why it--if I had the authority do it,
I would just do it. If I had the ability to
compel my institution, the City Council to pass a
law I would get that done. So--

KATE MARSIGLIO: But the people can
give you a--

CHAIRPERSON GENNARO: --I am trying
to do something that I do not have the authority
to do.

MALE VOICE: We have pitchforks
[crosstalk]--

CHAIRPERSON GENNARO: --and so--

KATE MARSIGLIO: I want you to know
that I went to one of the meetings for the scope--
the scope hearing meetings that took place
throughout the state and there were over 300
people there in Oneonta that were very concerned.
So you have the support of many of the people
[background noise] state.

CHAIRPERSON GENNARO: I have the support, but I don't have the authority and so, but we have to go to next panel, there's a lot of other people that need to testify. And so and, before we call the next panel, I mean, there are-- I don't think anyone could have said it better than Kate that what needed to be said and I'm glad that it was said, but for the purposes of, you know, going forward, you know, in the hearing, this hearing is a strategy session on what we can do, so--and but I'm glad that Kate said what she had to say, but like, let that be the--because no one could have said it better and let that, you know, testimony stand, you know, on its own and-- because anyone else that tries to evoke what she tried to evoke, I don't think is going to do like as good a job. And so that will be--and to the extent that the rest of the testimony can focus directly on what I do to make this happen that that's, that's what we have to get done. But thank you very much, God bless you for being here and everything that you do to make this a truly sustainable world. If only more people like you then that would be great.

KATE MARSIGLIO: We look really good in the newspaper. That's--

CHAIRPERSON GENNARO: What's that?

KATE MARSIGLIO: --that's something we can do, we look really good in the newspaper.

CHAIRPERSON GENNARO: Okay. So do I, so do I.

KATE MARSIGLIO: Well, you know.

CHAIRPERSON GENNARO: If I do say so myself.

MALE VOICE: I'm glad I didn't have to [background noise]

CHAIRPERSON GENNARO: Right. And what's that? I--it's three and so now there are a lot of people here from Damascus Citizens and is it the intent of Damascus Citizens to have everybody from--how many people are here from Damascus Citizens?

PAT CARULLO: Four.

CHAIRPERSON GENNARO: Four.

PAT CARULLO: I will just submit my piece as per Al [crosstalk]--

CHAIRPERSON GENNARO: [Interposing] You know, just sit down because your statements

are not on the record. I'm not sure behind the microphone.

PAT CARULLO: We can have all four--

CHAIRPERSON GENNARO: [Interposing]

Okay. Yeah, so we'll--people who are from Damascus Citizens, please come forward, but I just want every witness from here on is to be mindful of that what has been established is that, you know, hydrofracking is bad, I know that.

Pollution--

PAT CARULLO: Okay.

CHAIRPERSON GENNARO: --is bad.

PAT CARULLO: We won't [off mic]

CHAIRPERSON GENNARO: And that the state shouldn't--and that the state is silly, I know that too and so what we're trying to figure out, I mean, you know, we certainly have to give voice to that in a hearing like that and that has to be expressed, but if it's expressed a hundred times, it loses a little something. And so we're going to like talk talkless now

PAT CARULLO: Yes.

CHAIRPERSON GENNARO: You know what I mean?

PAT CARULLO: Yes, and thank you.

CHAIRPERSON GENNARO: People understand what that means. We need to get down to brass tacks.

PAT CARULLO: Well, my name is Pat Carullo and one of the--

CHAIRPERSON GENNARO: [Interposing] Oh yes, we'd--the counsel will swear the panel--

COMMITTEE CLERK: Raise your right hands. Swear or affirm to tell the truth, the whole truth, and nothing but the truth today?

PAT CARULLO: Yes.

MALE VOICE: Yes.

CHAIRPERSON GENNARO: Okay. So in whatever order people wish to speak, you can proceed and state your name for the record, and then proceed.

PAT CARULLO: Yes, Councilman Gennaro, my name is Pat Carullo and one of the founding members of Damascus Citizens, we're a grassroots group some 4,000 strong. I just submitted to the Council a document as per Al Appleton's comments--

CHAIRPERSON GENNARO: Okay.

PAT CARULLO: --which is critical to your work. I will just paraphrase the document in less than a minute. Your work is extremely important. As we speak the city of Pittsburgh has had their municipal water supplies, plural, 11 of them contaminated. You'll see the details that are just now being reported. Now the wastewater is really in a sense shutting down the sewage treatment plants, the details are all in that two-page document and these details are just now beginning to emerge. The city of Pittsburgh has ordered their citizens, recommended their citizens drink bottled water until further notice. Now the circumstances there were very simple and a simple timeline to follow, we knew in early spring that the wastewaters were being shipped down to West Virginia. Why? Because the outgoing Pennsylvania DEP Secretary, and you'll see the name and details, made an Executive Order that the wastewater was drilling--hydraulic fracturing wastewater was too toxic to be taken by municipal sewage treatment plants. So the water was shipped to the Monongahela River which flows north to Pittsburgh, now 385,000 people are drinking

bottled water. So that's just on the back end of the hydraulic fracturing process and again I won't elaborate on what happens to the some 30 or 40% of the wastewater that remains behind in the ground at these many locations. So I just wanted to bring to your attention, as per Al Appleton's counsel and advice, the circumstances of the good people in Pittsburgh and the tremendous impact upon their municipal water supply as we speak from natural gas drilling wastewater.

CHAIRPERSON GENNARO: Thank you.

Thank you, Mr. Carullo, I appreciate that, and all of your work, you've been terrific. Appreciate that.

COUNCIL MEMBER KOPPELL: Mr.

Chairman, Ed just to [off mic] does the committee have a perhaps reports media reports or others of what's happened in Pittsburgh?

CHAIRPERSON GENNARO: You have--the staff of the committee has a record of all of the media reports that we know about. Damascus Citizens has been helpful in trying to get us some of those reports and--yeah, and so we do have quite a record of that. Sir, yeah, please, state

your name for the record [crosstalk]--

MICHAEL LEBRON: [Interposing] Good afternoon, my name is Michael Lebron and I have a prepared statement that came in under two minutes, I'm going and try to cut even shorter.

CHAIRPERSON GENNARO: Okay.

MICHAEL LEBRON: And I'll be speaking to the issue of industrial standards. I currently work as a creative [off mic] advertising and my perspective springs from 20 years experience in marketing primarily helping pharmaceutical and medical device companies promote their products to both physicians and patients. In the 90s, I worked on a promotion for Rezulin, a new drug manufactured by Parke-Davis that was designed to allow millions of diabetes sufferers to control their blood sugar levels without taking recourse to injecting themselves with insulin. It passed FDA safety trials over a period encompassing roughly a decade, was approved, and enjoyed a hugely successful launch, but trials are populated with a few thousand volunteers at most. Well that was usually enough to fairly indicate how a product will perform

after approval. Sometimes these trials fail to capture side effects that only emerge in a patient population encompassing hundreds of thousands. In this case, Rezulin effectively treated 750,000 diabetes sufferers, but 63 people died from liver failure as a consequence of taking this drug.

With a mortality risk ratio that exceeded permissible FDA regulations, at 84 one-thousandths of 1%, the drug was ordered off the market. Keep in mind that pharma pays for the trials that are expected to pass, after investment of hundreds of millions of dollars, Parke-Davis had to write off.

In Binghamton last week upstate for the scoping hearings, Gilda Rush [phonetic], 24-year Associate Transportation engineer testified that 50% of all gas load [phonetic] casings in the Gulf region fail within 15 years. Not 84 one-thousandths of 1%, but 50%. Leaky casings allow toxic drilling chemicals to enter the water table and eventually our rivers, streams, lakes, and reservoirs. Among these pollutants is benzene, a chemical known to cause bone marrow damage, a decrease in red blood cells, a weakened immune system, low birth weight, leukemia, and cancer. Now how much is too much

benzene? So I'd like to draw your attention to the example of Perrier water company, who in the early 90s had to recall 180 million units of bottled water because 19.9 parts per billion of benzene, exceeding the FDA permissible limit of 5 parts per billion, were discovered in random samples by North Carolina county officials, who so prized the purity of Perrier that they were using it as a standard in tests for other water supplies. So the question I would like to put Halliburton, Chesapeake, Cabot, Eastern, and others is this, can you guarantee that you will limit exposure of our drinking water to benzene to 5 parts per billion? And if you cannot, do you have any effective designs drawn up for the recall of our water tables? Obviously groundwater contamination is notoriously difficult and expensive to remediate and many, if not most, cases, groundwater contamination is remediated by natural attenuation, in other words, it is not remediated at all, rather, it is hoped that it will remediate itself. Even assuming that eventually it does remediate itself, it can take years to decades. So to the committee in summary,

what I'm asking [off mic] is that we simply, because the industry is saying don't over-regulate us, what I'm saying is that we should hold the oil and gas companies simply to perform to the same exacting standards that we expect from the pharmaceutical and bottled water industries.

Thank you.

CHAIRPERSON GENNARO: Thank you.

Thank you. Next witness.

BARBARA ARRINDELL: Okay. My name is Barbara Arrindell, and I'm from Damascus Citizens for Sustainability, or DCS. We have a website, damascuscitizens.org where you can find our research white paper. There's a documented regional summary of the harmful effects which can be expected if the proposed gas drilling in the upper Delaware watershed takes place. I'm going to skip over some of this. The costs--what we're asking that the New York City Council demand the DEC consider all the costs of drilling with hydraulic fracturing before this activity is authorized and that the costs may require prohibiting drilling as an activity not consistent with an uncontaminated environment. The effects

on local and downstream inhabitants are not being considered. All stages of gas development generate pollution and contamination, drilling, fracturing, gas processing, and all the waste handling along the way for the life of the well. This is an intrinsically contaminating process. The cost evaluations must include the degradation of the community, the water, the air, the environment itself as a tremendous scale of the proposed activity is like nothing else has ever happened in New York. An aquifer cannot be restored once it's contaminated. In Colorado, the health effects of drilling are now being measured. For example, asthma cases are up 30% in a three-year period, more than a thousand cases of water contamination from gas drilling and from hydraulic fracturing are documented in Colorado, New Mexico, Wyoming, Texas, Alabama, Ohio, and Pennsylvania. The Monongahela is now contaminated from gas drilling waste. Bottled water is useful only for cooking and drinking, not for large volume consumption, such as bathing. Children bathed in water with small quantities of contaminants can bear lifelong chemical burdens resulting in

disease later in life. What is the cost of your children's lost future? When water is contaminated, you cannot grow food, you cannot keep animals, you cannot even process or serve food grown somewhere else. What is the value of this loss? The scope should include baseline testing of water, ground and aquifer water, testing of air quality, mapping of the actual underground geology and underground water sources wherever drilling is potentially considered. How else can the state determine whether or not drilling has harmed any of these qualities? I have here the news release from the PA DEP in reference to the Pittsburgh bottled water material. And then I also have here recently released from the PA DEP an actual list of chemical components from MSDS sheets of frac water chemicals. This list includes things that are, though produced in 99% pure material, are poisonous in micrograms of that material per liter. This is the list that is now available in Pennsylvania, it does not include some proprietary materials, but this list is extremely poisonous materials, some are innocuous on this list, but

many are extremely poisonous. This is what's going into the water table where there is fractured bedrock. Fractured bedrock is all across Pennsylvania and New York state, that's why we have springs, the springs are connections between pressurized water deep underground and the surface. That's why you can have a lake on the top of a mountain because it's pushed up from the pressure from below. These materials will flow from the 30% to 100% that are left in the water table up to these other areas. And there are tools left in the federal statutes that have been gutted, but there are tools left there that the New York State--that the New York City water concerns should use in order to make its point that drilling should not be done wherever water is sourced.

CHAIRPERSON GENNARO: Thank you.

JOE LEVINE: My name is Joe Levine, and I'm an architect--

CHAIRPERSON GENNARO: [Interposing]
I remember you from last time.

JOE LEVINE: Yeah, I was here last time, yeah, we spoke. I saw you a couple of

times. I'm an architect, I live in New York. I also have a place on the upper Delaware River in the River Basin. My practice here in New York includes urban infrastructure, restoration, and upgrading, urban planning and environmental subdivision design in critical landscapes. I'm a member of Damascus Citizens, I'm going to spare you the five pages I have here because--

CHAIRPERSON GENNARO: God bless you.

JOE LEVINE: --a lot of it is [off mic] And I appreciate what you're doing so much--

CHAIRPERSON GENNARO: Sure.

JOE LEVINE: --so consider that a payback.

CHAIRPERSON GENNARO: Thank you.

JOE LEVINE: Yeah.

CHAIRPERSON GENNARO: Thank you.

JOE LEVINE: But there are a couple of issues that I'd like to bring out 'cause I've been just, you know, the cumulative impacts issue has just been mind-boggling to me to think about. Once again, it's been brought up here, Ramsay talked about it, but, you know, this project is evaluated one well at a time and it's not about 1,

10, it's not about a hundred. This is a piece of New Mexico where it was, you know, beautiful, the land of enchantment and they started in fielding [phonetic] wells and these wells have encroached on Munoz [phonetic], New Mexico here and it's really not a habitable environment anymore.

CHAIRPERSON GENNARO: No.

JOE LEVINE: And they don't have any, you know, any of the issues. It's not just out west anymore. I could provide you with images also from the Allegheny National Forest now, which is very similar terrain as our Catskill Mountain region. Alleghenynationalforest.com has exactly this happening to it right now. So the cumulative impacts thing I think is, there's no way that this project should be able to be--Marcellus project is not about one well, it's just this sinister plan of one lease at a time and it's just, you know, there's no way to evaluate it, even the Delaware River Basin Commission, who I have great faith in is still looking at it as one permit application at a time. There's got to be a way to get out of that mindset. Another issue that I think is very important is, and it hasn't been addressed at all,

but it affects everything else we do, especially here in the city, we know what zoning means. So this seems that the whole Marcellus project has no relevancy to zoning. The Catskill Mountain watershed region for one or even other areas that are agricultural or residential areas are not zoned for industrial, but these companies are allowed in to and allowed to install industrial facilities. There is one case that I know of that's going to the Supreme Court, this is the PA Supreme Court right now, and that's called the Nockamixon and Salem Township, Salem Townships versus Range Resources case and the case that they're making there and, by the way Damascus Citizens is a party on the amicus brief, friends of the court to support these townships there, is about zoning. It's the only thing they found that they could grab onto that might be the best way--

CHAIRPERSON GENNARO: Right.

JOE LEVINE: --to do something is about zoning and they're saying we have the right to determine where our industrial zones are going to be and that's all they're saying. And one last thing, you know, the whole charade about energy

independence and national security, you know, all of these exemptions were given to these companies in the conversation about national security and energy independence and the 2005 Energy Act, which exempted everybody from all of these acts, well what's happening now is that companies in our--in the region up there that your--in the watershed region, Chesapeake Energy is selling now assets because they're in bad financial condition to foreign entities, so now the foreign entities are going to share those exemptions, be able to drill, leave their pollution behind, and take the energy and sell it on the world market. It's not coming back to us. So with the whole thing about, you know, anybody talk about energy--

CHAIRPERSON GENNARO: Right.

JOE LEVINE: ----independence, national security it's totally a charade, we won't even own that gas that they're extracting at the expense of destroying the region and turning it into an industrial zone and threatening the greatest water supply system maybe there is. So thank you very much [crosstalk]--

CHAIRPERSON GENNARO: [Interposing]

Thank you, Mr. Levine, for making that case.

Very, very compelling testimony, I appreciate it and all the good people from Damascus Citizens. I get paid for what I do, I'm getting paid to sit here right now and it's, you know, you're not getting paid, you know--

[Off mic]

CHAIRPERSON GENNARO: You're not getting paid to do this, but you've done great work and you should be commended for it and, you know, water systems all around the country will benefit from your very diligent consciousness-raising that you've been doing and, notwithstanding the fact that I'm limiting my scope to what's inside New York City's, you know, drinking water supply watershed, I agree with you that this is a phenomenon that has to be addressed throughout the country. I'm not doing that, but you are and I certainly, you know, salute you for that. Thank you very much, appreciate that.

[Off mic]

CHAIRPERSON GENNARO: And now okay let me just...

[Off mic]

CHAIRPERSON GENNARO: Okay. The next panel we're going to do is Joe Kupferman, New York Environmental Law and Justice Project; Deborah Goldberg from Earthjustice.

[Off mic]

CHAIRPERSON GENNARO: Maya Homics, Croton Watershed Clean Water Coalition; and Grace Van Man--I don't have my glasses on, Grace Van Holsteyn?

GRACE VAN HOLSTEYN: Holsteyn.

CHAIRPERSON GENNARO: Holsteyn, sorry, Catskill Citizens for Safe Energy. I'll be, once again, right back. The panel can get seated, they can be sworn, I'll be back within one minute.

[Off mic]

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

DEBORAH GOLDBERG: Yes, I do.

COMMITTEE CLERK: Thank you.

[Off mic]

MALE VOICE: Just identify yourself,

thank you.

[Off mic]

CHAIRPERSON GENNARO: Okay. Yeah, that's that has nothing to do with me, that was a whole other thing. Thank you very much for being here, the panel is seated and sworn and these are the statements here. Why don't we have Deborah Goldberg from Earthjustice. Okay.

DEBORAH GOLDBERG: Thank you very much for inviting me to testify today, Mr. Chair. I am Deborah Goldberg, I'm the managing attorney of the Northeast office of Earthjustice. We are the nation's leading nonprofit environmental law firm and we have done substantial work out west on oil and gas development particularly on public lands. The attorneys here in the New York City office are very eager to ensure that we do not repeat the mistakes that have been made out west and in particular to ensure that the New York City drinking water supply is not placed at risk by an inadequately protective state regulatory program governing natural gas development. I'm going to take you at your word and I'm going to focus on strategy.

CHAIRPERSON GENNARO: Thank you.

DEBORAH GOLDBERG: So I started out with five pages, I reduced it to a paragraph, I now have two points. My first point is that I think that if you're going to be successful, then you need to think beyond your jurisdiction and beyond your authority. I understand what they are, but I think that if you're going to be able to actually get done what you need to do, you need allies and that means you need to reach out to people who do not have jurisdiction over the New York City watershed, but do face the same types of problems that we will face here. It's obvious in particular even if you persuade DEP to exercise its regulatory authority and to adopt stronger regulation, that the state's going to approve those new regulations, you need allies in the state and that means going far beyond probably what is your comfort zone in order to make sure that you have the base of support throughout this state so that New York City's watershed can be protected, the piece that is within your authority. Secondly, I think it's very important for this body to take a leadership role in keeping

the state accountable. It's very important for you to do that for DEP as well and I say do that actively and admirably this morning. You need to get involved, if you're not already in the state processes--

CHAIRPERSON GENNARO: [Interposing]
Did you see me back in September with Pete Grannis--

DEBORAH GOLDBERG: I did.

CHAIRPERSON GENNARO: --and what was left of him like after that hearing?

DEBORAH GOLDBERG: I did.

CHAIRPERSON GENNARO: Okay.

DEBORAH GOLDBERG: And I want to encourage you, if you are not already, to get involved in the regulatory review--the review process that's under way right now.

CHAIRPERSON GENNARO: We have comments.

DEBORAH GOLDBERG: Excellent. I would ask, if you're not already doing so, that you not only submit comments on the substance of the scope, which I think you will agree is abysmal, but that you ask for a new scoping

document. In my view, this document is so deficient that it does not provide the public with enough of a basis even to comment intelligently on what the agency plans to do. There is not mention of a single methodology in the entire scoping document and how we are supposed to present a reasoned critique of this document when we can't even discern how they plan to do what they ostensibly plan to do is beyond me. I would encourage you--

CHAIRPERSON GENNARO: [Interposing]
What do--if you wish to sort of work with the Council to the committee to come up with language that you think would say that effectively--

DEBORAH GOLDBERG: [Interposing] I'd be happy to do so.

CHAIRPERSON GENNARO: --then talk to Samara Swanston and we will do that.

DEBORAH GOLDBERG: And I also tell you that Earthjustice is also submitting comments jointly with NRDC and a number of other organizations and in our comments we are making that request, I can send you the language straight from our comments [crosstalk]--

CHAIRPERSON GENNARO: Okay.

DEBORAH GOLDBERG: --and that would probably work just fine. The second thing I'd like you to do as you keep the state accountable is, I mean, I think that you should support the development of the factual record by DEP. You also should support a thorough environmental review by DEC, and that's why I'm encouraging you to be very active in both the scoping process and in the review of the draft Generic--draft Supplemental Generic Impact Environmental Impact Statement. We want them to do as good a job as they possibly can do because if they do a reasonably good job as Eric Goldstein suggested, they'll probably be sued and they need a good record to defend a good job. On the other hand, if we push them as hard as we can and give them every opportunity to do a good job and they do a bad job, I can assure you there will others who sue. And so I think that it's just very important that the state be encouraged to do the right thing and that they be held accountable if they don't, and your participation in that process would be enormously helpful.

CHAIRPERSON GENNARO: Right, thank you. Thank you very much. And I'm going to just... [Pause] I have so many statements in front of me. The next statement I have is from Croton Clean Water with Maya Homics, is this your statement here?

MAYA HOMICS: Yes.

CHAIRPERSON GENNARO: Okay. Great, thank you.

MAYA HOMICS: Thank you for this opportunity, I'm Maya Homics with the Croton Watershed Clean Water Coalition. Much of what I had in my statement has in one way or another been covered, though I did want to focus in on one part of my statement. In July 2008, New York State Governor David A. Paterson signed a measure in regard to energy production in New York State that included allowing additional gas wells and the use of extensive horizontal drilling. At the same time, he ordered the state Department of Environmental Conservation agency quote, to come up with a tougher Generic Environmental Impact Statement that addresses the water intense drilling known as hydrofracking, end quote. It is

interesting that on page 14 of the October 6th, 2008, DSGEIS, paragraph 2.1.4, it states, drilling of multiple wells from common pads is anticipated for Marcellus Shale development and is viewed favorably and it goes on in this vein. Governor Paterson's initial order to the DEC was in the right direction, though it did not go far enough in regard to upstate reservoirs and the New York City watershed where gas drilling should be outright banned. The implications are far greater than most people realize. Among other factors, gas drilling in the watershed cannot be done quote without imperiling the federal waiver that has allowed New York to avoid building another filtration plant that would cost \$10 billion to \$12 billion, but now it has been estimated, would really cost closer to \$20 million, end quote. It is bad enough that the NYC DEP did not keep developers at bay in the New York City watershed which resulted in the Memorandum of Agreement of 1997 and the building of a massive chemical filtration plant in Van Cortland Park in the Bronx using outdated DAF technology instead of membrane filtration and the cost already is over 3 billion.

The 2005 Energy Policy Act had a provision which stripped the federal government of most of its authority to monitor and regulate hydraulic fracturing's impact on the environment and by default that responsibility would now fall to the states, which brings us back to Governor Paterson's and the New York State Legislature's actions. They did not go far enough in ordering the state Department of Environmental Conservation to develop a tougher Generic Environmental Impact Statement addressing the high water usage of hydrodraulic drilling, because it left the upstate reservoirs and the New York City watershed vulnerable. In this regard, we join the position of other environmental groups including the Sierra Club, the Natural Resources Defense Council, and Riverkeeper and ask that Governor Paterson put a permanent ban on gas drilling activity in the areas of the upstate reservoirs and the New York City watershed. Also, in areas where it is allowed, there should be close monitoring and regular testing of water quality as the work progresses. Thank you.

CHAIRPERSON GENNARO: Thank you,

thank you very much for your statement, Ms.--is it Homics, the last name, how you say it?

MAYA HOMICS: That's fine.

CHAIRPERSON GENNARO: Homics, okay. Okay. Great. Grace Van Holsteyn, right.

GRACE VAN HOLSTEYN: Holsteyn, yes.

CHAIRPERSON GENNARO: Holsteyn, okay.

GRACE VAN HOLSTEYN: Yes, I do not have any prepared statement--

CHAIRPERSON GENNARO: [Interposing] Okay. Just make sure your microphone is on.

GRACE VAN HOLSTEYN: Is it on? Is this--can you hear me now?

CHAIRPERSON GENNARO: Yeah, I just don't think the volume's up that much, but you should go to the...

GRACE VAN HOLSTEYN: Okay. Can you hear me now?

CHAIRPERSON GENNARO: Yes.

GRACE VAN HOLSTEYN: Okay. I don't have any prepared statement, because I am here on behalf of Catskill Citizens for Safe Energy, but I'm here on the last minute. I did want to make a

few observations, Ms. Goldstein has stolen some of my thunder in the sense that her focus was large-- was a lot on what the city can do in respect of the DEC. And I wanted to bring a couple things, which you may or may not be aware of, to your attention, which I think is within the power of the DEC to do and should be recommended by the city. One of these is I've been doing some research about the present classification by the state of New York of the fracking fluids and the other produced fluids as industrial waste as opposed to hazardous waste. This apparently dates back to sometime in the 80s, apparently the EPA, the EPA evidently made a decision in 1988 that these materials are not harmful to the environment and therefore should not be considered as hazardous waste and New York has adopted the same policy and there's a specific provision in the regulations, which is at 6 New York Code of Rules and Regulations 371.1. I believe it's sub to--

CHAIRPERSON GENNARO: [Interposing]

You can leave the citation to the Council to the committee--

GRACE VAN HOLSTEYN: Okay.

CHAIRPERSON GENNARO: --after your statement.

GRACE VAN HOLSTEYN: To the effect that, although it is considered a solid waste, all--this waste, including all the liquids, are excluded from the list of hazardous materials.

[Bell] Is that me?

[Off mic]

CHAIRPERSON GENNARO: Oh, okay. Okay, so I don't think there was quite three minutes, but please summarize.

GRACE VAN HOLSTEYN: [Crosstalk] Yeah, and I think that that is something that does need to be adjusted by the DEC because they are the ones who make those regulations. The second point is, and this is really my position, and I have not actually discussed it with Catskill Citizens in detail, but I would like to promote the idea that when drilling permits are considered, that the DEC take a more proactive view--proactive position toward drilling than it's taking now. Right now, the gas companies are dictating everything that happens: they choose the sites, they decide what's going to go first, they

1
2 decide virtually everything about gas drilling and
3 the DEC says yes or no. And if the DEC were to
4 only permit a limited number of wells to be
5 drilled which could be kept under the observation
6 of their very limited numbers of inspectors, then
7 everyone can get a better handle on what can
8 happen and if these locations chosen were things
9 which are deliberately kept distant from any water
10 supplies and also distant from human habitation,
11 then they could be studied and the results of
12 those studies would then give some idea what the
13 impact will be for any further gas drilling that
14 gets done. Also, there are many health studies
15 that are being undertaken in the West and they're
16 incomplete now mainly because the outbreak of
17 symptoms often lagged several years, you know,
18 after exposure and those studies are really
19 incomplete now, but they will become incomplete as
20 we move along, therefore, that will give
21 additional time for that to take place too.

22 CHAIRPERSON GENNARO: Thank you,
23 thank you. I certainly appreciate that and the
24 citation on the particular law, you can refer to
25 Ms. Swanston, the Council to the Committee, to

take a closer look at that hazardous waste versus industrial waste difference and Deborah was going to interact with Samara regarding language from your statement.

GRACE VAN HOLSTEYN: Oh.

CHAIRPERSON GENNARO: Yes.

GRACE VAN HOLSTEYN: One more thing, I have here our comments, I mean, from Catskill Citizens, which are quite extensive and I thought maybe [crosstalk]--

CHAIRPERSON GENNARO: [Interposing] We'd be happy to have them, sure.

GRACE VAN HOLSTEYN: --useful as [crosstalk]--

CHAIRPERSON GENNARO: You bet. You bet. Okay. Thank you very much.

[Off mic]

CHAIRPERSON GENNARO: Okay. We have some--okay, we have some more witnesses, we'll kind of put them into panels. Mr. Buck Moorhead from New York City; Larry Fuchsman, looks like; Jan London; Carl Arnold.

[Off mic]

CHAIRPERSON GENNARO: Okay and your

name, sir?

BUCK MOORHEAD: Buck Moorhead.

CHAIRPERSON GENNARO: Okay. So I take it that the others may not still be here. And why don't we--Joy Garland, Joy Garland, is Joy Garland in the house?

[Off mic]

CHAIRPERSON GENNARO: Okay. Heidi, looks like Gogins.

[Off mic]

CHAIRPERSON GENNARO: Okay, okay.

[Off mic]

CHAIRPERSON GENNARO: Okay. Katrinka Moore, Katrinka Moore in the house? Rita Shore, Rita Shore, no. Okay. Buck, you're on.

BUCK MOORHEAD: Oh, very good.

CHAIRPERSON GENNARO: [Crosstalk] We'll swear you in and then we'll get going.

COMMITTEE CLERK: Sir, would you please raise your right hand. You swear or affirm to tell the truth, the whole truth, and nothing but the truth today?

BUCK MOORHEAD: Yes, I do. Well I'm going to--Buck Moorhead, I'm a 30-year resident

here in New York City, also a 25-year part-time resident of the upper Delaware River Valley, so much of where this is happening is right in our neck of the woods up there. So been very familiar about it for a about a year unfolding, Kate probably took about three quarters of my talk and said it way better than I would've ever said it so I'm going to skip that part.

CHAIRPERSON GENNARO: Okay.

BUCK MOORHEAD: Make a couple of quick points, one that the--many of the difficulties in this issue are a particular-- particularly a failure in fact finding. The 2005 Energy Act which exempted this process for much of the clean water safe drinking you've been hearing about and obviously know about, was promulgated by a 2004 EPA study, which now is under question. There is EPA has a whistleblower who is claiming that they were strong-armed by the current federal administration to bury some of the information from that 2004 study that the EPA used and was the basis for Congress basically saying, hey, it's okay that we do this because nothing's going to be harmed by it. So I don't think that's come up

today, I wanted to say that. The second part is that this--you know, being in New York City and I'm an architect here, we do a lot of construction and this is an enormous, mammoth construction project, and here in New York we have very exhaustive codes, we have educated, responsible engineers, diligent municipal departments and top shelf construction firms that are trying to do projects and within that environment, being our environment here in the city, we still have cranes that fall down, we still have license that are improperly issued to people, falsification of concrete test results, and, even in the most heavily watched construction site probably in the world be it the World Trade Center site, we have firefighters who died because a pipe was cut and no one knew about it. So if here we have a situation with this large construction project and we're supposed to rely on the integrity of well casings 1,000 feet underground in a forest 100 miles from here installed by nomadic companies that are--have international interests, that are out to make as much money as possible, and New York State DEC with a different agenda and grossly

understaffed, we're supposed to rely on that situation to protect our drinking water, which you know is--obviously I'm speaking to the choir here, I know--but that's, you know, just patently absurd. And I'll make my grandchild point here, but if our grandchildren happened to think that we--I had originally written morons here, but I decided to say asleep at the wheel but, you know, same thing--for having allowed this to happen, they will have a solid indisputable point.

CHAIRPERSON GENNARO: Thank you, thank you very much, Mr. Moorhead, for your statements and your interest and your inspiration to us to continue to move forward. So--oh, you get a statement there?

[Off mic]

CHAIRPERSON GENNARO: Okay. No. Thank you. Thank you, you bet. And I thought that Mr. Moorhead was the last witness and in all of the--in the confusion on the desk up here, I see that there are two more slips, representatives of the Sierra Club. Joe Fishman, Arnold Frogel, it looks like. Our--

[Off mic]

CHAIRPERSON GENNARO: Okay. So Joe is not here, but Arnold is here, right? Okay. Mr. Frogel--

ARNOLD FROGEL: I'm Arnold Frogel, New York City group of the Sierra Club, Atlantic Chapter. I can't add--I can't upstage what has been said before me. I'd just like to mention that this whole, hydraulic drilling--fracture drilling idea has come out of a climate of irrational exuberance by the energy industries. And that's, I think that's an appropriate description and maybe somebody should consider the replacement cost in dollars of when a watershed is destroyed. They understand dollars and maybe it should be quoted. The question should be put to them in that form and if there's anybody here who still gives an undeserved acceptance of bottled water as a substitute for what comes out of the tap, it should be understood that bottled water stays on the shelf very often for a long time and leaching out of the plastic is antimony, among other substances, which there was an article in an London, Ontario newspaper about two years ago, which had mentioned that the amount of antimony in

bottled water on supermarket shelves mounting with time as it stays on the shelf and averages hundreds--sometimes hundreds of times the acceptable limit by the Canadian environmental agency. And there may be those who think that, well if our Catskill water is contaminated, we can just start drinking bottled water. Thank you.

CHAIRPERSON GENNARO: Thank you, Mr. Frogel. Appreciate you being here and your patience. I want to thank everyone who participated in the hearing today. The staff that put it together: Samara Swanston, Siobhan Watson, and Shams Tariq [phonetic] Consta Constanudes [phonetic], and other staff members of the Council that got us here today. And with no one else wishing to be heard, once again, thank you all for coming. Happy holidays, if we don't see you and all the best. This hearing is adjourned.

FEMALE VOICE: We have a bunch of slips--

CHAIRPERSON GENNARO: Just when you thought the hearing was really adjourned--

FEMALE Voice: We have a bunch of stuff that was--

CHAIRPERSON GENNARO: --we have a--I have to state sort of for the record that we received testimony for the record. Should I really read all the names of these people into the record? No, this is all the testimony we got so far today.

FEMALE VOICE: Okay. So who didn't--he didn't testify.

CHAIRPERSON GENNARO: Okay. For the record, the Office of the City Controller issued--who gave us testimony for the record. Any other entity that issued testimony for the record.

FEMALE VOICE: I think that's it.

CHAIRPERSON GENNARO: Okay.

FEMALE VOICE: Yeah, I think that's it.

CHAIRPERSON GENNARO: Okay. There have it. The hearing is once again adjourned. Okay.

[Off mic]

C E R T I F I C A T E

I, Tammy Wittman, 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 Tammy Wittman

Date December 26, 2008