BEFORE THE NEW YORK STATE SENATE
STANDING COMMITTEE ON VETERANS, HOMELAND SECURITY, AND MILITARY AFFAIRS

PUBLIC HEARING

TO BUILD AWARENESS ABOUT HYDRAULIC FRACTURING, AND SOLICIT TESTIMONY REGARDING LEGISLATION AND PUBLIC POLICIES NEEDED TO PROTECT THE HEALTH AND WELFARE OF THE PUBLIC AND OUR ENVIRONMENT

Katonah Village Library
26 Bedford Road
Katonah, New York

Tuesday, August 23, 2011
9:30 a.m.

PRESIDING:

Senator Gregory Ball, Chair

SENATE MEMBERS PRESENT:

Senator Elizabeth Krueger

Senator Andrea Stewart-Cousins

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SENATOR BALL: Good morning.

If we could just start with the Pledge of Allegiance, everybody, and then we'll get started.

I pledge allegiance to the flag of the United States of America, and to the Republic for which it stands, one nation under God, indivisible, with liberty and justice for all.

I know that everybody is busy, so we're going to get started.

We have a few more senators that are on their way, and making it to the North Country from the city, which can always be tough. I know, in the reverse direction, I am late sometimes.

I want to introduce Senator Krueger for a couple brief remarks.

Before that, I'll just make a brief statement.

You know, we're on the precipice of having a multi-billion dollar industry come in to the state of New York.

And as a legislator, sometimes you sit at a table. And specifically on this issue, those who are against fracking, very successfully, and very forcefully, present their side, their opinion. And then the industry --

Senator, how are you?

SENATOR STEWART-COUSINS: Hi.

SENATOR BALL: -- then the industry will, with an absolute certainty, present their side.

And at the end of that discussion, you're left scratching your heads, saying: Who's telling the truth, and where's the gray here.

I find that, in politics, the answer isn't always on the extreme of either side. But in this one, we're dealing with folks' health, the quality of our environment, and some extremely pressing issues.

So, I decided to head to Pennsylvania, right across the border, and see it firsthand.

And I can tell you that I saw some good stuff. I saw some economic activity, I saw some job creation. Some of those jobs were from -- for folks from Texas and Colorado, not Pennsylvanians, which is a totally different issue.

But, I saw some bad stuff too. Some really bad stuff.

I saw farmers whose lives were devastated; whose cattle, in one instance, there were eleven cows at freshen.

Many of you may not have grown up on a farm.

I did.

Out of those eleven, eight of those were still-birth. The farmer was pulling dead calves out of those cows.

Eight out of eleven -- if any you have an agricultural background -- is absolutely ridiculous. Just doesn't happen.

I saw a fifth-generation family, whose property value went from $300,000 to $9,000. Their water was contaminated.

And the industry said, "Well, it's not our fault"; even though they had been drinking that water from five generations. And only in the aftermath of a fracking platform put on a neighbor's property was their water contaminated.

And I've seen loophole after loophole in Pennsylvania, where an industry has been allowed to walk through those loopholes with nothing short of a Mack truck.

Can we frack in New York? Can we create jobs in New York? Can we increase economic activity in New York?

Let's have that discussion, but let's not do it by creating the very same loopholes that we've seen taken advantage of in other states.

I invited the industry to come here today --

[Applause.]

SENATOR BALL: I invited the industry to come here today.

And, honestly, there were questions, with the hearing that held when I was in the Assembly, that I really would have liked to have had answers, to.

I think it's extremely important that we dig down into this issue as New Yorkers on both sides of the aisle, and really begin to ask some of the very tough questions that need to be had. That's got to be part of this equation.

And, for the industry not to be represented today, I can tell you that these questions, if it's up to me -- and I won't speak for the other senators because they do a good enough job themselves -- but, before we allow a multi-billion dollar industry, that's on the gateway of New York's border, to come in here and profit off of our land and our resources, these questions better get answered.

Senator Andrea Stewart-Cousins joined us. And I know she'll make a few marks, I'm certain.

And, Senator Krueger.

SENATOR KRUEGER: Thank you.

Hi. I'm Liz Krueger, and I'm here from

Manhattan. And I've been working on educating myself around the risks of hydrofracking, now, for several years.

And I'm here to say that the City of New York is almost universally in agreement that the State should not rush forward with hydrofracking. And, in fact, in the Governor's plan, there will be no hydrofracking in the New York City reservoir areas, nor the Syracuse reservoir areas.

But, that's not satisfactory.

Simply saying, "Well, we won't put the water for New York City at risk, but we can ignore what the questions are for the rest of the state," is not acceptable.

It's not acceptable to me. It's not acceptable to the people of New York City.

I hear, over and over again, from advocates for the environment, from activists throughout the state of New York, that they're really scared.

They've seen what happened in Pennsylvania. They've read the newspaper stories. They've heard about the industry being caught lying. They've heard about the federal government burying some reports that aren't so favorable to hydrofracking.

And they're asking us, as state legislators,

they're asking us as their state government, to do more than our due diligence. To, cross every "T," dot every "I," challenge every assumption, before any kind of permitting goes forward in New York State.

I, in fact, am not convinced that there is a safe way to do this at this point in history.

I'll accept the fact that technology keeps moving forward, and we might find ways to do hydrofracking or some other model of removal of natural gas from below the Marcellus Shale in the future that doesn't pit our communities at risk, our air and water at risk, our farm land at risk.

But, based on all of the research I've done, I don't believe that model exists yet. And, so, I'm not supporting New York State going forward with any permitting at this time.

And I just want to --

[Applause.]

SENATOR KRUEGER: Thank you.

-- reinforce what Senator Ball said, when he pointed out, the industry was invited to this hearing. He made it very clear to me that the industry was invited.

If they've got nothing to hide, why do they

never show up to testify on their own defense?

[Applause.]

SENATOR KRUEGER: Look at all of you, you're here today.

[Applause.]

SENATOR KRUEGER: So, I look forward to hearing from all of you.

And I wish that there was a more honest dialogue taking place with the people who are pushing for New York State to allow hydrofracking to take place.

Thank you, Senator Ball.

SENATOR BALL: Senator?

SENATOR STEWART-COUSINS: Thank you.

Good morning, everyone.

I'm Senator Andrea Stewart-Cousins.

And, I'm just a little south of Senator Ball, and a little north of Senator Krueger, but, I think that the sentiments that have been expressed by my colleagues have been quite eloquent and quite on point.

Again, Senator Ball, I thank you for hosting the hearing.

When I was driving up, I was telling someone who I respect a great deal, that I was coming to the

fracking hearing.

And she said to me: Well, you know, I think that, you know, there's been such a great increase in the technology, and it's not like it was before. It's much safer now. And they go through so many different things to make sure they protect the water and the area.

And I said: You know, maybe you should come to testify, because, the people who you're getting this information from, apparently, are depending on, you, who have no knowledge -- smart lady, wonderful woman -- but no real knowledge. But, I, guess they're depending on "you" to tell "us" that everything's okay.

And I said: The fact that they're unwilling to come, to tell us how everything has improved makes me, not only suspect, but extremely concerned.

I have always been a legislator that has been willing to listen to all sides before I rush to judgment.

I certainly support the moratorium. And certainly support the identification of what you're talking about is in these fracking fluids.

I want a longer time period for discussion on the DEC.

[Applause.]

SENATOR STEWART-COUSINS: 60 days is not enough.

So -- but, but, but, I'm wanting all that, because I want like you want: to be educated, and assured.

And when we come to a hearing like this, and the side that is discussing how beneficial this is going to be, how it's going to be a win-win-win, isn't represented, I think it is really sad because it was a missed opportunity. And, of course, allows us to continue to say, you know, "No frackin' way."

But, anyway, I look forward to hearing from you.

SENATOR BALL: Okay, well, thank you very much.

And, we're going to get started.

I do ask, that, if those who are in attendance can just make sure that we maintain complete decorum, so we can get through this, and pay the most respect to those who are speaking.

So, without further ado, Robert Moore, Environmental Advocates of New York.

Thanks.

ROBERT MOORE: Thank you very much, Senator.

And thank you, Senator Krueger and Senator Stewart-Cousins, for also attending this very important public hearing on the -- one of the most pressing environmental issues, and one of the most pressing, I think, economic and community-development issues facing New York State today.

In addition, thank you for inviting the other panelists here today. They represent a great number of experts on these issues; the various aspects of hydrofracking that are going to impact New York State, potentially, and also concerned members of New York State's advocacy community.

I am Robert Moore, the executive director of Environmental Advocates of New York.

Our mission is to protect the air, land, water, and wildlife, and the health of all New Yorkers.

We're based in Albany, and we are well known within the state capital.

We monitor state government, evaluating proposed laws, and championing the policies and practices that will ensure the responsible stewardship of our shared environment.

Today, based on the gas industry's record in

Pennsylvania, Texas, and the many other states where it has deployed fracking, Environmental Advocates has well-founded concerns about the ability of the gas industry to frack without putting our communities and our waters at risk.

We're also very concerned about the ability of a depleted state environmental agency to properly oversee an industry known nationwide for playing fast-and-loose with the rules.

We also remain deeply concerned that New York is poised to allow fracking to occur before developing the proper laws, rules, and regulations, and enforcement resources, to oversee an industry whose activities could grow exponentially once it is allowed to begin operating within our state.

Many of the others testifying here today can speak to the risks associated with fracking; the negative impacts it could have on air and water resource and the questionable economic benefits to local communities.

I will, therefore, like to -- would like to focus my testimony on the problems we see with the process by which New York seems to have embarked upon to rush to approve gas drilling, as well as share with those here today, some background on the

activities of the recently convened Fracking Advisory Panel to the Department of Environmental Conservation, which I currently serve upon.

Let me first start by reminding those in attendance, that Governor Mario -- excuse me --

[Laughter, and applause.]

ROBERT MOORE: Although I'm sure Governor Mario Cuomo would also agree with this statement, but Governor Andrew Cuomo has repeatedly said that he would only allow fracking in New York State if it could be done safely.

He has also said that he intends for the State's actions be guided by the best available science.

However, as we sit here today, the Governor and his administration seem to be deviating from that course.

At the urging of the Governor's office, the DEC released in July an incomplete revision of its plans for allow hydrofracking. This document, so eloquently known as "The Predraft Supplemental Generic Environmental Impact Statement," and for the sake of brevity, I will simply refer to this as "The Administration's Draft Drilling Plan" today.

The Cuomo Administration's draft drilling plan has improved from Governor Paterson's original plan, but still contains many flaws. Some of these flaws are highlighted in a document that I have attached to my testimony today, which was a press release from Environmental Advocates and many other organizations represented here today, of the ten, kind of, top fracking flaws we saw in this preliminary draft.

Others will speak more directly to these flaws associated with the draft drilling plan and the inherent risks associated with fracking.

DEC Commissioner Joe Martens has stated that the official public comment period for the administration's draft drilling plan will begin at the end of this month.

I would guess, it would probably be the Friday before Labor Day, if past timing of public-comment-periods starts is any indication.

Pending the completion -- this is also pending the completion of an analysis of the socioeconomic impacts that will be incorporated into the final plan.

It is the Administration's intent to only allow a brief 60-day public comment period on this

highly technical 800-plus-page document.

A 60-day public-comment period is holy inadequate, and we are asking for a 180-day public-comment period, as many of the people here today have called for --

[Applause.]

ROBERT MOORE: -- as have many of the public officials that we are speaking with today.

This would allow the public, members of the legislature, and anybody with a vested interest in clean water, clean air, and our local communities, to make sure they have adequate time to review the draft drilling plan.

Natural gas has been trapped in these shale deposits for millions of years, so a 180-day comment period is not going to impact the amount of gas that can -- continues to be contained in these shale deposits; nor will it impinge on any reputable company's ability to extract it if New York decided to allow them to move forward.

On a separate track from the review of the draft drilling plan, is also -- are the deliberations of the DEC's Fracking Advisory Panel, which as I said before, I'm a member of.

It had its first meeting last -- just last

Thursday.

And the charge of this advisory panel is to:

One: Recommend what resources and staffing are necessary to provide proper oversight of the gas industry, should Governor Cuomo decide to move ahead with fracking;

Two: Recommend how the state should pay for the dramatic increase in the Department of Environmental Conservation's resources and staffing, to carry out that plan;

And, three: Recommend how the state could generate revenues from natural-gas drilling, and pass some of these revenues back to local communities.

The Fracking Advisory Panel is being asked to make these recommendations before November 1st. These recommendations will then be used to advise the Governor's 2012-'13 Executive Budget proposal.

And, therein lies the major problem with the task before the Advisory Panel.

Once an executive budget is proposed in January, probably before the end of the requested 180-day public-comment period, and partial review of public comments, and any alteration of the administration's drilling plans, becomes extremely

difficult.

Drilling, perhaps, becomes inevitable, and the approval of permits for drilling almost predestined.

The reason for this, is that, once the state includes a proposal for generating revenues from fracking in the state budget, there is also a plan for spending those monies.

If the DEC later determined that there's a need for further study, a need for additional investigation, or that permits could not be issued before a more detailed statutory guidance or regulatory guidance were developed and adopted, the state financial plan would then be in deficit. There would be a hole in the state budget, and budget cuts would then have to be implemented in order to account for the lack of revenue from not issuing fracking permits or not collecting receipts on a production tax or severance tax.

Put more simply: If Governor Cuomo's next budget includes revenues associated with fracking, he's simply counting his chickens before they're hatched.

Doing so would, in effect, put tremendous pressure on the DEC to simply approve the

Administration's drilling plan without further review, without further investigation, without further consideration of policy options.

In other words: Planning for the state to make money from fracking could take the decision on whether to allow fracking, as well as, when to allow fracking, and under what conditions fracking might go forward, out of the DEC's hands in many ways.

Environmental Advocates has clearly stated this concern to the Fracking Advisory Panel, and feel it is premature and completely inappropriate to make a formal recommendation on fracking revenues until the right policies are in place.

We would urge the State Senate to reject any budget proposal that includes state revenues from hydrofracking.

The other two questions before the Fracking Advisory panel concern the DEC itself, and how it is funded.

It is important to remember that the DEC has fewer staff today than at any time since Governor Mario Cuomo was in office.

Since April of 2008, the agency has now lost 20 percent of its staff. And its budget for activities, like, field inspections, air- and

water-quality monitoring, drinking-water testing, and wildlife studies, and many other activities, that are central to regulating fracking and pollution of all types, as well as just monitoring, the environmental condition, environmental health, of the state, those budgets have been slashed by 50 percent.

This is an agency in crisis, and unable to fulfill many of its already-existing responsibilities.

For this agency to be able to have adequate staff and resources available to oversee a massive expansion of fracking in New York State, and the enormous expansion of DEC responsibilities that would accompany it, it would not surprise me if DEC would need a short-term doubling of its resources.

Last week, the Fracking Advisory Panel received a briefing from agency staff on the scope of the potential increased responsibilities, should the Administration's drilling plan be finalized. And, the scale of the task before them is daunting to say the least.

Hundreds of new DEC staff would need to be hired in the next two to three years in order to meet the projected demands for drilling permits.

On the technology front, the agency is using antiquated databases and some of the best technology from the 1980s for tracking and issuing pollution permits of all types.

And, these would need to be completely replaced in order to handle the magnified workload that would be presented if we moved forward with fracking.

And, the agency does not have the equipment or manpower necessary to monitor air- or water-quality impacts associated with fracking. Indeed, it does not have adequate resources to monitor the current condition of the state's air quality and water quality.

I could go on and on with examples of just how unprepared the DEC is to take on this task at present.

And, this is but one of many agencies that needs to oversee aspects of hydrofracking.

The Public Service Commission is going to see an enormous jump in proposals for the citing of natural-gas pipelines.

We've had absolutely no discussion of what additional resources that agency is needing to get.

The Department of Transportation, we already

know, is looking at very severe problems with maintaining roads and bridge infrastructure in the state because of increased truck traffic associated exclusively with hydrofracking.

That information was displayed in a memo from the Department of Transportation that received press coverage not too long ago.

There are many agencies that need to be brought into this process, and to the best of our knowledge, haven't even been engaged yet.

It's imperative that Governor Cuomo also look more carefully at the impacts fracking would have on the workload of a broader state and local government agencies.

In closing, let me remind those here today, that Governor Cuomo has committed to the people of New York State that fracking would only be allowed if it could be done safely.

He did not say that it would be done as safely as DEC could regulate it with its current resources or with available resources.

He did not say it would be done as safely as was cost-effective for the gas industry.

He said, he would ensure that New Yorkers would be safe.

However, the process that New York is about to embark upon does not seem to be completely consistent with the Governor's earlier pledge.

A case in point, is that administration is now proceeding before the release of a nationwide U.S. EPA study on fracking's water-quality impacts. That study will not be completed for at least another year, according to officials from U.S. EPA's regional administrative office, which I talked to on Friday. Yet, the Administration is pressing ahead without the benefit of this science.

And this completely contradicts the Governor's assurances that science would indeed guide this process.

Moreover, as I stated earlier, the State is already seeking to determine what revenues it might bring in from fracking, and what portion of those revenues might be shared with local governments.

This is clearly putting the cart before the horse, as it is entirely inappropriate to be planning on revenues coming into State coffer's before we have completed the process of determining, if fracking will be allowed at all, and under what conditions it might be allowed to move forward.

We have exactly one chance to get this right.

Every state that has preceded New York and allowed fracking to move forward has failed to get it right.

For New York State, there is nothing to be gained, but there is much to be lost, by rushing to a conclusion and opening up our borders to fracking.

I'd like to thank the Senator for convening this meeting.

And, thank you all for attending as well.

[Applause.]

SENATOR BALL: We'll open it up to questions.

SENATOR KRUEGER: Thank you.

Rob, I also share your position that we should extend the comment period. But, even more concerning to me, is an understanding that the DEC has indicated they would begin the process of approving fracking permits before it completes its formal rule-making process.

Can you help me understand why they would do that?

ROBERT MOORE: Yeah, it's a bit of a procedural question.

Originally, the Department of Environmental Conservation intended to issue permits strictly under its authority under the State Environmental

Quality Review Act. It would issue an environmental impact statement, and then issue permits in accordance with that impact statement.

However, in the new drilling plan that was made available in July, the agency has indicated that it will issue permits under that impact statement once it's completed, but it also recognizes the need to develop formal regulations.

This creates, in legal terms, what could be an unequal playing field.

The public could be served differently by the permits that were issued under the impact statement than the permits issued under the regulations.

The industry could be served differently. They might get a more stringent deal under the regulations than they would get under the impact statement. You know, the regulations might provide for more environmental protections than the impact statement currently does.

The Agency has not been able to tell us what aspects of the impact statement would be codified in regulations, and what parts would just simply be part of a generic permit.

So, this seems to be a big problem that I think the agency is going to need to address.

What they should do, is simply develop, over the next year or two, a full regulatory proposal, that's informed by the impact statement, before even considering issuing permits.

SENATOR KRUEGER: Thank you.

Can I ask one more question?

SENATOR BALL: Yes.

SENATOR KRUEGER: Thank you.

Thank you. Just one more question. I know we have so many testifiers today.

So, you talked about, and most, I think, of us here in this room understand, that the growing concern is the hazardous wastewater that comes out of the hydrofracking process.

And despite the problems we're seeing with toxic wastewater and solid wastes across the country, the State is still proposing that contaminant-laden, potentially radioactive drilling and fracturing fluids, mud-drilled cuttings, pit liners, flowback water, and produced brine be classified as "non-hazardous industrial waste."

And I'm just wondering, how is that nonhazardous?

ROBERT MOORE: I -- you would have to ask somebody at the DEC how they came to that

conclusion.

I completely agree with you, Senator, that, you know, these are materials that should not be disposed of as non-hazardous waste.

SENATOR BALL: Well, Rob, let's just get to the point. I mean, what's going on here? You know firsthand; right?

At the end of the day, you have an industry that was able to benefit from a Halliburton loophole in the previous administration.

Now, in this Administration, under Obama at the highest levels, they seem to have, you know, great hooks as well. The industry doesn't even feel like they have to show up to hearings.

What's happening with this governor? What's happening with the Second Floor? And, what's happening with the Administration?

Why are they able to just -- if you look at the loopholes that have been opened up -- and I can drill down that question that was just asked by Senator Krueger -- is about eight hours of deep questions that should be asked in this state, and need to be answered, before we can even get close to saying that this can be done safely.

So, from our perspective: You must have

inside knowledge. That, this is your job; you do this every single day. This is your issue; this is Issue Number 1.

Are they getting a free pass here?

What's going on with the industry, and the executive branch in this state?

ROBERT MOORE: Well, first off, Senator, I appreciate you pumping up my credibility before I answer.

[Laughter.]

SENATOR BALL: Number 1.

ROBERT MOORE: I really do appreciate that.

Second off, you know, I have become quite fatigued by hearing the industry's calls for, they're losing money because fracking isn't occurring in New York State.

I've become quite fatigued by landowners who are talking about: We're losing money because we don't have fracking going forward in New York State.

The fact of the matter is, the gas industry has gotten exactly what it asked for, when it got Congress, in 2005, to pass the Energy Policy Act, and exempt them from federal Clean Water Act standards and federal Safe Drinking Water Act standards.

They did that, knowing, that they would have a much friendlier reception from state regulatory agencies that would --

SENATOR BALL: Can you just back up on that point? Because, I know most of the people here understand it, but, for the media that's here, explain why we're here, as State representatives, drilling down into these discussions, and asking for answers that should have been answered at a federal level.

Go back, and explain exactly that Halliburton loophole, and why, state after state, they've been able to roll out the red carpet. And, New York's next on the chopping block.

ROBERT MOORE: Sure.

In 2005, Congress was -- passed the Energy Policy Act, which, in addition to giving -- well, it did a lot of bad things for the energy policy of this nation. But, one of the things it did, was it exempted the natural-gas industry from controls that had been in place, since the 1970s, for adhering to water-quality standards, discharge standards, for their activities.

It basically removed U.S. EPA oversight, and the delegated oversight that's granted to states

under the federal Clean Water Act and under the federal Safe Drinking Water Act.

The reason the industry wanted to do that is not very hard to figure out. It means less regulation, less oversight, less scrutiny, of their operations.

They also knew that it meant that regulation of their industry would then, basically, be only at the state's discretion.

If you look back in 2005, where the areas of most intense natural-gas drilling, you find it in pretty resource -- you know, states that have history of being close to the resource-extraction industry: Wyoming, Louisiana, Texas, a little bit of Arkansas.

So, they knew that they would get a much better deal from those state regulatory agencies. That they -- there was already a relationship there. They wouldn't have to get pushed around too much, or adhere to a -- be held to a higher standard. If anything, they would be held to a far lower standard.

Their plan worked really well, right up to the point they got to New York State, where they don't -- where New York doesn't have such a history

with the oil and gas industry. We don't have any coal mining here, to speak of. We just don't have a history of extractive industries, so we weren't quite, I guess, as easily taken in as Pennsylvania was, also, with a long history of extractive industries.

So, the industry, as I said before, got exactly what it wanted; it got a pushover in all the other states.

But, New York, being one to question these things a little more seriously, has given a lot more scrutiny of the industry, and is now moving -- had been moving in a direction towards tighter enforcement.

You know, in the last couple of months, it is -- it seems that the Governor's resolve may be weakening.

The Governor has stated before, that, this would only happen if it could be done safely.

Suddenly -- the Governor had also been very careful, I think, in the campaign, and in his first few months in office, of making sure that the DEC was left to ponder this, and to consider the alternatives, at its own pace.

That changed in May, when a memo from the

Second Floor was found, to, basically, be directing the agency to -- [snaps fingers] -- kind of, wrap it up by July.

And that's -- and those events have brought us to where we are today; with the DEC proposing to put a draft environmental impact statement out at the end of this month; and, then, trying to rush, get some very serious budget recommendations in for the Governor's next budget.

SENATOR BALL: Okay.

Okay, thank you very much.

Thanks, Rob.

SENATOR KRUEGER: Thank you.

[Applause.]

SENATOR BALL: Dr. Barth.

DR. JANNETTE BARTH: Thank you.

My name is Jannette Barth. I'm a Ph.D. economist, and I have been conducting economic analyses and developing economic models for 35 years.

Thank you, Senator Ball, for organizing this hearing.

The gas industry claims that gas drilling in the Marcellus Shale will bring great economic prosperity to Upstate New York.

The gas industry is seriously misleading the public and our politicians. They ignore costs and exaggerate benefits.

There some are New Yorkers who desperately want to believe that shale-gas drilling will be a panacea to all of the economic woes in Upstate New York.

In reality, the region is likely to be even worse off in the long run if we allow drilling in the Marcellus Shale.

And, remember, that the Utica Shale, which extends to this side of the Hudson, will be next.

I have reviewed the frequently quoted economic impact studies, and I will explain the multiple reasons why the conclusions from these studies are exaggerated.

Before discussing the studies, however, there are several important facts to know.

Many of the jobs created are short-term and part-time. Many of these workers are imported from other states on a transient, non-permanent basis.

Some estimates in Pennsylvania, are that as many as 70 percent of the Marcellus workers are from out of state. Such transient workers send their wages to their families in their home states, to be

spent there, improving those economies, not here in New York.

The studies that claim a positive economic impact from gas drilling tend to be biased, dated, seriously flawed, or inapplicable to our region.

The studies funded by the gas industry ignore declines in other industries that are likely to result from a combination of pollution, a shift to an industrial landscape, and crowding out.

Examples of industries likely to be negatively affected include agriculture, tourism, organic farming, wine-making, hunting, fishing, and river recreation.

A thorough evaluation would include the impact analysis of potential declines in other industries.

The industry-funded studies ignore the fact that there will be damage to infrastructure, especially roads and bridges.

It appears that the taxpayers of Arkansas will have to pay more than $400 million of the road-repair costs resulting from drilling there.

The cost of drinking-water contamination and land, stream, and air pollution are ignored in the economic impact studies. The cost of mitigation is

ignored. And, so is the cost in terms of health.

The economic costs of treating birth defects and serious diseases are not reflected in any of the economic impact studies.

Costs to communities are ignored, including costs due to the increase demand on hospitals, police, fire departments, and emergency health services.

Likely declines in property values are ignored.

Reports indicate that some banks are not giving mortgages for properties with a gas lease, or even for properties nearby a leased land.

How can one sell a house if a buyer can't get a mortgage, or if the house has contaminated drinking water?

Also, some insurance companies are refusing to issue policies on homes with gas wells.

It was reported that, in Wise County, Texas, where gas drilling takes place in the Barnett Shale, the central real estate appraisal district decreases values of homes by 75 percent when a gas well sits on the land.

Remember, that if property values decline, so do property-tax revenues.

The industry-funded studies take myopic view. They don't address what happens when the gas is gone and we may be left with contaminated drinking water, pollution, an industrial landscape, a population with failing health, and vanished employment opportunities.

These studies use data that may be highly biased, as the data are provided by the gas industry. And they use a technique called "input/output analysis," which is not an appropriate standalone economic-modeling technique in this case.

While there are many factors that may distinguish one county from another, I took a look at some of the measures of economic health in gas-intensive New York State counties.

I've looked at actual data for the top ten gas-producing counties in New York State, for the period from 2006 to 2008.

This is, of course, conventional vertical gas drilling.

I compared the top ten gas-producing counties to five neighboring counties without gas wells.

The gas-intensive counties are not better off than the non-gas-drilling counties when you look at the number of families below poverty level, the

median household income, or unemployment rates.

It appears that the industry has been exaggerating estimates of gas production expected from shale.

Independent experts have shown that decline curves for shale-gas extraction are much steeper than industry claims.

In reality, the vast majority of the gas is produced in the very first year or two. So, the years of production, per well, are fewer in reality than what is assumed in the economic-impact studies.

Analysts have also claimed that reserves themselves may be overestimated by a substantial factor.

One analyst stated that the gas companies may have borrowed a huge amount of money, based on reserves, so they cannot pull out of the ground at a commercially viable cost.

Some analysts have gone so far as to liken this to the mortgage-backed-securities bubble.

So, if assumptions of levels of gas production and the number of years of production are greatly exaggerated, and put into an economic model, then it is quite obvious that the projections coming out of that model, such as employment levels, income

levels, and tax revenue, will also be greatly exaggerated.

The economic-impact studies coming out of Penn State University have used the exaggerated gas-production numbers provided by the industry; and, so, their conclusions are likewise exaggerated.

The Marcellus Shale Coalition, a lobbying organization for the gas industry, frequently quotes the Penn State studies, which they funded.

The Coalition claimed that 88,000 new jobs were created in Pennsylvania in 2010 due to Marcellus Shale drilling.

Publicly available Pennsylvania data showed that total job creation in the entire state was only 65,600. And, half of these jobs were in education and health, and the other -- and in leisure and hospitality.

The grandiose job creation claimed by the industry is not at all consistent with data from unbiased publicly available sources.

Official employment numbers out of Pennsylvania, as reported by the Keystone Research Center, show that the Marcellus core industries and ancillary industries, when taken together, created less than 6,000 net jobs between fourth quarter '07

and fourth quarter 2010. That's less than 6,000 new net jobs in 3 years.

So, again, the industry continues to mislead the public in order to paint a rosy picture so that they can help -- so that they can reap high profits at the expense of our environment, our public health, and our economy.

Independent, unbiased economic analysis reaches vastly different conclusions than do the industry-funded studies.

Headwaters Economics concluded that western counties that were not focused on fossil-fuel extraction experienced higher growth rates, more diverse economies, better educated populations, a smaller gap between high- and low-income households, and more retirement and investment income.

An academic study published in "Sociological Inquiry" concluded that unemployment and poverty worsened in mining counties in non metropolitan regions. It found that the highest levels of long-term poverty are in places where there was once a thriving extractive industry.

Very recently, a peer-reviewed article in the academic journal "Ecological Economics" concludes

that the industry-funded economic impact studies of shale-gas extraction are overstating the economic impacts, and it is very important to have accurate estimates for the functioning of the state economy.

Dr. Christopherson of Cornell University says that the gas industry is a speculative, high-risk, short-term industry. And that the shale play is likely to create a short-term boom, followed by a long-term bust.

The oil and gas industry has a record of booms and busts. Extractive industries are known for the boom-bust cycle.

Nobody disagrees that there will be short-term jobs.

Short-term jobs created will include: Jobs on drilling sites. And, ancillary jobs, such as truck drivers, welders, road workers, and hotel and restaurant workers.

The questions are:

How many are long-term, full-time jobs?

How many are good jobs?

How many of these jobs will be filled by local residents?

And, how long will these jobs last?

Also, with hydrofracking, we will see the

building of a vast network of pipelines; gas-company gathering lines and transmission lines.

I observed the spiderweb of pipelines when I visited Bradford County, Pennsylvania.

It has been pointed out, in both Texas and in Bradford County, that the potential of future development is destroyed in many communities because building cannot take place on top of or too close to pipelines.

Large winding spiderwebs of gas lines from drilling pads to transmission lines may very well prevent our communities from building and developing into the future.

The reality is, that the only parties likely to benefit in the long run, are the gas companies, and a very few lucky landowners.

The economic impact is unlikely to be worth the risk of the potentially severe, and in some cases, irreversible consequences, in the form of health, environmental, and infrastructure degradation.

Gas drilling in the Marcellus Shale may well result in a net negative economic impact for New York.

Thank you.

[Applause.]

SENATOR BALL: If I can just -- I'm honestly going to ask, (a) I need my phone so I can track time. That's number one.

Number two, I need everybody to keep it to a minimum. And that means, no clapping, no noise, so we can get through it.

[Groans from audience members.]

SENATOR BALL: Well, folks, we're going to be professional. We're going to hold a hearing. It's not a pep rally. And, we need to hear, and move forward, to take full respect of everybody's time.

I think that's very simple to ask.

Okay? Thank you.

Ma'am?

SENATOR KRUEGER: You know, what, Dr. Barth? I think your testimony is so critically important. And, I'm going to follow up, rather than take the time here at the hearing.

But, I will just say, that the one argument that is constantly brought to me when I make explicit that I don't think New York State should go down this road, is that I'm not understanding the economics of what a win this will be for our state.

And, so, I just want to thank you for doing

independent analysis here for us today, about how the industry studies, arguing that it's a win for the State of New York, can, in fact, be refuted with science.

That is incredibly important.

So, thank you for being here today.

DR. JANNETTE BARTH: Well, thank you for saying that.

I do think that the big problem we have here, is that the industry has a lot of money, and they buy PR advertising, they make political contributions, they spend a lot of lobbying. And they also buy economic studies.

SENATOR BALL: On the point with the -- what we've seen, at least in Pennsylvania, on my brief tour with the landmen, and their ability to go out into these communities and wrap up property well in advance, what is the activity that we're seeing on tying up property, at this point, in New York?

DR. JANNETTE BARTH: I know that, at one point -- I may not be the most knowledgeable on this, but I do know that, at one point, there was a lot of activity with landmen coming. And, then, when the moratorium started, the landmen kind of slowed down a bit in New York.

And I think there are other people here that would -- could answer that question better than I.

SENATOR BALL: And, then, on the infrastructure front, have we also seen -- I know, in some instances in Pennsylvania, the industry itself is paying for the maintenance in various infrastructure in some of the local areas.

It seems like, you know, you see where there's devastation, on a microlevel, whether it be, communities, or even on individual properties, but the industry itself also seems to be pretty good at going into a community -- and I'm not going to -- you know, I have to use my terminology properly -- but, investing money in those communities, and making friends amongst, you know, local town boards or local small businesses.

We've seen one instance, where a local community had their water contaminated. And then they actually had a group of local small businesses that ran a PR campaign against them, as if they were the bad guys for having their water contaminated.

Do you see the industry itself actually investing in local infrastructure?

DR. JANNETTE BARTH: Well, yes.

I visited, I had a good long tour, of

Bradford County. And I did see the industry -- claims, that the industry was paying for road repair.

And, I think that is wonderful.

However, it's still -- we're still in the very short term in Pennsylvania. And I think we should wait, and observe, what happens over the long term.

We know that Arkansas has had drilling longer than Pennsylvania. And as I said in my remarks, the taxpayers are getting stuck with over $400 million worth of repairs on state roads. And that doesn't even include county and local roads.

SENATOR BALL: And that's direct from the industry, that $400 million? That's been calculated as an impact --

DR. JANNETTE BARTH: That, I saw in a newspaper article in Arkansas.

The report from -- the total damage reported from the Arkansas State Highway Department was $455 million.

And, Arkansas -- which I might note, has a severance tax, and we do not -- was not even able to raise enough money from the industry to pay for all of that road damage.

SENATOR BALL: And, then, on the -- you talked a little bit about individuals who have fracking platforms or activity on their property, not being able to borrow against a property.

We heard some of that in our tour, and just in our communications.

Has that been verified? That, the industry borrowed, something like, $14 billion. And individuals, private property owners, have gone to the bank and been told that they can't borrow because the industry itself has already borrowed against their property?

Has that been --

DR. JANNETTE BARTH: I would love to have that source, if you could send it to me.

[Laughter.]

DR. JANNETTE BARTH: I haven't seen that myself, but I have seen various reports from -- you know, quotes from various bank people, that say they're not willing to give mortgages on some of these properties, to homeowners.

I haven't seen the information about the industry borrowing.

SENATOR BALL: Okay, thank you so much.

DR. JANNETTE BARTH: Thank you.

SENATOR BALL: Next, we have Craig and Julie Saunter.

And, Victoria.

Victoria?

VICTORIA SWITZER: Uh-huh.

SENATOR BALL: Okay.

We are providing lunch, but --

[Laughter.]

VICTORIA SWITZER: Good morning.

My name is Victoria Switzer. I am a retired school teacher, currently engaged as an accidental activist.

I begin with my most recent experience with Senator Ball, whom we had the honor of meeting with few week ago in an informal setting. Residents of the now infamous Dimock met with the Senator.

We shared our information and offered our stories. We did this out of our concern for others: for New York.

It is our hope, that by exposing our tragedy, others will not succumb to our fate.

Senator Ball listened carefully to each of our voices.

Personally, I believe him to be seriously concerned about the downside of gas drilling.

He asked insightful questions, and appeared to be genuinely distressed by our anguish.

It wasn't until he asked, "None of you environmentalists before the drilling, were you?" that I felt exasperated and overwhelmed again.

It's been a long haul in Dimock.

When did our concern for the environment and the protection of the quality of the natural environment become something bad?

When did it become un-American to want to preserve clean water, air, forests, and wildlife?

The environment is not a place we visit. It is our home. It is precious, and it is finite.

We are either its caretaker or its taker. Or, possibly, with thorough investigation, an intelligent balance of both.

Already, there are numerous studies available for you to read.

The University of Pittsburgh Graduate School of Public Health produced its results in August of 2010.

Carnegie Mellon University and Pittsburgh Sewer Authority found gas drilling contaminants in drinking water, in their April 19, 2011, study.

Documented water contamination is not a fairytale dreamed up by those environmentalists. If you want to see the information, it is out there.

The number of families existing on replacement water in drill zones is a bit harder to find.

The water buffalo, and not the African mammal, is alive and well in Bradford, Tioga, Washington, Susquehanna Counties, and more.

Every day the numbers grow. No fear of extinction of this animal.

Pennsylvania has thrown caution to the wind, and is bent on repeating the same destructive behavior of the Coal Era.

Our fate is sealed.

Our elected officials have decided to allow the gas industry to control the outcome instead of the state leading the development of the Marcellus Shale.

The tail wags the dog in Pennsylvania, and that dog don't hunt.

We have opened our doors; more exact, our woods, our streams, our communities, to an industry that has been reckless and arrogant.

To date, we gave it away.

Seventy-one natural-gas wells are in production in our area around my home.

Of the 43 gas wells that have been tested in the Dimock area, 22 have been determined, by DEP, to be defective, insufficient, improperly cemented or cased, or other defect.

SENATOR BALL: Can you repeat that number?

VICTORIA SWITZER: Of the 43 gas wells that have been tested in the Dimock area, 22 have been determined, by "DEP," our Department of Environmental Protection, to be defective, insufficient, improperly cemented or cased, or other defect.

I ask: Would you care to enter into a partnership with an industry with that track record?

Flip a coin, 50/50, we drill and you don't drink.

Acceptable odds, collateral damage, just part of the deal.

I think not. And, I think you would not care to participate in that experiment either.

In every direction from my home, families are living on bottled or replacement water. A few have accepted treatment systems.

This is the water, after a treatment system.

[Speaker demonstration.]

CRAIG SAUNTER: Most of them, if not all, are still drinking bottled water.

In my home, we use bottled water for drinking, cooking, hand-washables, hand-washing, pets, plants, and a removal of contacts, teeth-brushing. We have our own filtration system for shower and laundry. And, live with much anxiety concerning what is in that water, daily.

We have seen water tested show ethylene glycol and toluene, and two or three unknown chemicals.

Our methane spiked to nearly 12 percent, and has since receded.

Methane is the least of our worries.

A chemist told me, the chemicals in my water in April of last year, would defat my skin.

And I do not mean in a good way.

[Laughter.]

VICTORIA SWITZER: Recent testing does not show these chemicals.

The gas company pronounces my water as safe to drink.

Does that give me piece of mind? Not at all.

It only makes me wonder: When?

To be safe, we would have to test daily. Fractured rocks have been fractured.

When the gas company returns, will we be safe?

New York has an opportunity, and a challenge. You can determine your fate. You can decide which way this goes.

You can protect your beautiful forests and lakes. You can secure the drinking water of your residents.

You can tell the private gas companies that this is not Texas. This is, your home, your environment, and at no cost will you allow them to exploit it.

You will not get any second chances. There is no restoration of the aquifer.

There is not a gas lease in the world that tells you how they will bring back your drinking water. It is a myth.

If you believe that drinking water should be a once-a-week delivery, then you have truly forgotten what made this nation great: our resources.

It is your duty to protect your state.

My state has failed me.

Please do not forfeit your most precious resource: water.

The first official hearing I attended was in 2008, with Republican Senate majority, led by Senator Mary Jo White. It was not a fact-finding hearing. It was simply a form for the gas industry to threaten the elected officials that they would go elsewhere if we made them follow too many rules.

They whined about our regulations.

A gas-industry spokeswoman held up a thick pile of papers for proof: It would be too hard to drill in PA, and they would have to go back to West Virginia.

It was a debacle I will never forget.

I sat in the back of the room, and watched the gas boys high-five each over their good fortune to find such an accommodating state.

This hearing, I believe, is very different. I believe you are here to learn more about the dangers of gas extraction.

I pray you are serious about getting the information you need to determine whether the risks outweigh the benefits.

SENATOR BALL: Thank you.

Victoria, if we can -- if I can just -- because I think it's important, if we can just drill down on a couple of things that you said, if you don't mind? Is that okay?

When we're talking about -- well, first, do you have fracking platform on your property?

VICTORIA SWITZER: No.

SENATOR BALL: Any act- -- so you're --

VICTORIA SWITZER: I have three gas wells, one around me, not on my land. They border me.

I have one, 710 feet; one, a little over than 1,300 feet; and another one, a little over 1,400 feet.

There are 63 wells in the area. I can walk to all of those wells.

SENATOR BALL: And, Craig and Julie, it's same thing. I know you're going to speak.

But, it's the same thing; you don't have an active fracking platform, or any platform, on your property. All your water has been contaminated.

Where do you get your water from?

I know you went into detail, but, where are you getting your water from right now?

VICTORIA SWITZER: Water is delivered every

week by a subcontractor for the gas company.

SENATOR BALL: The gas company that contaminated your water is now delivering water, through a subcontractor, for your families to drink?

VICTORIA SWITZER: Yes.

SENATOR BALL: And it's in -- it's in a huge -- explain exactly what a "water buffalo" is.

VICTORIA SWITZER: I don't have a water buffalo in my yard.

I have all bottled water: large containers, small containers.

We didn't take the water buffalo, simply, in the beginning, because our problem was methane.

Later, when we had additional contaminants, we requested one. And we haven't received one yet.

So, we are playing a serious, dangerous game, with showering and laundry at our home.

SENATOR BALL: And the industry has -- have they taken responsibility for contaminating your water?

VICTORIA SWITZER: No, they have not taken responsibility.

In fact, I'll give you the consent order here.

They deny the findings of DEP. They refuse

to believe them. They will not comply with the consent orders. And, they are getting away with it in my hometown.

SENATOR BALL: So, they deny responsibility, but they are, just happen to be in the water-delivery business.

VICTORIA SWITZER: Well, you know, push comes to shove, we kind of forced that issue when we went public.

We refused to be quiet, and that's why we got water --

SENATOR BALL: Your water was tested in advance of that platform being put in?

VICTORIA SWITZER: Oh, before drilling?

SENATOR BALL: Before the contamination.

VICTORIA SWITZER: I had a drill -- i had a pre-drill done. Spur of the moment, I asked the gas company for a water test, I heard, because they were going to start drilling the following week.

And Penn State had said: You need a pre-drill.

And I called the gas company, and said: Look, I need a pre-drill.

And they said: No, no. You're just a worrier. You don't need a water test unless the gas

well is going to be on your property.

SENATOR BALL: Oh.

VICTORIA SWITZER: I did have a test done. It wasn't full-scope, because, at that time, in 2008, was it, we didn't know what to have tested.

And that's still the problem; because, I can have my water tested, but things aren't going to just show up. I have to know what I'm testing for. I have to know I'm testing for "that," to get that test done.

SENATOR BALL: And in the instance of fracking fluid, it's proprietary information?

VICTORIA SWITZER: Absolutely.

SENATOR BALL: Like McDonald's "special sauce."

VICTORIA SWITZER: Coke.

SENATOR BALL: Yeah.

Okay, thanks.

SENATOR STEWART-COUSINS: I just wanted -- when you say that it -- what is being delivered is, bottled water? Or, is that being delivered, or --

VICTORIA SWITZER: These are the containers that the water comes. Every week, the truck pulls in, and the boxes come out.

They will give us as much as we want. I

never run out, you know.

SENATOR STEWART-COUSINS: Okay.

VICTORIA SWITZER: They will, willingly, bring the water weekly.

SENATOR STEWART-COUSINS: But, is it the water that you've showed?

VICTORIA SWITZER: It comes in these -- these are -- this is what I wanted. I use these containers --

SENATOR STEWART-COUSINS: Right.

VICTORIA SWITZER: -- because they were -- feel --

SENATOR STEWART-COUSINS: No, I understand. But, when you shook them, things happened.

VICTORIA SWITZER: Oh, yeah.

SENATOR STEWART-COUSINS: I mean, is that what you get?

VICTORIA SWITZER: This is not the water they're bringing me now.

SENATOR STEWART-COUSINS: Okay.

VICTORIA SWITZER: This was my water last year --

SENATOR STEWART-COUSINS: Okay, before they started --

VICTORIA SWITZER: Yeah.

SENATOR STEWART-COUSINS: -- bringing you the water that they're bringing you, just because they want to bring you water. Not because there's --

VICTORIA SWITZER: They want to.

SENATOR STEWART-COUSINS: -- anything particularly wrong.

Okay. Thank you.

SENATOR BALL: Craig, Julie.

CRAIG SAUNTER: Hi. My name is Craig Saunter. This is my wife, Julie. We live in Carter Road in Dimock. And, most of you people know where Carter Road is in Dimock.

It's also known as "ground zero" for water-well contamination.

We had our water well contaminated in -- September 11th of '08. And, you know, you can't forget a date like that: 9/11.

We moved there in April of '08. So, it wasn't very long after that, a landman approached us, and we signed a lease. And, you know, 976 feet away was the well.

Within a month of drilling, we had a contaminated well.

Now, our contamination came during the drilling process of a vertical well. Not fracking,

and not a even horizontal well. So, you know, things can happen even before the fracking begins.

Now, we aren't experts; we're not water experts, we're not hydrogeologists. All we are, are victims of circumstances that happened, you know, when things go wrong. And that's all we are.

You know, we're not experts in the field, but we are experts in living with this for so long. Almost three years now.

And they -- their response for Cabot was, to purge my well. 500-feet deep, and they wanted to drain it, to see if it would clear up the well.

SENATOR BALL: And Cabot's the -- a drilling company?

CRAIG SAUNTER: Cabot is the drilling company in the area, yes.

SENATOR BALL: And they were invited here today, just so you know.

CRAIG SAUNTER: Oh! Okay. Hmm.

Well, they wanted to purge my well.

And I told them, "Don't do it. It's 500-feet deep. An old well pump, and everything."

They said, "Don't worry about it. We'll buy you a new one."

"Don't do it."

I come home, I had no water.

They purged it anyway, without my consent.

So, now I have no water in the house.

So, they scrambled around. Got a roll-back truck, put a water buffalo on it, and sat it in my front yard.

Now, what kind of spectacle is that for people that don't even have any problem with their well water in the area, and, all of a sudden, boom, there was a big truck sitting in your front yard, with a water -- you know, with a buffalo on it.

So, that's how we lived until the water started to freeze up.

One morning I got in the shower, it was froze. Had to go outside and kick it to get it going.

And, right after that is when they put filtration system in our house.

We used that filtration system for almost a year.

Now, it was an add-on system. They added this on, they added that on, until, finally, you know, almost a year later, they finally took it off because it was no -- it wasn't doing the job.

My wife ran out of water -- spring water for

the dogs.

Gave it to the dogs, and they threw up immediately.

Now, this is our well water.

And they told us; they called my wife on the phone, and said, "You will drink that water."

Now, they're not going to tell me that I'm going to drink the water, you know?

So, she said: Well, maybe it's just because they're Pomeranians; little dogs.

She gave the same water to a German Shepherd -- hundred-pound German Shepherd -- and he threw up right away.

Now, I mean, for it to do that, I mean, dogs are -- you know, they can survive a lot of things.

I mean, come on!

Now, we're -- and, you know, we couldn't even do that. So, thank goodness we never drank the water.

My daughter would get in the shower in the morning, and she'd have to get out and lay on the floor, because she thought she was going to pass out from the methane sucking the water out of it -- or, sucking the oxygen out of air.

Now, you know, we didn't know about it, but

she did this over and over again.

They had eczema on their elbows. Eczema up and down the legs. I mean, hives all over.

Now, you know, we never had that problem when we had the well water. Then, all of a sudden, you know, they started getting all these hives, and everything.

And they said: Ah, it's nothing. It's nothing.

You know?

And they tried to prove, in the beginning, that it was my fault. They tried more to prove that it was my -- a faulty well or pipes in my house causing all the problems.

And that was not right, you know?

So, then, we, after a year -- almost a year, Secretary Hanger promised us a waterline.

Well, so much opposition from the Enough Already group came in, yanked it out right from underneath us, and we were put back -- you know, they did away with it.

They said: We compensated you for the --

SENATOR BALL: Craig, I get -- just slow down for a second. I'm not going to kick you out. That's Rule Number 1.

Number two -- Senator Krueger may, but I'm not going to.

[Laughter.]

SENATOR BALL: But, let's just back up for a second, because there's a couple of things that you mentioned.

Number one: The filtration system itself -- the very same industry that did not take responsibility for contaminating your well -- who paid for that filtration system?

CRAIG SAUNTER: Cabot paid the whole bill. I didn't pay a penny for it at all.

The only thing I paid was, you know, the extra electric to run it. And I had to fight, for six months, to get that money back from that.

SENATOR BALL: So, they won't take legal responsibility for contaminating the 20-plus wells in your community.

CRAIG SAUNTER: True. True.

SENATOR BALL: But, they're providing everybody water.

CRAIG SAUNTER: Uh-huh.

SENATOR BALL: And they paid for the filtration system in your home?

CRAIG SAUNTER: Yes.

SENATOR BALL: Okay.

CRAIG SAUNTER: And it's still sitting there to this day.

And, I was told -- when they yanked the waterline from us, they said, that: We got you double the value of your house for your replacement water.

Well, they didn't tell everybody, it wasn't double the market value, it was double the tax value.

That is a big difference right there.

So, I called the DEP, and said: What would happen, you know, if I took that money?

Well, first of all, you got to pay tax.

SENATOR BALL: Explain the difference in the numbers.

Give actual numbers, as far as --

CRAIG SAUNTER: My house is worth about 200,000. So, if it would have been market value, it would have been 400,000.

They offered us, like, a hundred and -- or, 275,000. It was the tax value of the house; double that. That's all.

So --

SENATOR BALL: And you mentioned the

Enough Already group?

CRAIG SAUNTER: Right.

SENATOR BALL: Because, you're in New York.

CRAIG SAUNTER: Okay. All right.

SENATOR BALL: I mean, I want to understand what's going on in Pennsylvania.

But, what they need to understand, explain the genesis of that group: who started that group, and how they have pit the community against itself.

CRAIG SAUNTER: Okay.

It was a bunch of local businessmen and local neighbors, that got together, to fight us.

They told -- they got a group together, and they said: You guys cannot charge the gas company that much money for a waterline for so few people.

In other words: They didn't think we deserved the money, or the water.

SENATOR BALL: Most of those people that are members of that group, most of those businesses, were all subcontractors or contractors for --

CRAIG SAUNTER: Yes. Absolutely, yes.

In fact, the people that deliver us the water, is one of the supporters of this group.

Now, that's a conflict of interest if I've ever seen one, you know, right there. And he's

supporting -- you know, he's supporting this Enough Already group, and he's delivering us water.

How do we know what's going on with that water?

That's supposed to be State-certified water.

I have asked for certificates for it. I have yet to see one.

How do we know what they're doing with the water, or where they're even getting the water, because they don't tell us.

I mean, my tank has so much crap in the bottom of that tank, that, one day we didn't get water, and it started sucking this -- my daughter got up the next morning. Because the water level was low, sucked all that stuff off the bottom while she was in the shower. And, broke out in hives, from head to toe, for a week.

Bobby Kennedy was at my house, and saw it, and could not believe all that junk that was in the bottom of the tank.

That's tested. And we got test results on it. And it's not too pretty.

And we've had test results -- I mean, this is water, you know, it varies.

And, how can you trust a well like that when

it changes from -- you know, from one day to the next?

They want us to put a filtration system in our house.

I've gone that route already. I've done that already. I know what it's like to do that.

A water buffalo, it's a 550-gallon tank that used to sit in my garage. And, they would forget that they had the hose in it.

I'd come out in my garage, and there would be two or three inches of water on my floor.

SENATOR STEWART-COUSINS: Wow.

CRAIG SAUNTER: And guess who paid to get it cleaned up, and all the lost stuff? I did.

SENATOR BALL: Do you have -- can you talk a little bit about what was found in your water, as far as the list?

I know there was a list that was done --

CRAIG SAUNTER: Okay.

SENATOR BALL: -- the shirt.

If you can show the shirt that -- I hope you don't mind. Do you mind if I just...?

[Mr. Saunter stands, and displays his T-shirt.]

SENATOR BALL: This shirt has a list of the

chemicals that this family found in the water; all these families found in the water.

They did this. They put it on the billboard.

And the company actually -- the gas company actually had it taken down.

CRAIG SAUNTER: Well, it wasn't the gas company that had it taken down. That's what they told us, anyway.

It was the local landowner. They said it was too offensive.

[Inaudible comment by Julie Saunter.]

CRAIG SAUNTER: It was Enough Already people, you know.

Let me tell you one thing: They could --

SENATOR BALL: Two days after I left Pennsylvania, I got an e-mail from a worker, threatening me, to sue. And, it was very well written.

I don't think it was the worker that was threatening to sue me.

CRAIG SAUNTER: No. No.

SENATOR BALL: So, it's starting to all come together.

CRAIG SAUNTER: Right.

They can take that billboard down.

Let's see them take this one off of me, though. I'll tell you right now.

[Laughter.]

SENATOR BALL: Can you go through the list, and talk about the chemicals that are in your water?

CRAIG SAUNTER: Yeah. I mean --

You can read it. What is it?

I mean: There's aluminum. There is chloride. There's sodium. There's three types of uranium. There's barium. There's strontium.

JULIE SAUNTER: Arsenic.

CRAIG SAUNTER: Methane.

JULIE SAUNTER: Barium.

CRAIG SAUNTER: Arsenic.

JULIE SAUNTER: Acetone.

CRAIG SAUNTER: Acetone.

SENATOR BALL: Now, did you have a test done of your water before?

CRAIG SAUNTER: Yes. And it was by Cabot.

They did a pre-drill test, and it came out perfect. There was nothing wrong with it.

And you know what they said?

They didn't like the test results that came out there, you know. But, they paid for it.

But they -- to this -- now, when we put that

billboard up, we had press conference. They were there.

And they said that this billboard that we put up was nothing but a lie.

They said this was not my water. And I did not have that stuff in my well.

I have all the test results at home to prove it.

JULIE SAUNTER: These are Duke University results.

CRAIG SAUNTER: Right. These are from the DEP and Duke University test results. They had the same test results as us.

Now, they said: We have the latest-and-greatest test results, and we show that there's nothing wrong with your water.

So, we -- somebody invited the PR from Cabot, George Stark, to come to Dimock, to come to my house and drink the water.

"No problem. No problem. I'll go over there. There's nothing wrong with your water."

So, the news crew says: Can we go -- we'll -- "Can we tag along with you, and film you while you're drinking the water?"

He says, "I'm not going over there. That's a

hostile area."

SENATOR BALL: Ah.

CRAIG SAUNTER: Now, just because I got signs in my yard means it's a hostile area?

He's never been to my house.

How did you make accusation like that, you know?

I mean, we've been ostracized in the community.

We go around in the public, wearing these shirts. Nobody says a word to us, but they'll talk behind our backs.

And, then, when they start talking about my kids on the blog sites, that's when I -- you know, I get pretty upset. You know?

And, you know, we're just a victim. That's all we are.

And all we -- you know, they say we're greedy, and all this stuff, and we're holding out for more money.

That's not it.

We're holding out for clean water, and that's all there is to it.

There's the water. There's the proof.

How would you like to have water -- how would

you drink water like that?

They told me that's fine to drink. Nothing wrong with it at all.

Thank you.

SENATOR BALL: Thank you.

Questions?

SENATOR KRUEGER: Well, first up: Is anybody in Dimock able to sell their home, if they want to, at this point?

I mean, is there any property value, other than the company's potentially trying to buy you out because you're trouble-makers?

CRAIG SAUNTER: On one of the blog sites, one of our local neighbors said that we were offered $200,000 for our house by a local businessman, and we turned it down because we're asking for three to five million.

I think I would have known about it before them.

VICTORIA SWITZER: The property across from my street was for sale for $4.1 million. It's 60-some acres, and it had two active gas wells on it.

That's the asking price the landowner wanted.

It's just sold for $700,000, recently.

A family did not guy buy it. A corporation bought it, and now they're using it as an investment property and a rental. In fact, it's being rented by a gas worker.

The landowner that owned the land previously was part of the Enough Already group, and had put a large sign up in his yard, "No Waterline." And put lights on it, and it flashed in our bedroom window all night long.

He also made a commercial for the gas company, stating that it was a wonderful place to raise your children, Dimock was, and the water was fine.

And then he moved to Florida.

SENATOR KRUEGER: Thank you.

Thank you for your testimony.

SENATOR BALL: Thank you so much.

We have Craig Stevens.

Craig, how are you?

CRAIG STEVENS: Good, thank you, Senator.

Thanks for inviting me, Senators.

And, good morning to everybody.

My name is Craig Stevens. I'm a resident of Silver Lake Township, Pennsylvania.

I'm here today to offer my thoughts and

observations regarding the oil and gas industry's activities in northeastern Pennsylvania over the past four or more years.

My experiences started on April 30, 2007, when my father, Lloyd, died of cancer, and I became a part owner of our sixth-generation home and 115-acre property near Montrose, Pennsylvania.

I was not informed at the time, but on July 17, 2007, Chesapeake Energy sent a landman to my 95-year-old grandmother's Bernis's (ph.) nursing home, and signed her to a 10-year, 12 1/2 percent lease; for $135.10 an acre.

On November 24th, Chesapeake sold one-third interest of my leased property to Stat Hydro Oil from Norway, along with 32,000 other leases all over the northeast, for $3 billion.

In November I received a letter from my father's sister Eloise (ph.), that said, "As you are aware, a gas lease was signed on July 17th by Grandma Price."

She and my uncle owned one-third, each, of the property.

I was informed on February 2010 that my grandmother, aunt, and uncle had signed a pipeline agreement with Laser Midstream in January of 2010.

I went to see them. They were very excited to see me. They needed my brother and sister and I's signature, unlike Chesapeake, which obviously did not. They actually recorded my -- this lease of my grandmother's.

They needed -- they want to put the trunk pipeline in, that goes from Windsor, all the way through, for 33 miles, to Pennsylvania.

They were offering five whole dollars a foot; at a 60-foot-wide by 2,400-foot space. And, they said that's what all my neighbors took for that.

So, I said, "You're in the talking to my neighbors. You're talking to me."

Then they said that all my neighbors had signed.

They didn't know I called all my neighbors. And, for five miles to the west of me, not one had signed.

These are people trying to do business deal with me.

Then they said, "It's okay, because the State is going to give us a certificate of public convenience."

I said, "Do you mean eminent domain?"

"Well, we prefer to call it 'certificate of

public convenience.'"

So I said -- basically, I walked out.

Before I said, I said, "First of all, I don't do business with liars. You're lying to me about my neighbors. And if you think you're going to take my land without paying me for it, or my permission, you've got another thing coming."

I went to the PUC hearing that was held in the state of Pennsylvania; "Public Utility Commission."

This same company was trying to get -- called a public utility, so they could take the land for this pipeline and not even spend money for it.

I spoke. I was very clear.

Both CEOs of the company, Laser and Delphi Midstream, were in front of me.

And I said: At my home, I have a phone line, that, magically, I can pick up and talk on, that comes to my home. I have a power line. I have a cable television.

All these are public utilities that have a specific utility cost that cannot be raised without a hearing.

I said, "You do not provide anything."

As a matter of fact, in the hearing, these

gentlemen said that they will never be providing gas directly to anybody's location. It's going to go in that pipeline, and it's going to come right past you here, to New York, New York City or New Jersey, and it's going to be liquefied, and go overseas.

That is where it's going.

If you haven't looked lately, the price of natural gas at the well head is less than $4 per 1,000 cubic foot.

It was $12 less than two years ago.

The gas is not staying here, folks. So, when you watch these commercials, do not believe it.

I was approached by "Associated Press." They want to do a story on my signing by Chesapeake.

I allowed them to do it.

My story came out on Black Friday last year. That is the day after Thanksgiving.

It went: "You know that you've arrived."

That's an international story that went all over the world. You can Google my name in every country on this planet. And that was on the front page of the "New York Times," the "L.A. Times," "Dallas Times."

It's kind of interesting.

I showed up. Didn't know anything about this

industry. I found out quite a bit in the last year and a half.

I began speaking with the people that were just here, my heroes, Craig, Julie Saunter; Victoria Switzer. They have spent the last three years living in hell.

And all my neighbors -- 90 percent of my neighbors have turned their back on these people.

I refuse to do it. I wasn't raised to turn my back on my neighbors. They're in trouble, I'm here to help.

What I didn't realize was, sadly, the pipeline construction began about three months ago, going across, behind my property. Not on my property, but behind it.

And, they had a blowout in my creek, on July 29th, behind my property.

That blowout means drilling mud came up because they were trying to save the environment and drill underneath, 40 feet under.

Well, guess what? The drilling mud blew out on the 29th. Nobody bothered to tell me, and I didn't see any telltale in the creek.

That same night, the same drilling-mud company truck flipped over and crushed my neighbor

John Jones to death, with his 17-year-old daughter sitting right next to him in the car. She opened the door and got out. Her dad was dead.

Okay? That's my neighbor.

Three days later, they blew out again, on August 1st.

That blowout ended up -- that morning, my kids threw breadcrumbs to the baby trout that are in the stream.

I have an exception-value watershed trout-stocked stream. That's the highest valued watershed in the United States that you can be rated.

Four hours later, after they were throwing breadcrumbs, it looked like the Mississippi: "Old Muddy."

Nobody bothered to come and tell me anything. All of a sudden, there were trucks going everywhere, sucking mud out.

A week later, they blew out again, not being stopped by the DEP. They were fully involved in what was happening.

Keep drilling, baby. Keep drilling.

So, after that, we had the debacle that happened with the billboard that went up.

Three days up. We have a press conference. The next day, it gets taken down.

You can see what our rights as free speech are.

If you are pro the industry, you can buy any ad space you want.

If you're against it, wear it on T-shirt, folks, 'cause that's only the time you're going to see it.

I was very concerned about what was happening in the creek behind my house, so everybody that was at the billboard press conference came down with the cameras.

We filmed -- they filmed. It's on a township road. They couldn't have had this disaster for that company happen in a worse spot; on a public road, right underneath it.

This is a creek I grew up, coming here. I'm from California originally.

And, we could swim in it and fish out of it.

It was now completely demolished.

They've now had five blow-outs in the last 3 1/2 weeks, in the same creek. They were stopped for one day by the DEP, to talk to Secretary Cranser.

I guess they said things he liked to hear, because they continued drilling.

The video footage from my neighbor got on-line. Went completely crazy.

And on -- 7:30 in the morning on the Thursday after they had the blowout, two workers showed up at my house, pounding on the door, looking for "the lady with the gray hair that drives the red Prius."

That would have been my friend that keeps track of everything environmental.

I said, "No, she doesn't live here."

They asked for her number and her address.

I refused to give it.

They were coming, looking for her, because they had filmed -- she had filmed them.

I find it very scary. I called the police.

That went all the way to the district attorney of my county. They weren't very excited about have -- being -- our -- their citizens being hunted.

We all know the reasons that people want this industry here. The economic benefit is impossible to ignore. And I'm -- and -- but I'm going to teach the politicians out here how to keep their job, by

just adding one item.

This has to be safe, or these people have to pack up and go home.

The five generations that came before me passed clean water, fertile land, and healthy environment. And, thankfully, did not sell out their future for short-term gain.

I am confident, if, 100 years ago, my great-grandfather found -- if he found out that strangers were in town causing irreparable harm to their environment, he would have given them 30 minutes to pack up their stuff up and leave, or he would have solved the problem himself.

Luckily, they're dealing with people who are a little nicer nowadays.

When strangers come to town and start handing out $1,000 bills to people, that does not make them your friend.

Your friends are the people you grew up with, go to school and church with.

And, I, for one, am going to stand with my friends, and not turn my back on them when they -- when problems arise.

I hope you will agree to stand with your neighbors, not teach your kids that money is the

reason for everything.

Why work at McDonald's all week for a few hundred bucks, when I can steal or sell drugs and make ten times the money.

Please be careful of what kind of example you are showing your children because they are watching.

My eight- and seven-year-old boys know the answer already. They want to be able to live there in my seventh -- in their seventh-generation ancestral home.

I pray that you put your children and grandchildren's face on this issue, and think about what this will be like in, a year, five years, ten years, a hundred years, from now.

Thanks for this opportunity to share my thoughts with you.

And, I look forward to answering any questions you might have for me regarding this industry, and what I see in the future for all of us.

[Applause.]

SENATOR BALL: Lets wrap it up.

SENATOR KRUEGER: I just want to thank you for your testimony, and everyone who's living through this in Dimock.

On behalf of New York State, we appreciate you coming across the border, in fact, over and over again, to help educate us about the mistakes we can, and should, avoid, because Pennsylvania unfortunately, has not.

Thank you.

CRAIG STEVENS: Senator, let me tell you: This morning, I brought, all the Saunters, Brett, here. We drove across the bridge at Bear Mountain.

That's one of the most beautiful scenic areas I've seen in this state.

And, my mother was born in Oswego, New York, and is an Oswegonian.

I'm the fifth generation in New York, and I was the sixth generation in Pennsylvania.

You have gorgeous country here.

If anybody here wants to find out what your future lies with this, just come down and visit the people in Dimock, and my area, and you're going to find out, they can't fix the problems they're causing down there.

SENATOR KRUEGER: Thank you.

SENATOR STEWART-COUSINS: You had indicated that, initially, none of your neighbors had signed. And then you were saying that there was drilling going on behind.

Did, ultimately, everyone sign?

CRAIG STEVENS: The pipeline is 33 miles long. It has 153 people that signed.

They were originally offering $5 a foot, and a lifetime easement.

And, group got together from Pennsylvania and New York, and you know what they ended up with? $115 a foot, and a 40-year lease, that will end, which means that they can renegotiate.

It's the same as the landman. They come into town, throwing nickels around -- like my dad used to say, "nickels around like manhole covers."

[Laughter.]

CRAIG STEVENS: In other words: They were given -- there are people right here, after my story came out; after that came out, the first call I got was from Lloyd Thompkins near Ithaca.

$3 an acre, Chesapeake has him locked up. It was a ten-year lease that expired in 2009.

They used an option clause, and they're holding thousands of leaseholders in the state of

New York, Senator, at $3 an acre. And they will enforce those $3 contracts until you go broke.

They will spend a million dollars to keep that, because, let me tell you the difference: I have neighbors that have 1,000-acre farms right next to each other.

One signed for $50 an acre, four years ago. That's $50,000 they received. They bought a new tractor and a car.

Their next-door neighbor waited, with an identical 1,000 acres. Get $6,000.

That's $6 million for the next-door neighbor.

You think that the family's staying together, that, the father talked the family into taking 50,000? I don't think so.

You're looking at economic benefit?

What about the people that made a decision?

"Because the State allowed this to happen, we all thought: Hey, if the State's okay with it, I guess we're okay."

And, you make a decision. And, next thing you know, your next-door neighbors are becoming millionaires, and you're considered an idiot.

Now, guess what? When you sign at fifty an acre, you have to have production or you make no

money.

So they are -- these neighbors are saying: Shut up and sit down, Craig, because we want our money.

And, I say: Guess what? When you make the decision to create -- to have generational suicide on your property, and you decide to use a nuclear bomb and take out the entire community, that's not your right to do, even though you're trying to do something on your private property.

I will not allow my neighbors' decisions to affect the future of my family and my children on my own property.

SENATOR BALL: But -- I mean, and that is what's happening.

I mean, in Pennsylvania, I mean, you have individuals who have, their entire lives been destroyed, and the fracking is not even happening on their property.

And I think, in New York State, it's so important that we understand that.

And I see that you have, I'm pretty sure that's a Tea Party Patriot's, uhm --

CRAIG STEVENS: I had to start my own group, called "The Marcellus Patriots For Land Rights."

That flag flies on my front porch. And so does the Alamo flag, that they flew over the Alamo when they were attacked with 5,000 soldiers.

And the reason I put that on is, every driver from Texas and Oklahoma that drives by knows what that flag means.

I'm not going anywhere. I'm staying. I will go right down with the ship. I'm not leaving my ancestral home.

And they know that.

SENATOR BALL: Can we just drill down, and just -- I think it's important to have it on the record, as far as: When you're talking about tying up property for $3 a foot, okay, or $3 an acre --

CRAIG STEVENS: $3 an acre.

SENATOR BALL: -- what people need to understand, is that -- and correct me if I'm wrong -- but, that, once that property is tied up, those families, those farmers, those private property owners, don't see any benefit, until, or if, there is active fracking, there's drilling, and they're making money off of the royalties.

CRAIG STEVENS: Correct.

And, even worst, Chesapeake, in New York State -- I'm talking New York State now -- with

reality, a $3-an-acre lease expires in 2009. They extend it on one word in that five-page contract. It says "Option."

It's an "options" clause; that they can bump it for another ten years for the same money.

They send you a check, you put it in the bank, you're locked in for ten years.

They -- if they put a stake in the ground that says "Chesapeake" on it, they consider that, they're starting production, and they now lock it in. And, there is no money required that locks in the lease.

SENATOR BALL: So, just to make sure it's very specifically laid out: So, once that property is tied up -- and this gets into the details of why -- how we need to protect the private property owners here in New York.

CRAIG STEVENS: Yes.

SENATOR BALL: Once that property is tied up, the company itself can then, basically, renew that grand slam of a deal that they made with your 95-year-old grandmother, simply by putting a stake in the ground?

It may be somewhat of an overstatement.

CRAIG STEVENS: A truck there.

Or, they will drive a John Deere little four-wheeler across your property. They have a GPS on them.

So, they just drive across your property. That's what a guy's job is, is to drive on everybody's property.

And when you say, "You've never been here," they'll give you a stack of GPS sheets that show that they were across your property every day for the last three years.

They didn't do anything. They just drove over, and ran over, your land. But, that's the game.

The game is: Hold on to the lease.

Because, if you think that Chesapeake or Cabot or Exxon can afford to go back, when they paid $3 to tie up property, and pay the current rates, which is six to eight thousand dollars an acre, they can't do it.

Chesapeake is $14 billion in debt, last time I checked. And they have $5 billion in California. And when you try to sue them, you have to sue them in California.

They hide everything. They move it around.

This is the biggest Ponzi scheme that will

ever hit the United States of America, and we're all falling for it.

But, I'm not.

[Applause.]

SENATOR BALL: Okay. Thanks, Craig.

I hope I have the name right: Dr. Dyrszka.

DR. LARYSA DYRSZKA: Honorable Senators, thank you for the opportunity to speak today.

My name is Larysa Dyrszka, and I'm a medical doctor.

New York is at a critical juncture: To address and avert a potential public health crisis. Or, do nothing, and allow the SGEIS process to continuous proposed by the Governor and the DEC, the result of which will be a rapid industrialization of a part of rural New York with tens of thousands of gas wells.

The state is not prepared for this. Our health system is not prepared for this.

And moving forward will cause environmental and public health casualties.

Following are some of the things that we know about health and gas drilling. And, I've included a CD in your packet, that includes -- that all of the documents that I mention are on that CD, to peruse

at your leisure.

The studies on human health impacts related to the extraction and production of natural gas are limited.

And I have provided what we do know on the CD. It includes a few peer-reviewed studies, as well as two health-impact assessments, that I'll get into a little bit later.

And why is there not more peer-reviewed literature on health impacts related to natural-gas exploration and production?

In order to do a scientific study, data is needed. That data is not being generated, nor compiled, nor initiated, nor funded, by the federal government or by the states.

Surveys are not being taken.

Human health complaints are ignored.

Industry continues to parlay the mantra, that: Drilling is safe. That, there's never been a case of contamination from hydrofracking. And, non disclosure agreements are common.

To further complicate matters, in 2005, the federal government granted the oil and gas industry exemptions from key provisions of really excellent environmental and public health laws.

So, the EPA and the federal government public health agencies are not maintaining oversight.

The exemptions include key parts of the Clean Air Act, the Clean Water Act, the Safe Drinking Water Act, Resource Conservation and Recovery Act, Comprehensive Environmental Response Compensation and Liability Act, National Environmental Policy Act, and the Toxic Release Inventory Under Emergency Planning and The Community Right-To-Know Act.

And there are a couple of documents that I've included, that give you the explanations of which provisions, which parts, of those environmental laws are -- there are exemptions to.

Despite the lack of peer-reviewed papers, doctors who have looked at this in any detail have expressed concern. And there are health issues, uhm -- that there are health issues which have not been properly and adequately addressed.

Industry and governmental agencies, both federal and state, deny causality.

Note the eerie similarity to Love Canal, where, at first, industry and government agents denied citizens' claims of illness, and scientific studies didn't conclusively prove at that time that

the chemicals were responsible for the residents' illnesses.

And that caused scientists to be divided on the issue, even though there were known or suspected carcinogens already identified. And, one of those was benzene.

At that point, the precautionary principle was ignored.

So, what have we observed in areas where gas drilling has occurred?

For one, air pollution, causing numerous cases, for example, of odor events associated with respiratory problems, burning eyes and throats, neurological problems, and other issues, in areas where gas drilling is already developed.

Just one example, from the other day: In Texas, people reported odor events from two separate areas. And, they called the Texas Commission on Environmental Quality: "Please come and check this."

It's so haphazard, whether something is going to be checked or not. It just depends on, if somebody takes the complaint with any seriousness.

And, even then, it's not recorded and documented.

So, it's -- there's no consistency.

There are no provisions for this systematic monitoring of air contaminates. And definitely no cumulative projection of air impacts of many wells, processing plants, and compressors.

Another problem that we'll see, for sure, is water contamination.

As the residents who have testified previously have mentioned, there are water buffaloes on many roads. You can see them from the roads of -- in Pennsylvania.

And, the non-disclosure agreements, you will see -- you won't see the documentation because they've signed non disclosure agreements. So, that's another issue that really needs to be addressed by you.

Recently, a document surfaced which showed that, in fact, water contamination that occurred in 1984 was documented by the EPA in 1987. And, just recently was reported by the "New York Times."

So, it has happened.

And, consider the chemicals; the contaminants that are used in the drilling fluids. And, then, also consider what comes up from down below the earth, which, in and of itself, has hazardous

components. And that includes radioactive elements, as well as heavy metals.

And, then, industry repeatedly cites its right not to disclose proprietary chemicals in all of the operations, even if they are toxic.

There's absent, or at best, inconsistent chemical testing for contaminants in property owners' water.

Exposure of workers to chemicals occurs routinely.

You don't see very much of that. But, if you go to the NIOSH site -- "National Institute of Occupational Safety" -- you will find numerous citations from the, uhm -- you'll find fines paid by the -- by gas industry. It's one of the unsafest jobs.

There are accidents. There's health infrastructure.

And, the anticipated profits from gas drilling don't take into account the significant costs of illness, the losses of -- of health losses, and death, associated with this industry.

Most gas-drilling sites are occurring in rural areas with small community hospitals.

And, just recently, there was a testimony

from a nurse, named Stacey Covey (ph.); a nurse, who also was -- is an administrator at a small hospital in Troy, Pennsylvania.

And she recalls, and documents, the inadequacy of her hospital to treat all of the issues that have -- the new issues that have come across the horizon at their hospital. And that the problems include, accidents, you know, that -- severe trauma. That also includes accidental spills, for which they're not qualified to address. And, also, the alcohol- and drug-related issues.

[Off-the-record comment is whispered to the speaker.]

DR. LARYSA DYRSZKA: All right.

There are also psychosocial stressors. Local residents are promised jobs and money. The skilled jobs, they are routinely filled by the trained personnel.

So, there are many issues.

So, in order to address this, a health-impact assessment must be done. We must have a study of the potential health impacts by an independent agency before any further drilling occurs.

And until this is done, and a determination made whether human health should be placed at risk,

there should be no permitting for gas drilling in New York State.

And, if the government decides to proceed with the SGEIS process without a health assessment, then the health and safety of New Yorkers depends on you.

What I would suggest, I would ask you to do, is:

Review the federal laws and the oil and gas exemptions, and reverse them on the state level;

Clarify that towns can prohibit gas-extraction activities, if they want to protect themselves, if the state does not;

Prohibit the use of toxic chemicals;

Prohibit waste disposal from the industry in New York municipal treatment plants or deposition in landfills. We're not prepared to handle those;

And, prohibit high-volume slick-water hydraulic fracturing until such time as appropriate health studies are done, and evaluated, to determine if the risk is worth it.

Let the people decide if they want to take that risk.

And, it must be addressed now.

And, then, the precautionary principle:

Please follow that which -- which states that -- when human health -- "When human activities may lead to unacceptable harm that is scientifically plausible, but uncertain, actions shall be taken to avoid or diminish that harm."

It's -- this principle is the socially and morally responsible choice when there is a risk of harming the public and environment.

Thank you so much.

SENATOR BALL: Thank you, Doctor.

SENATOR STEWART-COUSINS: Thank you.

SENATOR KRUEGER: Just, quick.

Thank you.

Oh, I'm sorry, I do have one question, Doctor.

Just to highlight: So -- you reference non disclosure agreements. And I think they were referenced by some of the other testifiers.

So, if we're all concerned about the public health impacts of fracking, the chemicals that could be being used without disclosure, basic concepts of, what's called, "community right-to-know laws," how does that -- how do we allow non disclosure agreements to take place, when that can, through an individual settlement of one landowner with a

company, translate into a potential public health problem for an entire surrounding county, not being ever able to be learned about?

Don't you see there's a conflict between a non disclosure agreement and public health and safety?

DR. LARYSA DYRSZKA: Yes, I do.

I think one of the problems -- issues here is that health has not been addressed. It's not been part of the scoping.

For example: In New York State, part of the SGEIS scoping, human health was not included as one of the issues.

And that's why it's imperative that we expand that scope to include human health impacts.

So, human health might trigger a different response.

For example: If it's necessary for public health issues, if it's a crisis situation, then I believe that that information can be obtained by doctors, or the public health agency that's charged with the -- gathering that information.

However, because there's been that mantra of, "There is never been a case of water contamination, no health problems," they have been able to get

away -- industry has been able to get away with not addressing human health. And, since there are no problems, then why shouldn't they have non disclosure agreements as part of their contracts -- or, as part of the contract when they provide the water.

SENATOR KRUEGER: Thank you.

SENATOR BALL: Thank you.

Thank you, Doctor.

SENATOR BALL: Okay, Jim Northrup.

JAMES NORTHRUP: Thank you, Senator.

I'm glad to know that you have a flag of -- the Alamo flag flying over your house, because, so do I. My wife and I, Nancy, spend half of our time in Texas at a ranch outside of San Antonio.

SENATOR BALL: Where?

JAMES NORTHRUP: Near Bandera.

SENATOR BALL: Yeah, sure.

JAMES NORTHRUP: Between Boerne and --

SENATOR BALL: Cowboy Country, yeah.

JAMES NORTHRUP: Yeah.

SENATOR BALL: I love Llano County.

JAMES NORTHRUP: It's beautiful.

It is. It hasn't been totally fracked.

And the other part of the time is -- which is

less than six months, I want to assure the Revenue Service, is here in -- up in Cooperstown, up in New York.

So, got that cleared up.

Let me say, too, that I'm grateful, you know, to be here with all of these experts. And I think, maybe, I'm the closest thing you're going to get to an industry expert.

I was in the oil-and-gas investment business for about 30 years. Went to Brown. Went to Wharton School of Finance. And I worked for Atlantic Richfield for a couple of years, as a planning manager.

So, I know a little bit about the business.

We live kind of on the southern edge of the Barnett in Texas. And, we live on the east -- well, almost in the middle of the Marcellus/Utica here.

So, we drive through it in Texas.

A couple of things.

One quick point: Most of the industry experts here locally, are -- they're actually not, in fact, from the industry. What you'll find is, is there is a lot of, sort of, camp-following geologists, and whatnot, from local universities, that really don't have a whole lot of industry

expertise; meaning, people that go around and make presentations, you know, in Upstate.

To get somebody from the industry to actually come to one of these hearings and, more or less, halfway tell the truth, you're going to have to subpoena them. You're going to have to put them under oath or they will not tell you the truth.

And, they know a lot more about this, frankly. Certainly, horizontal hydrofracking.

I never horizontally hydrofracked a well. But, they know more a lot more than I do, but they will not tell you. And they won't -- certainly, they won't tell you unless they've been put under oath.

So, I would -- you know, next time you want to talk to one, you're going to have to subpoena them.

The -- I'm going to diverge from some of my remarks a little bit to address some of the things that have come up.

You know, this shale gas; or, actually, horizontal hydrofracking, is been likened to a bit of a Ponzi scheme. And that's probably a misnomer. Certainly, a discredit to dear Mr. Ponzi.

But, it is -- it has been --

[Laughter.]

JAMES NORTHRUP: It has been -- it has been, routinely, since it was discovered, developed really, commercialized, in the Austin Chalk about 30 years ago, it is very easy to overstate the wealth of these wells.

It's also very easy to overstate, both, temporally, in terms of how long they last; I mean, overstate to the SEC, to shareholders, to the press, to the politicians, to whatnot, and, also, to -- and also to the extent of which they would be productive.

Most of the testimony you have from -- you know, from Pennsylvania comes from just a few counties, whereas the Marcellus is pretty much under most of the state of Pennsylvania.

That's kind of something to keep in mind.

The other thing is, is that you have heard a lot of testimony about water.

Well, the problem in Upstate New York and in Pennsylvania, is that the groundwater wells are so shallow, as opposed to the water wells out west, in Wyoming and Texas, Colorado, New Mexico. And that presents particular problems to those people's water; meaning, their -- because their water source

is something very close to the ground, they're basically drinking rain water. And, so, it's particularly prone to pollution, both, from the surface, and it's also prone to being gassed, as they point out.

And this is something that industry kind of downplays, but they've known about for years; and that is, is when you spud one of these wells, it is going to -- it is very likely going to introduce the drilling mud into the groundwater. And it's also going to introduce methane into the groundwater.

The reason why that's not a problem out in San Angelo is because people aren't drinking groundwater. There is no groundwater.

They're not -- in other words, the wells out there are not tapping water that's being polluted.

So, the fact that you haven't seen a problem with that in Texas or Colorado or New Mexico, doesn't mean that it's not a problem here.

SENATOR BALL: Jim, do you know the depth 'neath in the -- in the central of the Edwards Aquifer?

JAMES NORTHRUP: Yeah, we'll, for instance, on our end, Bandara County, our well is about -- we'd be lucky if we got 20 GPM, you know, at

1,000 feet.

So, in other words: Literally, the, quote, water table -- and that's a misnomer -- for those water wells is 1,000 feet down. It's not surface water. In fact, it's not even communicating with surface water. It's not being recharged on a daily basis by groundwater.

So, if there's a spill in central Texas, it's going to -- I mean, literally, it would take thousands of years for it to get down there if the well was properly sealed.

So, that's -- that is a problem inherent with the topography, the hydrology, of this area. And, frankly, there is no easy solution, because everybody that knows this industry, anybody that will talk about it, they know that, like, for instance, Schlumberger did a study in 2005, that, of the wells that they study, and they were all shore wells, by the fifth year, 25 percent of them were leaking gas. I mean, that's just the -- that's the nature. It's not a matter of whether they leak, it's a matter of how much they leak.

So they know that, you know.

So, as again, you're -- but nobody is going to tell you that, except me or Lou Allstadt or

Tony Ingraffia, unless you put them under oath.

Now, the other company -- just, I want to race through a bunch of stuff --

Quit flashing that thing at me.

[Laughter.]

JAMES NORTHRUP: -- is that -- is there's a couple of things -- you know, people talk about how, you know, everything is wrong -- everything's been done wrong in Texas, and whatnot. Well, I'm not going to argue with that. But, there are a few -- there are sort of some minimal things that are common out west that are not -- that are not established law here.

And it's been mentioned earlier, but, there is, in fact, no production tax on gas in this state. You know, this state and Pennsylvania are two of the only states, are the only two places on the planet that don't tax gas at the wellhead; meaning, the state doesn't.

That's something -- you know, that's something that needs to be corrected. That's something that you -- that the legislature could correct.

It's not -- it's not something that the industry really would balk at because they pay that

tax everywhere else they are. Everywhere else on the planet, they pay a tax on the gas at the wellhead. No big deal. It's just a matter of what the number is. The number should be something north of zero.

The other thing is, is that it's very common out west, in Texas, for -- in fact, it is the norm, for local land-use laws to control well permitting.

In fact, you know, we mentioned some of these companies, like Cabot -- I heard Cabot; Chesapeake, I heard that one; Range Resources, XTO; all of those companies are in states where local land-use controls, whether a well can be permitted.

So, in other words: If XTO or Range had to go get a well permit in their hometown in their home state, they would have to go to the city of Fort Worth to get it.

Now, that means there's sort of dual control; in other words, there's a state agency, like the DEC, that would permit the well, but it's also subject to local control.

You know, they call it, a sort of catch phrase here, "home rule."

Senator Seward, my senator, even though I don't pay taxes in this state, is -- he's introduced

a bill, a home rule -- a, quote, home-rule bill, to clarify-up the wording. It would be of -- it's, as a minimum -- these are minimum things, the severance tax home-rule bill. There's a minimum.

Those are the kinds of things this state needs to have, because, you know, to put this -- so you would -- so you at least come up through the low standard of New Mexico, and Texas, in that regard.

So, I would urge you, those two things, to put on your shopping list, and to help Senator Seward out with that Bill.

If you have any questions, I would be happy to answer them.

SENATOR KRUEGER: Thank you very much.

And I appreciate, in your testimony, your highlighting that.

You know, we're new to this drilling stuff here in New York, so we're learning the bad lessons from Pennsylvania. And, hopefully, we can also learn good lessons from states who have thought it through.

Specifically around this issue, the last point you made, so, how does this home-rule concept work?

Because, I know that there are towns

throughout the state who are already saying we're passing no drilling laws at the local level.

Is it your understanding we would need state law to ensure localites can do this?

JAMES NORTHRUP: Well, no. Actually, what you need -- you'd need -- I would refer you to Seward's home-rule.

In fact, I just gave Jay a copy of it -- or, sent him a copy of it, Jay Coleman.

Is that, what it does, is it clarifies the state, the DEC, regulations relating to a locality's powers to zone vis-a-vis well locations.

And, that -- what I'm saying is, is it -- if, that, when that clarification is made by the Seward bill, then the State of New York would be clear on that, the enabling legislation.

And what that, in fact, would do is, is that, if you wanted to go drill a well in, you know, Binghamton, or whatnot, that you would have to go to the city zoning to get that.

The way it reads now is a little fog -- it's a little unclear. It needs to be clarified; meaning, it's, in theory, the DEC could issue a well permit in Buffalo, or in Binghamton, and that that well-permit site would not be subject to local

zoning.

That would -- I can guarantee you, that would be a real mess, to -- you know, to -- to not be able to have local zoning control; that sort of thing.

SENATOR KRUEGER: Another follow-up question, because you know drilling, and I don't.

So, in the State-proposed model, they're not allowing drilling in the New York City watershed, because New York City, where I represent, is 8.5 million people dependent on clean water from two reservoir systems.

But, somebody gave me a warning, that, even the way we've written it in our draft, environmental impact statement, that, because drilling can go, sideways, underground for miles and miles, that, actually, we probably haven't written that in a way that actually prevents drillers from going down awfully close to our aquifer and into our reservoir watershed system.

JAMES NORTHRUP: Right. Well, first of all, I think all New Yorkers deserve the same level of protection as people from New York City.

SENATOR KRUEGER: Yes.

JAMES NORTHRUP: I mean, as -- not as an official resident of the state, but -- you know.

So -- but, to answer your question: You can run a lateral -- one of these horizontal wells -- a lateral, I mean, easily up to a mile.

So, in theory, what the DEC has proposed is a setback beyond the New York City watershed of 4,000 feet, to sort of anticipate the fact that you couldn't -- you couldn't be beyond the boundaries of the watershed, and still, quote, drill into the watershed by running a lateral into it.

Now -- but, I think the problem -- what you addressed, though, is it's -- that's a ministerial act of the DEC. And, I mean, to -- to -- which they could change; in other words, the different -- they could come along and have...

So, it all -- to really clarify that, you'd almost have to get an act -- the legislature would have to act on that, to make it law that they couldn't, if, in fact, that was, you know, what you wanted to do.

SENATOR KRUEGER: Thank you.

JAMES NORTHRUP: Yes.

Yes, ma'am.

SENATOR KRUEGER: Thank you.

SENATOR BALL: Okay, I want to come to Texas in December. We'll go to the Lowake Steak House,

okay, outside of San Angelo.

JAMES NORTHRUP: Okay.

SENATOR BALL: I'll take you.

Okay, thank you for being here today.

JAMES NORTHRUP: Thank you.

SENATOR BALL: A pleasure.

[Applause.]

SENATOR BALL: Okay, next up: Josh Fox.

JOSH FOX: Hi. How are you?

SENATOR BALL: Good. How are you?

JOSH FOX: Nice to see you again.

First of all, I wanted to say, thank you very much, to Senator Ball, and to the New York State Senate for this opportunity.

I'm honored, and grateful, to be able to appear here today to testify.

I also very much appreciate the fact that you went on a tour of Pennsylvania. I think it was a very brave act, I think a very important act, for a person that comes from your party.

And I think that you've seen here today the power and the importance of citizen testimony.

I have been asking congressmen and senators in Washington, D.C. to please hold citizens hearing.

And I don't think any of us can speak as loud

as the experience of Victoria Switzer, or Craig and Julie Saunter. Or -- and I want to put that in context.

For the last 3 1/2 years, I have gone all across the United States, to Europe, to Africa, and to Australia, and I have investigated this form of drilling.

As a result of, many people know the story of being offered a gas lease on my family's property in the Upper Delaware River Basin in Pennsylvania, just across from the New York border.

And, that has taken me all across the world. And I have heard hundreds of those stories, if not thousands.

And, I would encourage you to continue the process of citizen hearings as you go through this continued inquiry. And, to get people from Wyoming, to get people from Colorado, and to get people from far-flung places, because I think what that does, is it points to the inherent contamination of this process, and how it's failing everywhere it goes.

So, my testimony is in fierce and passionate opposition to permitting large-scale industrial gas drilling by means of hydraulic fracturing anywhere in New York State.

The health and character of New York State will be significantly and forever compromised by this inherently unsafe and untested process.

The process will destroy property value, as you heard; fragment and fracture the land, contaminate water resources, pollute air quality, create a public health crisis. It will significantly harm the tourism and agriculture industries in the state and the region, and make areas that are heavily developed unfit to live in for generations to come.

I will state at the outset, that to truly relate my experience in testimony would take several hours, if not several days, and I may not get through all of this, but I would appeal to the Senator, and other senators' staffs, to please use me as a resource on any questions you have, going forward.

I'm at your disposal.

So, I'm the filmmaker of the Academy Award-nominated documentary "Gasland."

I'm a resident of the Delaware River Basin in Montville, less than five miles from the New York border. And I'm also a resident of Brooklyn, New York, and I drink my tap water.

I've been living with the stress, that the stream and the woods just across from my property in Pennsylvania will be turned into an industrial drilling zone, and that my New York tap water will become unreliable, for 3 1/2 years now.

I've investigated fracking, traveling to 34 states in the U.S.; Europe, Africa, Asia and, Australia. And I have yet to see this industry do anything but harm to the areas it occupies.

I have toured Texas, Pennsylvania, Colorado, Wyoming, New Mexico, Arkansas, and far away Australia, extensively; all places which claim to have tough regulations on natural-gas drilling. All places that have been dealing with drilling for many years, and which I've had the chance to improve upon their regulatory framework while drilling is occurring.

And I must report, that even though these places boast tough regulations, I have yet to visit any place on earth where a regulatory approach to drilling made the activity safe to live near.

I, therefore, must conclude that the argument that tough regulation of natural-gas drilling will make fracking safe to live near is unfounded and unsupported by any legitimate study of the practice

as it is happening in the world-at-large.

And that's the bulk of what I'm saying here: A regulatory approach does not work.

And I must caution the lawmakers of New York State, present company excepted, many of whom continue to insist that, quote, New York can get it right, by imposing a tough regulatory framework of the pitfalls of political hubris and braggadocio.

Such statements are wishful thinking at best, and at worst, criminally negligent, in the face of the disastrous track record in other states.

Texas and Pennsylvania also claimed, that all they needed to do was adopt a tough regulatory stance and drilling could be done right.

But, the record shows hundreds of contamination cases, as documented in my film, and documented in the "New York Times," and in the Pulitzer prize-winning stories found on the ProPublica website, and hundreds of citizens.

What follows is, widespread suffering, degradation, and general disillusionment with the political process in the drilling areas in those states.

In case after case, the gas industry, once it

has established itself, proves to be more powerful than the state that seeks to regulate it.

And this is exactly what you heard from the -- Cabot contesting the DEP's determination that they had, in fact, polluted the groundwater of Dimock.

They said: We don't believe you. Take a hike. We're more powerful than you.

And there are many ways in which that happens, and I can elaborate.

So, when someone says to me, "I believe that we can drill safely," I always ask the same question: On what grounds do you believe that?

Based on what scientific-proven study?

Which one of the methods do you believe can be done safely, that have never been tested by a rigorous independent peer-reviewed testing process for safety in the long or the short term?

I could as easily substitute the sentence, "I believe I can go over Niagara Falls in a barrel and survive."

So, simply put: I have no confidence whatsoever in the gas industry's ability to drill for gas while maintaining the quality of life.

I want to go through a few of the things that

I have observed. I made a list off the top of my head.

It's about 66 things that haven't been tested; that, if you were to say, "Well, we believe this could be done safely, by creating a regulatory framework," you would have to, I guess, begin a rigorous scientific study of each of these areas over a period of years, to make sure that those regulations actually were based in scientific fact and trial-and-error.

One: No regulation should be approved without a proper cumulative impact study of the effect of 100,000 gas wells, and the corresponding pipelines, compressor stations, refineries, truck trips, injection wells, waste impoundments, and access roads will have on New York State, because the projection is around 100,000 gas wells.

There is no conceivable way --

SENATOR BALL: Josh --

JOSH FOX: Yeah?

SENATOR BALL: -- so, the projection is, 100,000 gas wells in New York?

JOSH FOX: Well, based on spacing bills, and based on the gleeful projections of the DCNR in Pennsylvania, of 180,000 gas wells in Pennsylvania,

I would estimate, yes.

That, no one knows, for sure, how many gas wells the industry is projecting. It's certainly to inflate these projection. It advances their credit line.

A lot of this has to do with valuing their company based on reserves, rather than on actual amounts of gas, that we don't know. But, the figures are very, very high.

100,000 gas wells in New York State, compared to, what you would say, 180,000 Pennsylvania, I think, is --

SENATOR BALL: And out of 180,000 in Pennsylvania, how many active wells are there right now in Pennsylvania?

JOSH FOX: It's about 3,000.

SENATOR BALL: Right.

JOSH FOX: Marcellus wells.

So, only 3,000 wells out of a projected 180,000 have caused the amount of problems that you're seeing in every single county where drilling is happening.

There are -- Dimock is not an exception. Dimock is the rule.

Dimock is happening in Susquehanna County.

Dimock is happening in Bradford County. Dimock is happening in Fayette County, in Green County, in Washington County, in Potter County -- in every county they're drilling in Pennsylvania.

The drilling is also -- the same scenario is also being played out in Colorado, Wyoming, Texas, Australia -- across the board.

And I want to submit here, my film "Gasland," which tells a lot of these stories on behalf of the citizens, it's honest reporting, it's been vetted by the science.

And I also wanted to submit this flash drive -- which is in the shape of Texas, as a reminder of, perhaps, where not to go with this -- which includes a number of different studies; and, also, our rebuttal to the fierce industry smear campaign against the film, which is facetious and untrue.

And there is a 39-page PDF in there, with 100 different references, that combats the industry's PR campaign against the film, and against people like Craig and Victoria.

So, just going through these, there is no long-term study of human health risk. There is no enforcement capability within the New York DEC,

local law enforcement, or citizen or federal groups adequate of handling the amount of oversight needed for that many wells.

There is no adequate inspection capability for gas wells in the long term or the short term by the State.

There can be no adequate standards for well-casing depth because there's been never -- never been a scientific study taking a look at this particular geology. And, natural fractures vary in depth and length and -- in these different geologies.

There is no tested and no proven solution to the industry-wide problem of casing failure.

By the industry's own admission, 1 out of every 20 casings will experience an immediate failure upon drilling. Not upon fracking, "an immediate."

So that means, you're going to have a problem 5 percent of the time.

If you take a look at Dimock -- and I'm skipping around here, just for time -- 1 out of 32 wells, according to the DEP, caused a 9-square-mile contamination area in Dimock.

If you take that figure, and multiply it by

100,000 wells at that contamination rate, 1 out of 32 -- which is generous, it's probably more -- you've contaminated every square inch of the Marcellus Shale covering New York.

And you have to go by the statistics. This is the way these things play out.

There is one in a thousand chance of a blowout in Pennsylvania. We've had two blowouts.

All right.

So, there are no proven standards for well-casing cement that have been scientifically tested.

There are no proven standards for well-casing pressure tests.

There are no proven standards or limitations on frack pressures, or pressure-testing the materials involving, including casing or pipes.

The reason that I'm going through this laundry list, is because, the truth is, that no one, except perhaps the industry, actually knows what is going on, and why this is all failing so much. Why we're having so many cases of water contamination.

It could be service contamination. It could be casing failures. It could be the fracks.

Are the fractures going all the way up to the

surface? -- as I've heard from industry people, who said, "Come here, I got to tell you something."

And I said, "Will you testify in Congress?"

And they said "No."

You know, it could be the fact that you have natural fractures, that the frack fluids migrate up.

It could be the fact that you have an old orphaned gas well or coal mine or oil well somewhere in that geology that isn't accounted for, that you hit when you frack.

It could be that you frack the next well, when you have "this" well being fracked.

See what I'm saying?

So, there's many, many possibilities, and this would take a study.

I've asked Weston Wilson of EPA to take a look, and say: Well, what would this be? How would you actually take a look at this?

And he said: Well, it would be about a $30 million study just to do one geology. So, you'd have to do five or six different wells, frack them all, figure out where all of those fluids were going. And take a look at that in many, many different instances.

You'd, essentially, have to replicate the

scale, the drilling, to find out what is going on, with any reliable scientific credibility.

Does it make sense?

So, therefore, any regulatory framework is speculative.

I can keep going. I'm on Number 12.

But, you know what I'm saying?

SENATOR STEWART-COUSINS: Uh-huh.

JOSH FOX: Companies that have -- I can go on here.

Companies have not been, and are not required, to report drilling logs, drilling-mud records, frack-chemical records, depths, frack pressures, directional drilling locations, to the public, so there are no records of significant parts of this technology open for public review.

There are no proven studies of how drill-cutting disposal or storage affects water quality.

There are no studies of the effects of the disposal of drill-pit lining.

There is no history of the proven safety of synthetic drilling muds which are injected before wells are cased. -- which Mr. Northup pointed out, drilling muds are injected before the wells are

cased. Those are going directly into the aquifers. They're turning up at people's water wells.

Drilling muds are often synthetic and are petroleum -- and/or are petroleum products which are drilled directly into aquifers before the casing process.

This can go on and on.

SENATOR BALL: Josh, you can submit the testimony. But, if you think --

JOSH FOX: I think I will.

SENATOR BALL: -- I think that, you know, in the Air Force, you use so many acronyms, that, you know, we get into a meeting, and it's as if, when somebody new comes in, they should be handed a sheet with all the acronyms.

I think, during this hearing, if you don't mind, just speaking a little bit about: The process of fracking; what you have seen firsthand, and when you talk about the residents who came here today, and the devastation that they a saw in their wells. And, then, the industry itself, and the shell game that they play, where they're actually providing the water, but they've not taken responsibility.

JOSH FOX: Sure.

SENATOR BALL: They do a test, but they're

not testing for what's in the fracking fluid.

If you can just kind of put it in a nutshell, and explain the process --

JOSH FOX: The fact is, this process is so technically complicated, it works in the industry's favor, because they can do a lot of smoke-and-mirrors games.

But, basically, what happens is: This is a lie, from the very beginning, to the very end of the process.

When they come to you, to lease your land, the first thing that they will tell you is, "This is perfectly safe, and you're going to make lots of money"; both of which cannot be true.

So, they're coming in, as you heard Craig's testimony, and basically selling you a bill of goods. It says: This is what you're going to get out of the process.

And if you sign that lease, you're -- you're -- and they show you a picture of a Christmas tree-like. A little thing in -- it looks like a fire hydrant in the middle of the field.

And when you -- when this process goes on, your land is rapidly industrialized.

You have pipelines, you've got compressor

stations, you've got well pads themselves.

There are, inevitably, problems with some of the people's water, that start to become reported, or they're not reported.

If you go ahead and complain, the company you lease from will say: Well, that was the contractor's fault. That wasn't our fault. So, you have to call the contractor.

And, you know, so you end up going through a series of hoops.

And if you go and, perhaps, complain to Pennsylvania DEP, they'll take a long time to come out, depending on what the Governor -- if it's Rendell or if it's Corbett -- has decided. Your tests will either be processed there, by the people you're working with; or they'll end up in Harrisburg for six months, for some reason, and you won't get those water tests back.

And a lot of people are complaining about that kind of thing.

Then, you're basically faced with a situation, where you are forced to prove what happened 8,000 feet under the ground, as a landowner, on your own, with limited ability to pay for water testing.

I mean, you have the possibility of 600 different possible fracking chemicals that could be used. And with no reporting requirements, you have to invent -- well, the EPA and Region 8 -- Pavillion, Wyoming, which is featured in the film -- when they went in and -- to try to find out what these -- what had gone wrong with these people's water, they, literally, had to invent the tests, to figure out what chemicals were there, because the drilling companies weren't going to tell them what they were using.

And these -- and tests did not exist for some of these chemicals, so they were really doing a serious detective mission.

This has been going on for three years. Every year, their findings are worse and worse.

Every year, they're telling those people in Pavillion: Don't bathe in your water. Don't drink in your water -- uhm, don't drink your water. Don't use it.

And those people have no arrangements with the companies to deliver water. They're buying water at Wal-Mart.

So, this is going on and on all across the nation.

And, time and again, the industry is --.

SENATOR BALL: Josh, just so people understand --

JOSH FOX: Yeah.

SENATOR BALL: -- sorry for -- when we're talking about supplying water to a household, can we talk a little bit about monthly costs.

JOSH FOX: Sure.

SENATOR BALL: Because, it's not just picking up two jugs and, you know --

JOSH FOX: Well, it varies from place to place. It depends on how much water you're going to get.

John Fenton, out in Pavilion, Wyoming, who's featured in the film, was driving 60 miles to get his water from, a friend, or a relative, that he knew their water was okay.

Crystal Stroud, who you visited -- you and I visited with on this tour, had contaminated water. She had radioactive water. She had barium in her water.

And, she ended up with barium in her blood, and in her four-year-old son's blood, without knowing that she was drinking this contaminant, until her hair started falling out in the shower.

Her water supply, I believe she said, it was $2,500 for two months.

SENATOR BALL: Right.

JOSH FOX: And a friend was paying it, as a favor, because, uhm, felt sympathy for her, and she wouldn't have been able to do that.

That's what it costs to, bathe in, and drink, water.

A lot of people will still be bathing in their water, or bathing in water from a water buffalo, which you wouldn't normally think of as potable. And then be drinking bottled water.

So, the expense is huge.

And, you know, I've heard many tales of gas companies entering into agreements with people, in Western Pennsylvania especially, that were non-disclosure agreements, in exchange for delivering water.

So, people were exchanging their First Amendment Rights for the ability to have water delivered that was substandard. But, that that was the position that they were in.

I can speak very, very clearly, also, to something that I'm seeing as a trend, and something that I fear greatly myself, if this process were to

come to the Delaware River Basin; which is, that people in these areas are forced to move. They must leave.

Before you had arrived on the tour, we visited Crystal Stroud's house.

When I visited her just three months ago, it was a vibrant home. Her son was playing on the porch. Her husband was there. Beautiful furniture. Something that they had really cared for.

When we walked in two weeks ago, or a week ago, it was empty. She had been forced to move.

Calvin Tillman, the mayor of Dish, the mayor of the town; who has two young sons, he knows exactly what the air pollution is that's coming into his windows because he has the air monitors. He is the mayor.

He had to move out of his own town, for fear of his son's health.

Stephanie Hallowich, out in Western Pennsylvania, another person who I've interviewed, who's been very outspoken, had acrylonitrile in her water well and benzene in her air, had to move out of her house.

And when I called her up a few weeks ago, and said, "Steph, how's it going?" she said, "I'm sorry,

I can't talk to you anymore."

She had signed a non-disclosure agreement.

This was one of the most -- she had to. She was cornered.

Same thing happened with Amee Ellsworth, the person in my film who could light her water on fire.

I called her up one day, and said, "Amee, how's it going?"

She said, "Sorry, I can't talk you to about gas anymore. We can talk about Facebook, we can talk about video games, but we can't talk about gas drilling."

Because, when you're in that position, and your home is valueless, your water is flammable or your water is poisoned, every ounce of value in your home has disappeared. And, you are there, forced, as a landowner, with, you know, two options.

You might be able to go the media, if you feel like that kind of person. And not everybody is.

Right?

Or, you can go ahead and try to sue that company. And, you know, the odds are stacked against you.

So, most likely, you're going to settling out

of court, with a non-disclosure agreement, and your case history will disappear from the record unless, perhaps, I have a copy of it.

And I do have Amee Ellsworth's water tests on this flash drive, for you. But, if I didn't have them, those records would be sealed, unless there was a Congressional subpoena.

So, this is the kind of replicating over and over again.

SENATOR KRUEGER: Josh, is there any state that's done non-disclosure prevention laws?

JOSH FOX: I -- you know, I have been -- I'm trying to find out the answers to, what exactly the legality of a "non-disclosure agreement" is.

I think that -- my belief is that they're unconstitutional. You should not be able to sign away your First Amendment Rights because you're being cornered by a huge corporation for everything that you have.

I mean, I find them un-American.

And they're certainly the mortal enemy of the documentary filmmaker, right, or any scientist, because you're trying to find out this evidence. You're on this trail.

SENATOR KRUEGER: Right.

JOSH FOX: You're -- and, all of a sudden, you run into roadblock after roadblock.

And I could point to something very significant with regards to this.

John Fenton, whose wife, Kathy, has lost her sense of smell, who is suffering health effects, and so is his mother-in-law that lives right near him, and himself. They're all experiencing health problems.

Five years ago, his neighbor's water was contaminated with an odorless and colorless contaminant. He didn't know about it, because his neighbor had settled with the gas company, and signed a non-disclosure agreement, and moved away.

If he had known five years previously, if that had been part of the public record, he might have -- he and his wife and his mother-in-law might have not become ill.

And, so, you have a situation, where these companies are cornering residents who have been contaminated, making the records disappear from the public so that, you can't access them, I can't access them. And so that you can continue to say this mantra of, "There's never been a proven case of water contaminated by hydraulic fracturing," because

those are -- literally, disappeared.

And the point of all of this, this long list of things here, is that, there has never been a proven instance where hydraulic fracturing is safe.

It has never been proven. It has never been subjected to any scientific rigor. So when you're talking about a regulatory framework, you're doing guesswork.

And, basically, that's more motivated by politics than it is by -- or greed, than it is for the actual concern of the citizens of the state.

You wouldn't be issuing drugs with these many chemicals in them to the general public, and go: Oh, well, we think they're safe. I believe it's safe.

SENATOR KRUEGER: Right.

JOSH FOX: Your first impulse would be: Well, did the FDA -- does the FDA also believe it's safe?

You wouldn't get on an airplane, where the pilot would say: Well, I think it's safe.

You know?

"I'm pretty sure it's safe" -- would you?

[Laughter.]

JOSH FOX: "I'm pretty sure it's safe. Step

on Bob's Airline."

You know?

And the FAA operates to a 99.69 record of safety. That, is safe.

Not 95 percent, not 5 percent, of well casings are going to fail.

And that's just one of the possible many hundreds of problems that can go wrong that can contaminate water, and can make your situation unlivable in those areas.

So, you know, for a long time, New York was the centerpiece of sanity on this issue, until we opened this back up again.

I was just in South Africa, and I heard the same line from the people who would like to drill: "I believe it can be done safely."

And I said, "On what grounds?"

Well, luckily, the South African government renewed their that six-month moratorium. They didn't buy it.

We did not have that happen in this state.

And, in fact, I believe, that, based on all these citizen testimony, we have enough information, now, to say: No, we're not going to do this. We're not going subject our citizens to this kind of

terror.

Because, oftentimes, that is the word that people use when they discover their water is -- (unintelligible) -- I was terrified. I couldn't sleep."

Amee Ellsworth, who was silenced, remind you, was showering in the dark, because she was afraid that her light bulb would spark, and it would blow up her shower while she was in it.

You know?

This is -- these are the conditions that people were living in: to not understand if the ground underneath you, and the water that's coming through your house, is safe.

And this is a very legitimate concern.

If your water is flammable, you have coming through your pipes unfiltered natural gas, which includes all of the things that you might refine out of it: benzene, toluene, xylene.

So, you're being exposed, through your water pipes, to gas that would be considered illegal to use in the home in any other context.

So, when you're dealing with this proposal, the gas industry would like you to believe that you're in some kind of a life raft, you know. That,

here we are in the middle of the ocean, you know, and we're going to drown and die unless we start eating each other.

You know?

But we're not in a life raft.

There are so many other ways that New York can develop energy resources that are clean, that are renewable, that are proven, that are tested that work, that are twenty-first century, not eighteenth century, technologies.

And, New York State has always been a very, very bold leader in moving in that direction.

So, when you consider this proposal, you can't just consider it a proposal of: We have to do this drilling thing or die. Or, we have to do this drilling thing or we'll have economic ruin.

We're talking about -- because the industry will use those arguments to hold them over your head.

What we're talking about here, is choices about where the twenty-first century is going to go in terms of energy.

And, this is one that makes the least sense to do.

It makes the most sense for antiquated

fossil-fuel industries, who are dying, to make money, but the least sense for the health and the welfare of the state, and for the progress of the human race.

So, there are many other things in this testimony. I will submit it, formally, on this Texas-sized flash drive, and in the film.

And I will also remind the panel that I am in the process of making "Gasland II."

You may turn up in it --

[Laughter.]

JOSH FOX: -- because the camera is right over there [indicating.]

And, that, that's just a reminder that this is happening on the world stage.

That, this debate, which I think is extremely important, and I really commend you for holding it, will determine policy, not only for New York, but around the country, and around the world.

And that has been my experience talking to people from Colorado, saying: Go find out what can happen in New York. Maybe we can get some help.

Same thing in Australia. Same thing in France, and Quebec, South Africa.

All eyes are here, and you guys are in the

lead.

And I really appreciate that.

SENATOR BALL: Thanks, Josh.

[Applause.]

SENATOR KRUEGER: Thank you, Josh.

Josh -- I'll just say, Josh, as you're leaving, that an industry spokesman, when I mentioned your movie, told me -- an industry lobbiest told me: Well, methane gas comes out of people's taps all the time. I don't know what the issue is.

JOSH FOX: You know --

SENATOR KRUEGER: It lights on fire, actually.

JOSH FOX: -- I'm sorry, I know I'm over time.

But, this "naturally occurring methane" argument is a little bit --

SENATOR KRUEGER: Yes.

JOSH FOX: -- I just want to put one thing in your mind.

SENATOR KRUEGER: Yes.

JOSH FOX: The tobacco industry said that lung cancer was naturally occurring. It did that for decades. They hired a firm called

"Hill & Nolton," a PR agency, to promote that idea.

The gas industry hired Hill & Nolton to attack my film.

Same agency, same argument: You can light the water on fire naturally.

SENATOR BALL: Josh, it's not just methane.

Methane, in many instances --

JOSH FOX: Oh, right.

SENATOR BALL: -- is the least of these family's problems. And that that "naturally recurring" argument is something that we absolutely have to deal with.

JOSH FOX: Thank you.

SENATOR BALL: Natalie Brant.

SENATOR STEWART-COUSINS: And children.

SENATOR BALL: Okay, Natalie, you can begin.

NATALIE BRANT: Hello. My name is Natalie Brant. I live about 30 minutes south of Buffalo in Springville, New York, with my husband and eight children.

My story begins in 2008, when my landlord leased the land I live on to a gas company: U.S. Energy.

I didn't -- I didn't really know the details of drilling. I thought that it was going to be a

great thing and the gas would be cheaper for me.

I remember that they had an open frack waste pit, but they never explained that it was just dangerous. I thought it was normal -- uhm, I thought it was normal in how they processed work, and it was just muddy water.

I didn't think that it was anything unsafe, because I didn't think that they were allowed to do anything that was unsafe or risky.

They ended up just bull dosing over the pit.

Soon after drilling began, we started getting really sick, and we didn't know what was going on for 2 1/2 years.

Then, in July 2010, my husband watched "Gasland," and realized that everything that was happening in the film was going on in our life too.

So, my husband wanted to see if our water actually started on fire. And it did.

He woke me up, and I had thought he was goofing around, uhm, to -- I just couldn't believe that he was lighting the water on fire.

I thought to myself, that's not normal. And I was scared, shocked, and very disturbed.

We called the DEC to ask for their help.

They said they would call us back; but,

instead, U.S. Energy, the drilling company, called us back.

Later, the DEC came to our house, but did nothing but videotape our water starting on fire out of the faucet. They never even took a water sample.

The gas company then came to our home. They decided to put my neighbor's and I and my children in a hotel for a night. They gave us six rooms there, and threw several hundred dollars at us for food.

The next morning, I talked to a Mr. Chad Leonard from U.S. Energy, and he said it would be safe to come home, and that they had put a separation tank in, to separate the gas from the water.

But, he said we shouldn't drink the water. He called it "technical water." And that we could clean the house with it only.

They also put us on a six-month water supply with Culligan water.

We ended up getting about three deliveries from Culligan, and that was it, because they had found out I had hired an attorney.

At that point, U.S. Energy did nothing else for us.

U.S. Energy officials started to say that the gas in our water is coming from a nearby septic system. They said it's sewer gas.

We know now that that -- that, after a water, that it isn't true.

The DEC has done nothing for us.

When the DEC came to our home, they just told us to make sure that, when we took showers, we kept a window open, keep the bathroom door open, and put a regular fan in the bathroom.

They said not to use the exhaust fan in the bathroom because the levels of methane gathering in that area had potential to blow up. That our house could actually blow up also.

The DEC were the first ones to tell us that. Then, later on, others stated that as well.

We shut off the water for the house because we were frightened of a spark sending off methane.

I don't use the water at all.

I leave the windows open, even during the winter, for fresh air.

The DEC put out a final report after claiming they investigated.

In the report, they took the word of the gas company, who claimed that a neighbor said he had

been lighting his water on fire for the last 15 years, and that they'd been doing it as a joke to entertain people.

The neighbor said that he never said that.

That neighbor came over, and signed paperwork saying that that was a lie, and that the gas company had -- what the gas company had said wasn't true.

I have an affidavit from that neighbor. And, I have an affidavit from the gas company, claiming that the neighbor said it. And the neighbor is saying something totally different.

SENATOR BALL: Jimmy, you can grab that testimony, okay?

[Documents provided to Senator Ball.]

NATALIE BRANT: And another neighbor too.

I'll put that there.

Okay, so, the neighbor came over, and he signed the affidavit, saying it was a lie, and that the gas company had -- what was said wasn't true.

Another neighbor also said the same thing.

And, I have two notarized affidavits, which I just gave you, stating this.

The DEC based the results and findings on the word of the gas company, which, they were all lies.

The DEC has been, in my eyes, a disgrace.

What are they good for? What did they do for me? "Nothing."

They drove an hour and a half to my home to videotape my water setting on fire?

After all -- after that, all they did was release a report, saying that they had investigated; which they didn't. The DEC never tested the water, but created a report somehow.

To this day, they have never taken a water sample.

I also called Erie County's Health Department.

First, they sent a technician over, just to test for bacteria, which, at that point, before the separator was installed, there was none.

The Department of Health told us, we were only to take one-minute showers.

I contacted the Attorney General's Office here in Albany.

Then, an engineer from the Health Department -- from Erie County Health Department came to look at the water, inspect the water well, and separating system set up by U.S. Energy.

At the time, he ruled out septic

contamination.

The Health Department also said that we needed to disconnect the separation tank, because the bacteria levels were getting outrageous, and the separator wasn't working on the methane. My water was still setting on -- starting on fire.

If anything, the installation of the separator made the water worse.

The chief engineer for Erie County could not even describe the odor of the water, which was murky and filthy.

That's what's coming out of our faucets.

He did not take a water sample because the County Health Department does not have the required resources or expertise.

The Health Department told me that private drinking wells are not regulated in New York State. Also -- so he couldn't -- so, he couldn't do anything about that.

We'd been drinking the water for almost 2 1/2 years before we knew that there was something wrong with it.

I started to connect the dots back to unexplained illnesses, and it all started about three weeks after the drilling began in 2010.

When we stopped using the water, we noticed that some of the sicknesses began to somewhat subside.

It started to sink in that the ailments we've been having for the past couple of years were connected to the drilling.

All the children, my husband, and myself were getting severe recurring headaches.

My kids and husband were getting nose-bleeds.

One of my daughters got an unexplained virus, and missed so much school. 32 days of school in a row at one point, that a doctor thought she had mono. But, blood work came back negative for mono.

She had fatigue, felt weak, was pale, had no appetite, running a fever, muscle aches, and had a very upset stomach.

It seems like all of our stomachs were always upset.

My-then 17-year-old son was diagnosed with asthma. He had been healthy up until this point. And, then, all of a sudden, at the age of 17, he got asthma. He couldn't even participate in gym, and even running laps.

I had excruciating body aches to the point where painkillers didn't even work, and you couldn't

sleep.

There were so many upper-respiratory infections that I can't even tell you how many times we went to doctors and to the emergency room.

I remember a time, I was doing one-minute showers, like the Health Department advised, when the water appeared to be clearer.

One night, I got into the shower, and not even 30 seconds later, my skin started burning. I started getting stinging welts and hives like my skin was just like on fire.

I jumped out of the shower and yelled for my husband.

He took picture of my arms and legs.

He turned the water back on, and asked if I had looked at it -- because it was filthy brown -- when I began my shower.

And I told him, it did not look like that when I started the water.

All of us would get headaches so bad that our eyes would get bloodshot, and would actually vomit from the headaches.

I remember one instance, when my husband, Gino, was outside, and I was in the house, and my head started to feel like it was going to explode.

I could barely see or stand, or even reach to a telephone to call my husband's cell phone for help.

It was so frightening.

My children have gone through brain scans as well.

High levels of methane exposure can lead to lack of oxygen to the brain. Every six months, they have to go for brain scans.

Doctors aren't able to do accurate blood tests because nobody has a clue as to what chemicals they are dealing with.

It makes me sick to my stomach, scared, and horrified, to think of my children becoming sick from this drilling.

I don't think that there is any parent out there that wants to think about their child getting cancer, or dying.

When your children have been exposed to something purposely, because a gas company injected these chemicals into the ground and your water becomes contaminated, and the children bathe in it, swim in it, it is a crime, in my eyes. It makes me furious.

I can't believe they are allowed to do it.

If you or I were to contaminate someone's

water and poison them, it would be considered a crime.

How are these companies getting away with it? I'm still shocked.

I worry so much about the long-term health consequences on my family.

Our water was crystal clear before the drilling. Now we don't know what's going to come out of our faucet.

Sometimes the water comes out cloudy; yellow, green, gray. When the water sits for an extended period of time, sediment settles to the bottom.

Somewhere -- wait a minute. I'm sorry.

Okay.

Sometimes the water looks almost clear, but hazy.

The water always starts on fire, though. That's the one constant in my home.

Our live are so different now.

Now that we don't have clean water, we buy a lot of water for bathing, cooking, and drinking; somewhere between 50 and 100 gallons we purchase of water a week. And, my husband also goes to his mom's house, which is about 45 minutes away, to fill up 100 gallons of water also.

I warm the water on my stove and we use it to sponge bathe.

Other than sponge bathing, the children and I have to travel to my father-in-law's house to take showers, an hour a way, twice a week, so the kids can take regular showers.

I don't even wash dishes anymore. I have to buy throw-away plates, spoons, cups, and forks. I don't trust the water coming from the tap. I can't afford to buy water to clean dishes.

Laundry is really hard because there's ten of us. There's a lot of laundry.

So, when the water starts to look clearer, I begin to do laundry.

My machine is a front-loader without an agitator, but I noticed it started shredding and ripping the clothes apart. Holes would start popping up in towels or in the middle of a shirt.

Why? I don't know.

I try to go you to the laundromat, but I can't always afford it. It's extremely hard. It's extremely expensive.

Any kind of savings we had is totally depleted. We're lucky to be making it month to month.

If it weren't for the help from my dad, I probably wouldn't be able to feed my children.

We've been trying to find a place to move, but nobody wants to rent to somebody with eight children.

My husband and I have even thought about getting two apartments and split our family up for safety reasons. But, we can't even do that because we can't afford it. We can't afford two rent payments, two electric bills, two phone bills, two garbage bills.

We just can't afford that, so we keep looking until we can find a place to move. I'm constantly looking for a place.

Originally, I had moved to Springville to get away from the city. I thought I was protecting my children.

Now we're away from the city and we're in a good school district, but we're not in a safe home.

A lot of other people in my area are not in a safe -- are not in safe homes either. Other people in my area have abandoned their homes. Sometimes they put gas bills right next to their house.

No one wants drilling where I live.

Hydrofracking needs to be banned in

New York State, and my neighbors would agree.

It's already devastating New York State, and will only do more damage.

I pray to God that New York State bans hydrofracking.

My life has been turned upside down and inside out.

I never would have imagined that my water would start on fire. My water would never put a fire out. It's an accelerant, in my eyes.

My life has been changed in every negative way possible. It has caused us to, financially, really struggle, and emotionally struggle, because we're constantly worried about our children, and if they are going to come down with cancer, or other illnesses, because of what they have been exposed to.

I have no idea what all the other things are that are in the water. I can't get an honest answer from anybody.

The only thing I am positive is, is that the gas company broke our water table and contaminated my drinking water.

It's enormous amounts of stress on our lives. We just wanted to live a simple life, and raise our

children.

Now we have to deal with flammable water, a lying gas company, and having to worry about our children's health and future.

I don't know if we're going to blow up in that house.

Who wants to live their life that way? No one should have to. This should not be going on anywhere in the United States.

I am not an activist. I am just a mom.

I'm a mom who will live in fear of always wondering if my children will come down with cancer, or some other horrible illness.

Who could imagine that letting my children drink tap water would put their lives in danger?

This is why I have decided to go public and speak out, so that nobody else will have to go through this nightmare.

I traveled ten hours to come here to this hearing, because I want you to know that vertical fracking is happening in New York State, and I am a victim of it, along with my husband and my eight children, and a lot of neighbors in my area.

We cannot trust the gas industry with our future; nor can we trust the DEC who is turning a

blind eye to the devastation hydrofracking causes.

Who do the DEC work for: us or the gas industry?

Thank you.

SENATOR BALL: Thank you so much for driving, and for your courage.

[Applause.]

SENATOR STEWART-COUSINS: Thank you very much.

SENATOR KRUEGER: Thank you.

NATALIE BRANT: I also have, if you would be interested, in my area, right where I live, in my backyard, these are all of the gas wells, in the circles. And I have pictures of open frack pits.

SENATOR BALL: And this water here, do you want to show the water that you brought?

NATALIE BRANT: Yes, yes, yes.

[Mrs. Brant approaches the Senators' table.]

[Off-the-record conversation commences.]

[Video of a local television news channel report is played.]

SENATOR KRUEGER: Thank you.

SENATOR BALL: We'll follow up.

NATALIE BRANT: Thank you.

SENATOR BALL: Thank you so much.

Do you want to keep this with me, or -- make sure we get a copy of it.

I mean, we can either get a copy -- okay, make sure we keep a copy of it.

NATALIE BRANT: Thank you.

SENATOR BALL: You pulled that off the DEC website?

Okay.

SENATOR KRUEGER: Thank you.

SENATOR BALL: Claire.

Hi, Claire.

CLAIRE SANDBERG: Hi, Senator.

SENATOR BALL: How are you?

CLAIRE SANDBERG: I'm good.

I'm really happy to be here. And, I just want to thank you so much for holding this hearing, and really approaching this issue with an open mind. I think it's really incredible.

So -- and thank you, Senators Stewart-Cousins and Krueger, for also being here and listening to this today.

SENATOR BALL: Thank you.

CLAIRE SANDBERG: I just want to address, head on, the issue of perceived support for this

industry, because it's easy to hear stories like Natalie's, and think that that is the exception and not the rule.

And I think it's really difficult for people in your position to see the level of very passionate support for this industry, and reconcile that with all of these devastating impacts that you're hearing about, especially when polls are showing that there are a number of New Yorkers who believe that some level of environmental or health damage is justified if the rewards, jobs, energy, royalty checks, are great enough.

So, the natural-gas industry is, very obviously, selling the public on a level of reward beyond anything that we ever could have imagined was possible.

"Right below our feet," the story line goes, lie, not one, but two Saudi Arabias of natural gas, that will make America energy independent and revive our struggling rural economies."

"A pot of gold on every field," is the kind of story that we're hearing.

But, are these wild promises actually supported by the facts? I think is the important question.

Much has recently been made about whether the gas companies have misled their investors about the economic and energy benefits of shale gas. But, uncovering the truth is even more critical to the landowners and communities who have staked their future on the claims of these gas companies.

In the Southern Tier, the narrative about people becoming overnight "shaleionaires" has been told, and retold, for several years now.

And the gas industry enjoys relatively strong support among many residents, most of whom have a perceived financial self-interest in this industry.

With the standard royalty rate of 12.5 percent on most leases, many large landowners are banking on receiving $32,000 per acre, per year, over a period of 50 years; or, 2.5 million per well, over 50 years.

So, with numbers flying like -- numbers like that flying around, it's not hard to understand why people convince themselves that the risks are overstated or justified; that they'll be one of the lucky ones; or, that if contamination does occur, that they can just move away.

And, people are making those calculations.

So, unfortunately, the promises are not borne

out by the facts.

First, it's important to note, that most leaseholders in this region, when it comes down to it, royalties is where they would be getting compensated. It's not from signing bonuses.

Although there have been a few highly publicized stories of leaseholders receiving signing bonuses of $4,000 an acre, most people who sign leases receive far less than that, with people signing away their mineral rights for $5 an acre, commonly. Or, even $1 an acre. Or, even, just free gas.

There are actually a lot of people who sign for just free gas. Most of those people were some of the early signers. They thought that this was just the same conventional drilling that had always happened. And, they thought it sounded like a good deal.

Also, a number of the landmen who initially came around, told people: All of your neighbors have already signed, so you might as well get something out of it.

And they're very persistent. And they manage to get the best deal.

And, then, perpetually, that ceiling went a

little higher, and then you have a few people who ended up really getting a windfall.

But, that's not common.

So most people were not making the money, up-front, on those signing bonuses.

And, when the gas actually starts to flow, what happens then?

To begin with, many leaseholders in Pennsylvania have discovered that a large portion of the production costs are subtracted directly from the royalty payments that they would receive, with the industry granting itself enormous control for creative accounting, with no transparency on when the company actually begins to make a profit.

So, costs, like rebuilding county roads, which appear to be a service for the community, donated by the industry, are actually deducted directly from leaseholder royalty payments oftentimes.

But, more importantly, many of these wells are not performing the way the gas industry promised that they would, to their leaseholders or to investors.

As in the "Times" recently documented, there's a growing sense of a rational exuberance

about the shale-gas market.

In the Barnett Shale in Texas, companies released glowing reports of production at early wells drilled at the confirmed sweet spots, and extrapolated that production data to assess the value of the entire formation.

We know that the industry also did this in the Marcellus Shale in Pennsylvania, with the two sweet spots of, Dimock, in south -- south -- sorry, in northeastern Pennsylvania, and, Hickory, in southwestern Pennsylvania, being the places where the industry started off.

Based on data from the Barnett Shale and, increasingly, from the Marcellus in Pennsylvania, we've seen that the overall performance of the shale deposits is not uniform across the formation; and, largely, does not match the early predictions based on production in those sweet spots.

We also know that, contrary to the promises of this industry about a continuous flow of gas profits and royalties over 50 years, gas production declines dramatically after the initial rush.

The average life of a Barnett Shale well was 7.5 years. And, data have shown that production at high-volume hydraulically fractured wells has

declined about, 75 percent in year one, 35 percent in year two, 25 percent in year three, and 12.5 percent in year four, and 10 percent in year five.

So, that's a precipitous decline in the amount of gas that's coming out of these wells.

And, with the 2008 Securities and Exchange Commission rule change, written about in the series, allowing gas companies to keep secret the methods they use to actually calculate the size of those reserves, it's no wonder that insiders are now calling shale gas a Ponzi scheme.

So, it all adds up, when you realize that the major drilling companies are not actually even holding the risk themselves. They are passing the actual lease rights on to third-party investors.

These companies, like Halliburton, Schlumberger, Chesapeake, primarily make their money on two things: financial speculation, and drilling services.

In other words: They make money whether or not gas is actually produced.

An analogy that was recently described to me, was, that: The gas companies have, essentially, told everyone that there is gold in the beach, and

they're selling everyone metal detectors.

"They're not in the gold business, they're in the metal detector business"; which, I think is a really helpful analogy.

So, what all of this tells us, is that this industry, and their entire basis of support in rural communities, is built on a house of cards.

The natural-gas propaganda machine has convinced the public that shale gas will power America for 100 years while making us all rich.

But the gas industry's record in other states calls into question: How much gas can actually be extracted, and whether this industry is, in fact, profitable.

And that's extremely important to weigh against the fact, that, by moving forward with this industrial project, on any level, in New York, we can expect to see massive environmental and public-health impacts, a steep decline in property values, devastation to agriculture, tourism, small businesses -- the life blood of truly sustainable economies in Upstate New York -- as other speakers have talked about.

So, I don't think it's accurate for this debate to be characterized as "risk versus reward."

It's been characterized as: Risk versus reward; economics versus environment.

But, in reality, this is a lose-lose prospect for environment and economy.

The rewards, when it comes down to it, are minimal, and not widely shared.

And the risks are not hypothetical. They are inevitable.

This industry has proven problems that have not been solved.

As was mentioned before, Anthony Ingraffia, of Cornell, has said that industry documentation is showing 5 percent of well casing is failing automatically.

That's 1 in 20 wells failing, with groundwater becoming contaminated with methane and chemicals, automatically.

So, it's not surprising that Duke University did find that water contamination, at dangerous levels, is occurring in a majority of water wells near active gas-drilling sites in Pennsylvania.

A majority.

And, over time, we know that all well casing will eventually fail. It's just a question of, how long?

And we don't know what the long-term impacts of that will be.

As has already been said today, that, you know: Groundwater contamination; not just a risk, but a certainty. And, then, above-ground contamination; not just a risk, but an immediate certainty. -- the problem of disposing of millions of gallons of this toxic, radioactive wastewater.

And then, of, also, venting and evaporating, that same water into the air poses enormous threats to the -- to public health.

And, as Josh mentioned earlier, along with this wide-spread and certain contamination --

[Off-the-record comment is whispered to the speaker.]

CLAIRE SANDBERG: Okay.

-- threat of catastrophic accidents and blowouts.

So, I just want to say: All of this adds up to a very different outcome, obviously, than what is presented in some of the slick Exxon ads that we see over and over again on television.

And, I know that you're in a very difficult position of having to say, "no," or "not yet," to people who are very passionate, and have a perceived

economic self-interest.

But I think, when it comes down to it, I encourage you to go, as Senator Ball did, to Bradford County, and meet the people. It's not very hard to find people who lease their land for $5 an acre.

It's a little bit more difficult to find some of the shaleionaires.

And, meet the people who going through this, and see whether we want to bring this industry here into New York.

Because, when all is said and done, you know, if we move forward; if we say, Okay, we've studied this long enough in New York State, let's march ahead. We've looked at the risks and the rewards. -- and, then, everything is devastated, and the perceived -- all of the perceived benefits, the jobs and the royalties, don't come rolling in as people were promised, I think some of the same people who are very supportive of this industry are going to start looking around, wondering: Who know knew about this beforehand? And, why didn't anything happen to protect them?

SENATOR BALL: Thank you, Claire.

[Applause.]

SENATOR KRUEGER: One question, Claire, and perhaps you don't know, but maybe one of the other testifiers: Nobody's yet talked about concerns about seismic activity and earthquakes.

And I'm just wondering, is that because, when we did the original scope of what to study, nobody even knew that was something that we should worry about?

Have you done any research into that?

CLAIRE SANDBERG: Well, some of the seismic impacts in Arkansas were related, actually, to deep-well injection; disposal of the wastewater. And that was actually near an active fault line.

So, from what I understand, some of the earthquakes declined dramatically -- and I think Josh actually went to Arkansas and investigated this -- after they stopped doing the deep-well injection near those fault lines.

So, some people did think: Well, this wasn't related to fracking. This is related to wastewater disposal.

But, there was recently another report of an earthquake in England, near an actual fracking site.

So, I think that there are a lot of questions that remain to be answered on that issue.

SENATOR KRUEGER: Thank you.

SENATOR BALL: Okay.

Thank you, Claire.

All right, Adrienne Esposito, Citizens Campaign for the Environment.

[Comments, and discussion, off the record.]

SENATOR BALL: Adrienne.

ADRIENNE ESPOSITO: Good afternoon, Senators.

First off, I have to give you a heartfelt "thank you" for being the three senators who are here.

You're listening. You're still here.

I have been to many of these hearings. Many senators stay for the first 15 minutes, and leave.

So, you're terrific. Thank you.

The purpose of --

[Applause.]

ADRIENNE ESPOSITO: The purpose of a Senate legislative hearing, I believe, is twofold.

One, is to educate, but the other is also to give you ideas of what you can do, and what needs to be done.

We have some suggestions for you. And I'm going to be very quick, and I'm not going read my

comments.

You'll also be happy -- he's shaking his head vigorously.

SENATOR BALL: I love it.

ADRIENNE ESPOSITO: Number one is: We would strongly urge you to suggest to our -- Governor Cuomo, and also to DEC Commissioner Joe Martens, to take the trip you did, because it's one thing to evaluate policy, to evaluate environmental impact, to evaluate the scientific impact. It's another thing to understand the human experience that results from that analysis.

That's what you've done, and that's what I believe has compelled you to hold this hearing.

That's what "they" need to do; they need to understand how their policy translates into our lives.

So, we would ask you to take that message back.

The second thing has been said before, but it is worth saying again: We need, We want, We deserve, 180 days to evaluate this policy.

The first draft environmental impact study generated 15,000 public comments.

15,000 members of the public, got up out of

their seats, they read an EIS, and they commented.

Why? Because we care. That's why.

We care about losing what it is we love about New York State.

We deserve that then -- we deserved it then. We deserve a longer comment period now.

Another thing which has not come up yet today, which I'll happily bring up, is that, what you can do, is you can eliminate, what's called, "compulsory integration."

"Compulsory integration" is when homeowners are forced to sign away their land to the energy company.

But, please, don't take my word for it. This will be the one time I do read.

This is directly from the DEC website.

"Effective August 2, 2005, an applicant for a permit to drill an oil or gas well in New York State must include, in the permit application, a map showing the area that will be assigned to the well. This area, called the 'spacing unit,' may include, some, or all, of your acreage, even if you haven't signed an oil-and-gas lease."

This practice does not allow the public to make the decision of whether or not it will allow

gas drilling on private lands.

If a majority of landowners, in any given area, allow for gas drilling, then the remaining landowners are integrated.

This is not a New York policy. This is not an American policy.

You can help us to fix this policy. And, we are hereby requesting that.

The second thing: We've heard a lot about treatment of the wastewater.

But, did you know, that the DEC, before, or, have nothing to do hydrofracking, has estimated that our wastewater upgrading needs in New York State are, currently, 36 billion, with a B, dollars?

We need that money just to upgrade and modernize our antiquated sewer infrastructure so that we can actually treat the water up to new standards.

And, we need it, to make sure our public health is protected, and for increased capacity needs.

So, what will we do with this additional hydrofracking fluid waste?

Apparently, we're going to discharge it to a list of pre-approved sewage-treatment facilities

that have pre-treatment industrial-waste treatment abilities.

Where will it go?

Well, apparently, all over New York: Great Lakes, Onondaga Lake, Hudson River, estuaries of national significance, like, the Long Island Sound, Jamaica Bay.

Is this good planning? I don't think so.

The problem here, is that, do these treatment facilities take out those radionuclides? No.

Do they take out the massive number of brine that is generated? No.

Will they treat the volatile organic chemicals down to zero? No.

Does this seem to bother the DEC? No.

That's a lot of nos.

[Laughter.]

ADRIENNE ESPOSITO: One of the problems is, is that, these -- you know, this waste product has a suite of VOT -- of VOCs, called "B techs (ph.)." That's a short way of saying: benzene, toluene, ethyl benzene, and xylene.

And what we'll do, is, we'll treat them down to standard. So, we're just going to poison those water bodies a little bit. And, then, we have no

way of treating for the radionuclides. And the brine is going to be a big problem.

Let's talk about those radionuclides, shall we?

I know you heard a lot about it today, but let's remember, after all, I was just told this just the other day by a DEC person: Adrienne, those are norms; naturally occurring radioactive materials.

I was waiting for the soft glow to come over me and make me feel all warm and fuzzy about it. And, it didn't actually come.

Yes, they are naturally occurring, two miles down in the earth.

They are unnatural to be, drinking, and breathing.

Let's be clear: Uranium 235, Uranium 228, Uranium 238, radion -- Radium 228; we're not meant to drink it.

Uranium is an alpha emitter.

Alpha radiation, when it is ingested, either through drinking water or inhalation, is one of the most dangerous substances known to our species.

It doesn't belong in our drink water.

So, even though these are naturally occurring, it is not natural for us to drink them.

What can you do, you might ask?

We can tell you.

This wastewater is now, as we said earlier, treated as non-hazardous.

You can change the law.

We ask you: Change the law. It should be hazardous.

It's a miracle, what happens.

The cocktail of chemicals arrives on the trucks to the site. It says "hazardous waste."

Then it's mixed in with the water. It's shot two miles down. It comes up, abracadabra, it's no longer hazardous.

The earth is a miracle, apparently. We know that's true.

But, in this case, classification is a lie.

We're asking you to change the law.

It's hazardous. Let's treat it as hazardous.

The energy company doesn't need one more break, and the public needs your protection.

Couple of last things, real quick.

No one talks about cumulative impact.

We like to talk about that.

How many leases are in New York State? Nobody knows.

We said to the DEC, for instance: How many leases are in the Finger Lakes?

They said: We don't know. We can't do cumulative impact, Adrienne. We don't know.

We said: All right, well, we're going to find out.

18 months it took us.

See that beautiful map there?

As it turns out -- as demonstrated by your staff -- there are over 20,000 leases in the 8 counties that we evaluated.

There are over 600,000 acres in the Finger Lakes leased already to gas interests. It represents approximately one-third of those counties.

What is the cumulative impact? It's not in the DEIS, because the DEC didn't know.

It took us 18 months. Sent out an army of people, to go to every Podunk little community and look up the leases, and then map them using GIS.

Big project.

This hasn't been done for many of the areas in the state.

What we don't know, can't hurt us.

Ignorance isn't bliss. Ignorance is

dangerous.

The other thing that we feel is very important here to know, is that -- it was said earlier by that wonderful pediatrician who testified -- the health impact hasn't been assessed.

Well, that's amazing, considering, it is supposed to be assessed under state law. It's called "SEQRA"; State Environmental Quality Review Act.

We're supposed to look at the health impacts.

Lastly, I just want to add, that the energy industry not being here is a message to you guys. It speaks loud and clear.

I'm an environmentalist. I show up in many industry hearings. Sometimes I'm the only one, but I show up.

Why? Because the truth seeks to be heard. Lies seek to be hidden.

That's what happened here today. And that's what you're seeing.

If I'm a, you know, five-foot-three, middle-aged woman working for a non-profit, and I show up, they damn well can show up also.

[Applause.]

ADRIENNE ESPOSITO: The last thing I'm going

to say is, and, Senator Ball, you said it best earlier, "This is New York."

So, we have a message for the energy industry.

We will not be intimidated.

We will not be hunted down by industry thugs.

We will not allow our water resources to be contaminated, nor our neighbors to be poisoned.

And we sure as heck will not be silent.

We will not allow what the poor Pennsylvania community has gone through to occur here.

So, that's a message I think that needs to be heard loud and clear by the energy industry: "This is New York, and we're not going be silent."

I just want to tell you this one quick story.

I was part of the -- of Governor Cuomo's energy and environmental transition team.

And, as part of that, we actually had a very long conversation with John Hanger.

Now, the folks in Pennsylvania are probably -- their hearts are beating faster right now, they're getting nervous.

John Hanger was the DEP commissioner in Pennsylvania when a lot of this hydrofracking occurred.

And, so, as part of this interaction, I asked him: What can you say you learned? What is the greatest lesson you learned from allowing hydrofracking to go forward in your state, that New York can know?

And he, like, hemmed, and he hawed, as if he was reaching deep into his memory banks, and finding something that maybe they didn't do so well.

He said: Well, there is one thing. We wouldn't do it without the regulatory staff. You need regulatory staff to make sure it's done right.

That was the one thing he came up with.

Not all the people he poisoned, but, that's a second story.

[Laughter.]

ADRIENNE ESPOSITO: So, I said, you know -- so, here we are. We heard testimony.

The DEC has been cut by 20 percent. We keep cutting it. We don't have the regulatory staff.

Senators, what we're asking for you to do, is to help us.

What we're asking you to do, is to protect our greatest asset in the state; and that's our water resources.

Albert Einstein said, "Intelligent people

solve problems, and brilliant people prevent them."

We're asking you to be brilliant for us.

Thank you so much for your time today.

SENATOR STEWART-COUSINS: Thank you.

[Applause.]

[No audio and video; technical difficulties.]

SENATOR KRUEGER: I have a quote from Commissioner Joe Martens, the head of our DEC, that's -- it was fairly recently.

"Currently, no wastewater treatment plants in New York are equipped to treat, or permitted to accept, wastewater with the range of contaminants expected to be in the fluids produced by high-volume hydraulic fracturing."

So, if he's on record as saying, we don't have plants that can handle this, how do we have a list of the plants this wastewater is going to go to?

ADRIENNE ESPOSITO: The list is an appendix from the draft EIS, of sewage treatment plants that have, what's called, "a pre-industrial waste-treatment ability."

So, this is a list. Its called "Appendix 21," right from the DEC.

"Publicly Owned Treated Waterworks With Approved Pre-Treatment Programs."

Rolls right off your tongue.

And, this is, again, the: Supplemental Generic Environmental Impact Statement, Revised Draft.

This is, that appendix.

So, I'm happy that he says that verbally; however, what the paper trail says is something a little bit different.

SENATOR KRUEGER: That was the point I wanted to get. Thank you very much.

ADRIENNE ESPOSITO: Oh, see, I'm so happy that I could clarify that with you.

SENATOR KRUEGER: Thank you so much.

Thank you.

SENATOR BALL: Okay.

ADRIENNE ESPOSITO: Thank you.

SENATOR BALL: Thank you so much.

Okay, Paul?

Paul Gallay, from Riverkeeper.

PAUL GALLAY: Good afternoon, Senators.

I've learned one thing today: I have to be nicer to whomever on the staff put me after Adrienne.

[Laughter.]

PAUL GALLAY: My name is Paul Gallay. I'm the president in Hudson Riverkeeper, at Riverkeeper Incorporated.

I'm an environmental lawyer, and activist, of about 25 years' standing.

I was a DEC manager, for ten years, in their regional office in New York City.

For three years before that, I represented the DEC at the Attorney General's Office.

So, I don't make any of my following comments lightly, but I do make them with some sense of what it's like to be a regulator, and what proper standards are for regulation.

I have handed up two documents.

One is a copy of our Fractured Communities report, which certifies, what you heard in abundance already, how real these impacts are.

And the other is a brief PowerPoint-style presentation, that I should be able to take care of well within 15 minutes.

Long story short: There are several things about fracking that haven't gotten adequate attention, even at the environmental-impact-analysis level.

For example: We were told, at the beginning of July, when this issue commenced, that there would be socioeconomic impact.

And I'm sure one of the earlier speakers, if not more, has said, we need to see, not just a socioeconomic-impact analysis, but one that is robust, and fearless, that analyzes:

What happens in communities to their tourism?

What happens in communities to their agriculture?

What happens in communities when the boom becomes a bust, as it has in West Virginia, as it has in Wyoming?

If you look at studies by academic institutions in drilling states, you will find that counties that make a big proportion of their income on natural gas or oil extraction do not do as well, overall, over time, as communities that do not do so.

The boom-bust cycle and the impact on other industry has to be considered, because everyone knows that, environmentally, this is a net loss.

But what people have to understand is, economically, it is a net loss as well.

One of my screens that I have given you says,

that the Department of Transportation did a study in 2009, that said there may be as much as $375 million in road costs that come directly from this sort of exploitation of the shale.

You know, one of the other slides talks about how many trucks there are that go in with water to a typical well; 5 million gallons, which isn't even the largest of the wells.

1,667 trucks, just for the water.

Another 750 trucks for the proppant, which is the material that they use to wedge open the shale.

And, then, there's the return water which also has to be trucked out.

SENATOR BALL: That's the fracking? That's for fracking the well?

PAUL GALLAY: That's for the fracking.

And for the return water, it's, probably, about a 30 to 40 percent of that.

So, you have road impacts.

Other speakers have mentioned the Duke study.

There's one very important thing to be remembered about the Duke study, and I give you a screen from their study, which shows the astronomical numbers of methane concentrations within 1,000 meters from a wellhead, and how much

higher it is.

You see, it's all up in the high range. And, then, when you get out in the distance, it's all down in the low range.

And what the industry says, is, "It's naturally occurring."

Amazing, how it's naturally occurring 17 times more within a mile of a fracking well.

And, amazing, how, even if it's naturally occurring, it has radiological elements and other chemicals that are traceable down to 4,000 feet below ground.

So, the fingerprint of this material is different from what's naturally occurring shallower.

It is an out-and-out lie to say that this is naturally occurring gas in the shallow areas.

Let me say that again: "An out-and-out lie."

It's different.

It's got a different chemical fingerprint, and it's in much higher concentrations when it's near a wellhead.

You guys do the math.

To move on, I'm sure that there has been enough already discussed, in terms of the radiological elements that are brought up from the

drilling.

But, remember, the screen that I have, which is directly from "The New York Times" study back in February, shows that it's not just a little above, and then it will be diluted before it gets to a water supply. It's as much as 1,500 times above federal standards.

Remember, too, we learned from that "New York Times" study, that the American Petroleum Institute admitted, in a confidential study in 1990, that, the amount of radiation that comes up in these wells in the Gulf, is quite likely to cause an elevated number of cancers in people who eat fish from the Gulf.

They didn't think that study would see the light of day.

It did. It was leaked to "The Times," and now they have to wear it; they have to acknowledge it.

One of things that I would like you to understand, is that, the Department of Energy study, which was released last week, was released by a panel hand-picked by Secretary Chu.

And, of the seven members of that panel, six were either consultants to the gas industry or board

members of the gas industry.

And I testified to that panel.

And I looked at Chairman Deutsche of that panel, and I said, "I hear you talking about this as if it's a public-relations problem."

He said, "Fracking has gotten out ahead of public confidence."

And I said, "It's not a public-relations problem. It's a public health and environment problem. And until you and the industry treat it that way, not only will you not solve your PR problem, but you will not protect the people that you are duty-bound to protect."

And I'm very happy to say, that when the report came out last week, it told the industry: You want to get this gas out of ground, you want to stop using so much foreign oil, you want to make a lot of money on this fuel, you better do a better job of it.

And you know what the industry said back to this panel that was made up of consultants and board members and experts of grand standing?

They said, "They don't understand our industry. That's why they've come to the conclusions they've come to."

What Chutzpah!

A hand-picked panel of their own comes down against them, and they say, "They don't understand our industry."

So, I'm going to tell you what should be done, and then I'm going to allow others to speak, and for you all to wrap up.

Industry has got to change its stripes. It all starts with the industry.

I regulated industry for 13 years, and I could tell the good from the bad from the ugly.

And the ones who stayed in business, the ones who did good community service, who served the triple bottom line -- economics, environment, and social -- they acknowledged the facts. They didn't run from them.

And when you look at the page of my testimony that says, "Industry, in denial about fracking impacts," and you look at the head of the Marcellus Shale Coalition, the lead industry group for the Marcellus Shale, and she says, "People are trying to draw a connection between Marcellus drilling and water pollution." -- and you say, you know, Is there no shame?

Then there's another great one, from the

Petroleum Association.

"Fracturing is one of the gas industry's crowning achievements."

This is the same group that said, in 1990, "We're probably giving people cancer from the radiation we're bringing up from deep within the ground."

So, that's the first thing.

And with the gas at $3.92 a million BTUs, down 66 percent from just a year ago, do you think that they're going to invest in what is necessary to do this right? I don't think so.

So, I'm going to mention four or five different things. That's only the first.

If you get four out of the five, and you don't get the fifth, it's still not safe.

The second thing is, the DEC is -- it's on a merry chase, if it thinks it can create this environmental impact statement, and start permitting.

You know, for both legal reasons and for commonsense reasons, if they try to start permitting, before they have regulations, just when they have the environmental impact statement, it is patently illegal.

The gas companies can challenge any permit condition that's based on the EIS, but doesn't have any regulatory backing, as beyond DEC's powers.

The public doesn't have the right to make sure that the standards being implemented are subject to proper rule-making and subject to potential judicial challenge. So, we may not get what we need.

Joe Martens issued a report on the 16th of August to his new panel, that said: You know, we don't have enough staff right now to do these, even if we had good strong law or regulations. But, we'll only process the permits we have staff to handle.

Totally contrary to the Uniform Procedures Act, which requires the agency to process as many applications as they get, within a timely fashion. And timely is not something where it's a matter of opinion: 60-day timetables, 30-day timetables, 90-day timetables.

And, so, DEC is vastly underestimating the number of applications that they're going to get, because they don't have the staff to handle it.

I think it's a cry for help. And I hope that the Governor's office is listening.

The pace of permitting will not be dictated by the ability of the staff to handle those applications, as that August 16th briefing from the DEC says, but by their legal requirements to process as many applications come in.

So, industry needs a new attitude.

Will we get it? Don't see it myself.

DEC has to realize that they cannot regulate based on an environmental impact statement, and they cannot just permit as many wells as they have to the staff to handle.

It's been mentioned that we need legislation, requiring fracking waste that is hazardous to, wow, be treated like a hazardous waste. Pretty radical concept.

We need 180 days' time to review, not only the environmental impact statements, but as many others have very eloquently put it, health impacts and socioeconomic impacts as well.

Remember, boom-bust cycles, tourism, agriculture.

You know, everyone knows, it would be great if we could get this gas out of the ground safely. Everybody knows, it would be nice to have a sustainable energy future, that not only within the

U.S., but even within New York State.

But, just because you want the gas, doesn't mean you get to have it.

If you can't do it right, if you can't do it safely, don't do it at all. We are not so desperate for this gas that we cannot find substitutes, so that we don't poison the very people we're supposed to be saving by providing for the state's energy future.

Thank you.

SENATOR BALL: Thanks, Paul.

[Applause.]

SENATOR KRUEGER: Paul, like Environmental Advocates, Riverkeepers is actually on this committee that the Governor has created?

PAUL GALLAY: Waterkeeper Alliance is. I know it's a fine-line distinction.

SENATOR KRUEGER: Oh, so it's not your organization that is?

PAUL GALLAY: But, bobby Kennedy works with us, as well as Waterkeeper Alliance. And whatever Bobby does with Waterkeeper Alliance, we're proud to own also at Riverkeeper.

SENATOR KRUEGER: So, what's your recommendation to others who are on this panel, of

how they should be proceeding?

PAUL GALLAY: Everybody says: We hope fracking can be fixed. We'd like it to be fixed, 'cause we'd like to get that fuel supply.

Don't get co-opted to accept a partial fix. Or, what they used to call, "a Potemkin Front," which looks like a fix, but then, when you walk around to the side, there's nothing behind it.

SENATOR KRUEGER: Uh-huh.

PAUL GALLAY: Have high standards, and don't diminish them.

SENATOR BALL: Thanks, Paul.

PAUL GALLAY: Okay, thank you all.

SENATOR KRUEGER: Paul, one more question.

SENATOR STEWART-COUSINS: Well, I just -- just to follow up on what you said, I mean, one of our earlier speakers said that they didn't believe there really was a fix.

What's your sense?

PAUL GALLAY: I don't see all of these planets aligning in a way that this can be done safely. But, while -- I give it a minuscule chance of success.

I think we benefit, if we eventually sue to challenge permit issuance, by keeping faith with the

process, and really bird-dogging it, and raising every issue there is to be raised, as I have tried to do here today, all along.

And, then, when a judge hears that we stood in there, and we were the loyal opposition, I think the judge will take our points that much more seriously.

SENATOR STEWART-COUSINS: Thank you.

SENATOR BALL: Thanks, Paul.

Okay, second, right now is, Katy Dunlap, from Trout Unlimited.

KATY DUNLAP: Thank you, Senator Ball, for hosting today's hearings.

And, Senators Krueger and Stewart-Cousins for joining the Senator today.

My name is Katy Dunlap, and I am an attorney, and I'm also the Eastern Water Project Director for Trout Unlimited. We are the nation's largest cold-water conservation organization, dedicated to conserving, protecting, and restoring North America's trout and salmon fisheries.

So, you have heard this morning about the environmental and health impacts to humans and to communities.

I would like to take a slightly different

tact today, and talk a little bit about the sportsmen and -women's perspective, and our concerns about this type of drilling on fish and wildlife.

To you, as a family member of the Sportsmen Alliance for Marcellus Conservation, we are a coalition representing more than a dozen sportsmen conservation organizations and 60,000 members throughout the Marcellus Shale region.

Both to you and the Sportsmen Alliance, support responsible energy development, but, obviously, we want to make sure that this drilling is done properly.

At this point, we do not believe that any state is adequately regulating and overseeing Marcellus Shale drilling and hydraulic fracturing.

Together, to you and the Sportsmen Alliance, are identifying the impacts of Marcellus Shale gas development on hunting, fishing, trapping, other outdoor-related recreation, as well as fish, wildlife, forest, and water resources.

You've heard from experts today, talk about some of the economic impacts, and the impacts to particular economies.

We're concerned about the impact to the

recreational and tourism economy.

Hunting and fishing in the Marcellus Shale region is not just a pastime. It's big business.

According to the U.S. Fish and Wildlife Service, more than $3.2 billion is generated each year in New York from fishing, hunting, and wildlife-related recreation.

And a significant number of the more than 5.5 billion sportsmen and -women in New York spend their time and money in the areas that overlie the Marcellus Shale region; primarily, the Catskills, the Delaware Basin, the Finger Lakes, Central New York, and the Southern Tier. And, their experience and health is at risk, as is the revenue they generate for the local communities.

In the first seven months of this year, Pennsylvania's DEP issued more than 800 violations for Marcellus Shale-related pollution incidents and illegal activities, with nearly all of those violations related to impacts to water resources.

Accidents can happen, sure. But, proper planning, oversight, and enforcement can help to limit those impacts from such drilling-related incidents.

The question becomes: Will New York conduct

the proper planning, and provide the proper and necessary oversight and enforcement?

In order to protect New York's valuable fish, wildlife, forest, and water resources, the State must spend the necessary time planning for the impacts on these irreplaceable resources, and propose policies and laws that eliminate those impacts.

Echoing earlier experts, New York must not rush forward without a cumulative assessment and build-out of all wells and related infrastructure, such as pipelines, compressor stations, and the such, as well as, water withdrawals, and anticipated wastewater volumes and treatment plants in the state.

And, this type of analysis should really be done on a watershed-by-watershed basis.

In the revised draft document that the DEC has put out, they claim to have addressed cumulative impacts. But, by merely stating that -- for example, they claim to have addressed the cumulative impacts of the water withdrawals.

And, they merely state, that their proposed stream-flow-analysis requirements addressed cumulative impacts.

Well, they haven't looked at how much water is going to be needed for the industry; and, also, the water that's already being taken by the industry for drilling in Pennsylvania.

That really needs to be assessed, as well as the cumulative impacts on wildlife.

Again, the DEC recognizes that there will be, direct, and indirect, cumulative impacts on wildlife resulting from habitat fragmentation. They list a number of best-management practices, but they don't make these practices mandatory for all drilling sites.

So, DEC's current draft document is not meeting that standard of full assessment of cumulative impacts.

I won't repeat what others have said, but we're also very concerned about the DEC's stated intention to issue permits before regulations, for the various reasons that Mr. Gallay just mentioned, and Mrs. Esposito and Mr. Moore, earlier.

As you know, New York is fortunate to have abundant water resources, with more than 60,000 miles of rivers and streams, and 7,000 lakes and ponds. These resources are not infinite, and

should not be treated as disposable.

New York must adopt stringent regulations that protect these streams from the impacts of gas development.

Now, obviously, the Water Resources law passed earlier this year, and signed by Governor Cuomo last week, is a step in the right direction. But, until regulations are developed under that law, the DEC is proposing an interim method for assessing water withdrawals, or for managing water withdrawals, related to gas drilling.

And in that interim amount, that, they are not actually considering existing withdrawals, or impairments. So, there's really no way to know whether or not the withdrawal that they're proposing to allow is actually going to impact water resources.

That needs to be looked at closely, and the regulations under this new water-resources law must be passed before drilling permits are issued for water withdrawals.

Further, to protect streams and aquatic life, there must be adequate setbacks.

Right now, the DEC is proposing a 150-foot setback from an intermittent or a perennial stream.

And that protective measure can actually just be waived, as long as the site-specific environmental review is conducted.

So that, again, is not adequate.

And the State is the steward of our public resources, including our fish and wildlife. And before drilling is permitted, New York should identify the special places that have high ecological, social, and cultural value within the state. And, you must establish special protections or prohibit drilling in those areas to ensure that future generations can enjoy New York's natural assets.

I just want to provide with you a couple of examples of impacts to wildlife, where -- that have occurred, actually, in other states where drilling is intense.

In June of 2010, Pennsylvania quarantined cattle exposed to wastewater that leaked from a containment pond, which, I think, actually killed about 1,200 square feet of grass on a farm.

And the State agricultural officials said that they acted to prevent the contaminated beef from entering the food chain, since the water contained heavy-metal strontium; which is, of

course, especially toxic to children, and one that lingers long in an animal's system.

Now, the cows were drawn to the wastewater because of the high salt content.

Well, there have also been reports of deer drinking from wastewater ponds; again, likely attracted due to the high wastewater -- I'm sorry, due to the high salt content.

But, since deer and wildlife do not know boundaries, and they are not regulated by the State, this is of particular concern to sportsmen and -women: the wildlife who may be consuming the wastewater out there.

In parts of the Inner Mountain West, there have been studies that have shown a 60 percent decline in the mule deer population over a very short 10-year period, since oil and gas development really came underway.

So, there are going to be long-term impacts.

We know that there are -- that the chemicals used in hydraulic fracturing and -- with unconventional gas development, do impact aquatic life.

And I can provide you with studies to demonstrate that.

But, I just want to say that -- to wrap up, by saying, that: Many of the impacts to fish and wildlife will not be seen tomorrow; rather, these effects will be felt in the long term.

And that is why it is critical that the State really, truly, conduct a cumulative assessment of impacts to these wild-life resources, and water resources, to determine what level of extra protections are needed.

I also just want to point out one other glitch with the State's draft environmental assessment.

At this point, their executive summary and their revised preliminary draft statement, state two different levels of protection for, specifically, public lands.

In the executive summary, the DEC has said that reforest station areas will be off-limits to surface drilling.

In their revised draft, they state that, forest areas will be off-limits to surface drilling.

There is a very fine distinction there, but, if state forests are open to surface drilling, if any part of the state forests are open to surface drilling, that could include wild-life management

areas. And those are the areas that the state has set aside for the public, for recreation, camping, fishing, hunting, et cetera.

So, it's very important that conflict be resolved, and that all state forests be off-limits to surface drilling.

And, I just want to close by saying, that: We, to you and sportsmen and -women, support the 180-day comment time frame.

And, we have called on the Governor, and DEC, to commit to 180 days, as well as public hearings across the state.

SENATOR STEWART-COUSINS: Thank you.

SENATOR KRUEGER: Thank you.

SENATOR BALL: And, Bruce Ferguson, from Catskill Citizens for Safe Energy, will finish us off.

BRUCE FERGUSON: Thank you, Senator, for having us here.

And, thank you Senator Cousins [sic] and Senator Krueger for attending.

I work with an all-volunteer grassroots organization. We're centered in the Delaware Basin in the Catskill region.

And, if the DEC and Governor Cuomo get their

way, I will soon be a second-class citizen.

I say that because, the plan for drilling in New York State calls for certain areas being off-limits for drilling:

Municipal water supplies, it's too dangerous to frack.

Principal aquifers, even if they're not used by large population centers, too dangerous to frack.

The rest of us, we are fair game.

This is not a decision based on science, it's not a decision based on public health concerns. It's a political decision based on where political power lies.

And, it's un-American, and unacceptable.

I have been working on this issue for 3 1/2 years. And since day one, I have been told by the industry side that, we, collectively, those of us concerned about this issue, are holding up the process.

That's not true.

The industry has been holding up the process by interfering with peer-reviewed scientific studies, as they did with the 2004 DEC study on drinking watering -- on EPA's study of drinking-water safety. They contaminated that study

with political interference.

And now we're waiting for 2012, for a study that could have been completed in 2004.

Activists did not do that.

The industry did that. They are the ones holding up progress here.

They have a wealth of information, they're not sharing with you, or with the general public. They're holding up this process by not disclosing what they know, so rational decisions can be made.

They are holding up the process by stonewalling what comes through very commonsense regulations, like the Frack Act in Congress, which would just simply require chemical disclosure of what's used in fracking fluid, and require that fracking be subject to the Safe Drinking Water Act, like every other industrial activity in America.

They are stonewalling on that. They are the ones holding up the time table here, not us. Lay it all on industry where it belongs.

So, why the rush?

The rush is really not to have to do with getting the gas out of the ground. As many other people pointed out, the gas has been there tens of millions of years. It will be there tomorrow.

The real rush is, get the wells in the ground before we find out what's going on.

Everywhere in the world where they've done hydraulic fracturing, they've gotten the wells in the ground without the public really being educated before they get there.

We're in a different station in New York. We're the first place in the world that's had an opportunity to study the process before drilling gets underway. And this is an enormous advantage.

I know Governor Paterson has gotten a lot of abuse for many reasons, but, to his everlasting credit, he, in 2008, ordered a hold on high-volume fracking until it could be studied.

And here we are, three years later, and it still has not gotten underway. And, we've learned a tremendous amount in that time.

And we've learned, really, that it, cannot go forward, should not go forward.

If it does go forward, we're going to see hundred of billions of gallons of toxic fluid injected into the ground in New York State. Most of that will remain underground forever.

There is absolutely no reason to think that fluid will stay where you put it.

Once it's injected in the ground, you cannot regulate it. It will do what it wants to do. And it will probably, according to the expert testimony we have so far, contaminate drinking-water supplies; maybe not today, maybe not tomorrow, maybe not this year. Maybe, in 10 years, 20 years, 30 years.

This could be an environmental nightmare for your grandchildren, if not for you.

Here's a few figures that I think are worth keeping in mind, why we're in the situation we're in: 41 billion, and 141 million.

"Christian Science Monitor" recently estimated that $41 billion is what the fossil-fuel industry gets in taxpayer subsidies.

We're giving them, all of us, $41 billion a year. They turn around, and spend $141 million of that fungible money, buying legislation.

That's what they spend each year lobbying: $141 million, out of the 41 billion we give them.

They spend hundreds of millions more on advertising.

You can listen to any news program on NPR.

You'd think, the progressive NPR?

Every news program on NPR is now, "Brought to you by the natural-gas industry."

"New Yorker Magazine," full-page color ads.

They're throwing money at this public-relations campaign, and it's our money they're throwing back in our face.

I'm going to touch on one of the three big lies of the natural-gas industry.

One that's been talked about quite a bit is the economic benefit, as Dr. Barth, and others, have testified.

That's a charade. We know it will destroy local economies.

It will destroy the economy where I live, which is based on tourism and farming. It will be wiped out.

I'm -- we have, 24 percent, second homes in my county. The real estate market will die if fracking comes our way.

The other lie is, that it's a clean fuel.

It's clean only if you consider the consumption aspect of it.

The minute you start considering the filthy extraction process, and the thousands of diesel trucks for each and every gas well, the leaks and transmission lines, the volatile organic compounds released into the air at the well site, it's

actually dirtier than coal -- dirtier than dirty coal.

And that's according to a Cornell peer-reviewed study by Dr. Howarth, and others.

Now, the third lie, and I'm going to read this -- this is the one part of my testimony I will read, and I'll be brief.

"Is this have anything to do with energy independence?"

And the answer is, "Absolutely not.

"Shale-gas formations are ubiquitous. The United States has abundant shale-gas reserves; so does Canada, South America, Europe, North Africa, South Africa, Australia, India, China, and Pakistan.

"But, while many countries have shale gas, not all of them are willing to extract it.

"The French legislature recently voted to ban shale-gas extraction.

"Britain halted fracking after it was suspected of causing quakes.

"Quebec is also suspending fracking operations.

"And, South Africa has imposed a moratorium.

"The entire European Union may adopt a prohibition on hydraulic fracturing if it heeds the

advice of a recent report commissioned by the European Parliament" --

[Off-the-record comment whispered to the speaker.]

BRUCE FERGUSON: Okay. I'll just finish this one section here.

-- it -- "that said, that, 'A time when sustainability is the key to the future operations, it can be questioned whether the injection of toxic chemicals in the underground should be allowed or whether it should be banned, as such a practice would restrict or exclude any later use of the contaminated soil."

And let me -- just one more line.

"So, while these countries are banning fracking, we have sold our shale, here in the United States, to Britain, France, both of which have moratoriums or bans on it; Canada, which has a partial ban in Quebec; Norway, which does not allow fracking; Japan, India, and China."

We are becoming the third world. We are becoming the sacrificial energy-extraction zone for other countries.

Thank you.

SENATOR BALL: Thank you.

[Applause.]

SENATOR BALL: Okay, we'll wrap up.

Would you like to...

SENATOR KRUEGER: Well, I just want to thank Senator Ball for sponsoring this hearing, and everyone who came to testify today.

I found it so educational. It gave me so much more ammunition about more things that I need to look into as a senator; more laws that I think the State needs to pass, to protect our citizens from the risks that we're learning about.

I also -- I'm guilty of, I read a computer at the same time -- and, I've learned that the industry is busy watching us, plotting; how they try to say that this was an illegitimate hearing. And, that, they didn't attend because they knew where we were all going.

But wouldn't it have been refreshing for them to be prepared to come and testify, rather than spending their time putting out press releases about why none of this is relevant?

So, I think we've seen how important it is for all of us to be here today.

SENATOR BALL: Senator.

SENATOR STEWART-COUSINS: Yes, again, I do

want to thank you for having this hearing.

And, thank all of you for testifying.

I heard things that I didn't expect to hear.

I watched as people testified.

And, people who you couldn't see, you, who testify, behind you, really being brought, frankly, to tears, because of the level of concern, and the unanswered question.

Now, we're New Yorkers; we're smart, we're savvy, we're sophisticated.

And, we have to be all of those things because, clearly, there is a need, if the industry won't come to speak to us, at least for us to learn from what has happened in our neighbor's backyards and front yards and in their homes.

So, I don't doubt that there will be a push-back. And, I only would have wished that that push-back occurred here.

That, even those of us who came with one set of facts, as we understood it, would at least be in a position, because we heard the other side, to say: Well, you know what? "Maybe." Maybe I was wrong. Or, maybe this does deserve another look in another way.

I was open for that.

And, unfortunately, that, has not happened.

So, again, I thank you. Thank everyone.

And I'll tell you -- well, I guess Adrienne left, because, you know, it's -- we've been through a lot of hearings. I can't imagine all of the hours that we've logged in hearings over the years.

But, when you have a hearing like this, that is just so important, to, not only our present, but our future, in so many ways, there's no way that you could walk away without hearing what every single person had to say.

And, it was not just about emotions. You came with facts, you came with data.

You came with other places where we could go: peer-reviewed information, educational-institution information.

This was not about emotion, and, "Just not in my backyard."

This is something that if we don't pay attention to, shame on us.

SENATOR BALL: Thank you so much.

[Applause.]

SENATOR BALL: I want to thank both of you for taking the time, and -- out of your busy schedules, because I know how finite time is.

And, I just want to say everybody who came here, including the family that came ten hours away, and others that traveled five hours to come here: God bless you, and thank you so much.

As far as the industry itself, I think you missed a great opportunity to let your voice be heard, to let your side be heard.

This is a very tough issue. It's a complicated issue.

I can tell you that the pain that I've seen in the eyes here across table, that I've seen either at this hearing, or the pain that I experienced firsthand in communicating with families and communicating with farmers in Pennsylvania, it will be over my dead body before I allow that to happen here in the state of New York.

And it's the --

[Applause.]

SENATOR BALL: It's the industry that is on the door of New York State that benefits, and is on the precipice of benefiting greatly in the state.

To the industry: Shame on you for not being here.

To the industry, to you, who, really, is on the precipice of profiting a great deal: It's your

moral responsibility to engage in the conversation.

And, we're not going to away. We're going to continue to ask these questions.

And I know that I don't stand alone.

So, I thank each and every one of you for being here today.

[Whereupon, the New York State Senate's public hearing concluded at approximately 1:46 p.m.]