

BEFORE THE DELAWARE RIVER BASIN COMMISSION

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IN RE: DRBC DRAFT REGULATIONS REGARDING  
HYDRAULIC FRACTURING ACTIVITIES  
IN THE DELAWARE RIVER BASIN

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BEFORE: STEVE TAMBINI, HEARING OFFICER  
EXECUTIVE DIRECTOR, DELAWARE RIVER BASIN COMMISSION

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HEARING: TUESDAY, MARCH 6, 2018

1:30 P.M.

TELEPHONIC PUBLIC HEARING

Steve Tambini:

Okay, good afternoon everybody. My name is Steve Tambini and on behalf of the Delaware River Basin Commission. Welcome to today's public hearing. I am the executive director for DRBC and I will also be serving as the hearing officer for this proceeding today. This is public hearing number six and it's the last of the DRBC public hearings. Concerning draft rules that were proposed by the Delaware River Basin Commission to amend the commission's administrative manual and special regulations regarding hydraulic fracturing activities and to provide for additional clarifying amendments to the commission's rules of practice and procedures.

Now, before we get started, let me mention that this is the first time we are conducting a public hearing over the telephone. We have developed plans so hopefully it runs smoothly and efficiently. However, from time to time, we may need to pause to speak with the operator. Her name is Priscilla. To be sure that we are on track. If that happens, please bear with us and we will get back on track as soon as we can. I am going to spend about five or six minutes going through some materials before we start with the public hearing portion. Then we will get right to those who have signed up in advance to speak today.

A notice for the proposed rule making along with the text of the draft rules and supporting documents were posted on the DRBC website on November 30, 2017 and have been published in the federal register and the Basin State registers. Information about the draft rules and the public process has been and will remain available on the commission's website throughout the process. As set forth in the Notice of Proposed Rulemaking by Resolution of the Minutes on September 13, 2017. The DRBC commissioners directed the executive director to prepare and publish for public comment a revised set of draft regulations to include A) prohibitions relating to the production of natural gas utilizing horizontal drilling and hydraulic fracturing within the basin; B) provisions for insuring the safe and protective storage, treatment, disposal, and/or discharge of wastewater within the basin associated with horizontal drilling and hydraulic fracturing for the purpose or excuse me for the production of natural gas where permitted; and C) regulation of the interbasin transfer of water and wastewater for purposes of natural gas development where permitted.

If adopted, the draft rules would add to the commission's regulations a section on hydraulic fracturing in shale and other rock formations. This section would prohibit hydraulic, high volume hydraulic fracturing in such formations within the Delaware River Basin, require review under the Delaware River Basin compact of any—the exportation from the basin of surface water, ground water, treated wastewater, or mine drainage water at any rate or volume for us in hydraulic fracturing of hydrocarbon bearing rock formations outside of the basin, or the importation into the basin and treatment and discharge within the basin of wastewater from hydraulically fractured oil and gas wells. It would also establish standards for the treatment and disposal of wastewater from hydraulically fractured oil and gas wells.

The commission also proposes to amend its administrative manual, rules of practice and procedure by the addition of project review classifications and fees related to the management of produced water from hydraulic fracturing of hydrocarbon bearing rock formation. Minor amendments to the product review classification unrelated to hydraulic fracturing are also proposed. Copies of the proposed rules and a lot more information can be found on the DRBC website. I would encourage you to check our website for more detail

Now, let me talk about the process for this hearing. As I said earlier, this is one of six public hearings on this matter in addition to accepting oral comments at this public hearing, the commission is also accepting written comments from 5:00 p.m. on Friday March 30, 2018. Written comments will receive the same consideration as oral comments. Written comments can be submitted online using a link that can be found on the DRBC website. If you do not have access to a computer or the internet and would like to submit written comments, you may request an exception by writing to the DRBC at the following address and I will read it twice. DRBC, Attention Commission Secretary, P.O. Box 7360, West Trenton, New Jersey, 08628. Once again DRBC, Attention Commission Secretary, P.O. Box 7360, West Trenton, New Jersey, 08628. Today's proceeding is being recorded and a transcript is being created that will become that will become part of the decision-making record for purposes of the rules. The electronic recording is being made to enable the DRBC commissioners to hear your comments even though they could not attend today's hearing and to allow DRBC staff in consultation with the commissioners to prepare a detailed comment and response document that addresses the issues and concerns that you raise.

Let me describe today's hearing procedures because they are a little bit unique. First, the commission thanks all of you who registered in advance to speak. In doing so, you help the staff prepare for today's proceeding. Typically, the hearing officer, me or another hearing officer would call the names. However, today during this hearing, the operator will call your name and we will be following along. The order which she will call the speakers as time permits will be as follows. First for those who have registered in advance to speak and who have not already spoken at another hearing, those will go first. Then anyone else online who wishes to speak whether or not they have signed up to do so in advance will have an opportunity. You will only have an opportunity to speak once. Similar to the other hearings, the time limit per speaker for this hearing will be three minutes. This is to be fair to the speakers at all the other hearings who were limited to three minutes as well.

Now, at a typical public hearing, you have attended one of our public hearings in an auditorium or another venue, we show up and speak directly to the hearing office, you might see a visible countdown clock to guide you as to where you stand in terms of what you want to say relative to the time limit. Typically, there is also a buzzer that goes off at the three minutes. Well, for

this hearing, we don't have the benefit of the clock or the buzzer, so we are going to have a little bit different way of doing this. If you exceed the permitted three-minute time, I have asked the operator to interrupt you right at the three-minute mark, even as you are speaking. So I apologize in advance for her doing that, but I have asked her to do it. You should pause and understand that you will have about ten to 15 more seconds to complete your thought before the operator will turn off your microphone without any additional warning or you will be muted after about 3:15. So therefore, on behalf of the operator, again, I apologize in advance for the interruption. However, these are the rules and we have asked them to administer it this way.

If you can't finish oral comments, if you do get interrupted, please know that you can follow up your comments in writing if you wish. As I mentioned earlier, written comments will receive the same consideration as oral comments. Now, any speaker whose sole purpose is to be rude or disruptive will also be interrupted and will not be allowed to continue. That will be at the hearing officer and my discretion.

Speakers will be asked to restate their name and optionally to provide an affiliation if they would like. As part of your comment, if you ask a question, please don't expect a response during the hearing. Questions and comments will be addressed as part of the comment response document that will be prepared by the commission after the comment period is closed. This hearing will end at the scheduled time and that is 3:30, possibly sooner if we don't have enough people speaking, but we will see how that goes.

So, what's next? After all the public comments are received, the DRBC staff and the commissioners will develop a comment and response document that addresses each of the commenter's concerns. The commissioners will consider changes to the proposed rules and respond to the comments received. We will hold a vote to either approve the rules as proposed, approve the rules with changes, or reject the proposed rules. The decision makers on this and all other rule makings by the commissions are the commissioners themselves, who may ask their appointed alternatives. The commissioners are the governors of the four basin states: Delaware, New Jersey, New York, and Pennsylvania. On behalf of the federal government, the division commander of the North Atlantic Division of the U.S. Army Corps of Engineers. That is all I have for my prepared comments. I am going to turn the proceedings to Priscilla and she is going to read the names. Like I said, there may be an opportunity from time to time that I may jump in if I need to, but for the most part, I think if we have an orderly hearing Priscilla will just read down the names. Then when we get through the names who had signed up in advanced, we will open it up to others. Priscilla, are you ready?

Operator: I am ready. We will start with Brian Maguire. You have three minutes.

Brian Maguire: Can you hear me?

Operator: Yes, we can hear you.

Brian Maguire: Thank you. My name is Brian Maguire. I am, by way of identification, I am vice president of the Board Commissioners of Lower Marion Township, a suburb of Philly. I am in the River Basin of about 60,000 and I also the regional vice president from the southeast region of Trout Unlimited for the Pennsylvania Council. I am speaking as an individual, however, just to say that I strongly support the amendments being proposed to the special regulations as the commissioners know, I am sure, the Upper Delaware River Valley is an incredible resource. We have seen a number of places in the area including the George Washington, Jefferson, Monongahela National Forest, Savage River, and Casco Park, all put limits on energy development and given the sensitivity and the value of the Upper Delaware Basin in terms of its fishing resources and other outdoor activities, tourism and such, we think it's a very smart thing to go ahead and go forward with these more stringent regulations. We don't believe that there, in fact, is a whole lot of energy to be had there. So you know, going ahead and instituting this rule and making sure we don't have heavy fracking, hydraulic fracking going on in the area is very important to me personally and in terms of my township that I represent, the water quality, our drinking water comes out of the Delaware River. That's another reason beyond the immediate impact on the upper section of the Delaware. But thank you very much for giving me this opportunity.

Operator: Thank you. We will move now to Dr. Barnaby Rue. You have three minutes.

Barnaby Rue: Thank you. Frack wastewater is not brine and it's not flowback. It is actually hazardous materials that no one should allow in their backyard ever. Benzene, toluene, xylene, bohrium, boron, strontium, methane, 293 carcinogens and haz mats, all 300 chemicals have been read aloud in Congress for the public record. Your water engineers needed Geiger counter to buzz loudly each time a truck shows up to dump its Trojan Horse of poison cocktail. You need to test for the benzenes before a drop of water is dumped on farmer's fields and in our streams, I might add, and gifted to your wastewater facility because benzene causes brain damage and debilitating sickness even in diluted small quantities, as were Columbia University's study read the label, the Halliburton loophole in Act 13 and court gag orders are all meant to pretend this hazardous waste won't kill you. Tell that to the dying.

You cannot treat nor dispose haz mat safely in any way whatsoever. Who was even testing for 300 chemicals, nor cleaning them, nor waiting 430 years for the strontium and bohrium half-life. That is why they want to send haz mat fracking stuff to the Delaware River because we haven't seen it before and we are not ready to take this hit like everyone else has now been warned and they are stopping it. They really need to move the frackers because it costs so much money. They are probably spending some money, somewhere to try and convince somebody to take it here.

It's a big mistake for us. We have to realize that the Delaware River Basin Commission could actually face ten years of lawsuits in about the next ten years as the primary target for having treated an untenable situation that cannot be fixed. The only way to fix fracking wastewater coming into our valley is to never let it come in. It cannot be cleaned. No one can do it. No one is testing for these, all of these chemicals. No one is cleaning them up. They call it brine so they can drop it at farmer fields. There are many streams and ponds in Central Pennsylvania that says, "no swimming" and I know why.

We have to realize that the fracking wastewater is probably a Trojan Horse and a smoke screen. Meaning the banning of fracking in the Lehigh Valley and allowing frack water to come into the valley is basically doing nothing for the valley. It is basically destroying the valley without fracking. If you bring in the frack water, we lose. Thank you very much.

Operator: Thank you. We will move next to Yuni Blake. Your line is open. You have three minutes.

Yuni Blake: Thank you. Good afternoon DRBC commissioners and staff. Thank you very much for this opportunity to provide my comments. My name is Yuni Blake and I am scientific advisor for American Petroleum Institute. My background is in toxicology and public health. In this field, risk assess typically assess health risks in light of related studies in certain communities. They are expected to provide clear and concise answers to complex questions about health based on existing scientific evidence. But as the scientific community knows, it is really hard how they behave, however there are strategies such as word of evidence assessment that is used to evaluate evidence. Taking account various fountains of information and data. Facts about health as we know is not a popularity contest. Where credibility is given to sheer numbers of voices of papers from one point of view or reference. But instead it's a process for a conclusion to determined by the weight of available evidence, evidence that is collected and organized in a systematic and transparent way. Unfortunately, the commission has short circuited the process and gone straight to relying on one politically driven reference \_\_\_\_\_ [00:15:28] as presented in the SGIS. We implore the commission to fiercely consider its reliance on \_\_\_\_\_ [00:15:37] SGIS conclusions as an approach to ban process for reviewing health does not follow weight of evidence approach. It was not transparent. It was not systematic. It did not consider all of the lines of evidence and it did not assess how energy standards and practices along with how the DRBC's proposed regulations would then reduce and then limit exposures. New York's conclusion relied on a precautionary approach in light of uncertainty.

While on the surface this approach appears to be protective, some leading scientists disagree. Invoking this principle in this manner without any avenue

of recourse is not sound policy. It acts as a barrier and limits technology advancement.

In closing, the industry continues to invest in technological advances and will prevent and eliminate discharges to the basin. Technology will be used during and management of water resources that will be in line with what the commission's goals are for the basin. That is, as we understand it, to conserve, protect, maintain, and improve the quality of the water basin. Again, thank you very much for this opportunity.

Operator: Thank you. We will go next to Joanne, sorry. We will go next to Joanne Kilgour. Your line is open. You have three minutes.

Joanne Kilgour: Good afternoon, thank you. My name is Joanne Kilgour and I am the director of the Sierra Club Pennsylvania Chapter, representing 3,300 members and more than 120,000 supporters across our commonwealth. First, I would like to join the other commenters in thanking the commissioners and staff of the DRBC for the opportunity to provide feedback on these draft regulations within the watershed.

On behalf of the Sierra Club members and supporters in Pennsylvania, I am joining this hearing this afternoon to testify in support of a complete ban on fracking in the Delaware River watershed including a ban on the storage, processing, and discharge of wastewater from fracking in the basin, and the export of water from the watershed for harmful fracking elsewhere in the region.

Communities across Pennsylvania have been dealing with the negative impacts from fracking and fracked gas infrastructure for years. While no community should have been subjected to these impacts in the first place, what we have learned from the damage caused by these activities serves as substantiation to justify a complete ban on fracking and fracking related activities in the Delaware watershed.

Examples of these impacts include contamination of water supplies, negative water quality impacts to streams, uncertainties surrounding exposure to chemicals in fracking fluid and wastewater, the composition of which is often not disclosed to the public, and the potential for radioactivity in waste disposal.

With respect to water supply contamination, there are clear indicators that fracking pollutes water even when the operations are regulated. If allowed in the Delaware River watershed, millions of people's water would be at risk. The Pennsylvania Department of Environmental Protection has acknowledged more than 300 cases of private water well contamination caused by oil and gas operations in the commonwealth and over 4,400 water complaints related to oil and gas have been filed by the public.

Between 2004 and 2016, the EPA identified nearly 9,500 public complaints about environmental problems in Shell gas drilling areas. These impacts, again, while they should have never been experienced anywhere should be prevented from being experienced within the watershed.

In addition to private water supplies, fracking related operations have also resulted in changes to water quality in streams. For instance, a publication by the proceedings of the National Academy of Sciences found streams adjacent to gas wells are negatively impacted by run off and sedimentation, harming fish and wildlife, and causing streams to be eroded and destabilized. Beyond impacts from erosion, sedimentation, concerns remain regarding exposure to unknown chemicals or unknown quantities of chemicals in frack fluid and wastewater from fracking operations.

Drilling companies have withheld fracking chemical identities from the public as confidential--

Operator: It has been three minutes. Please conclude remarks.

Joanne Kilgour: Thank you. Thank you again for this opportunity to comment in support of a complete ban on fracking in the watershed.

Operator: Thank you. We will go next to Mark Leben. You have three minutes. Your line is open.

Mark Leben: All right, thank you. I agree with the previous speaker. The fracking industry is not concerned with the welfare of the environment. As a chemical engineer, I understand why because it saves them a lot of money. Anything that they put back, any treatment they do to the water after fracking is minimal and is not in the best interest of anyway that is going to be drinking the water or is being put on the farmlands.

What I do not understand is in the age of the Twenty-First Century, that we need to be continually looking at fossil fuel as our energy sources. We have much better sources that do not pollute. There is no real need for fracking, any more fracking. I am extremely concerned that the damage to our watershed and to the water that we use, that millions of people use. I would appreciate it if the commission would please ban all fracking and not allow the use of water and that they controlled to be used for fracking operations. I appreciate the opportunity to make my comments known and I thank you and please ban fracking. Thank you very much.

Operator: Thank you. We will go now to Wendy Robinson. Your line is open. You have three minutes.

Wendy Robinson: Thank you. Thanks for offering a creative way to testify for those of us unable to travel to the rather inconvenient locations provided for in person testimony.



I assume you are all quite familiar with the history of the Delaware River and how polluted it was at the time of the American Revolution. You may know that even after the Delaware River Basin Commission's goals and objectives were established, its work was complicated by multi-year drought between 1961 and 1966 that brought the driest spell recorded since 1895.

When John F. Kennedy created the commission to protect and manage the river's resources, he could not have contemplated the fossil fuel extracted method we know as fracking. So, it's only right and laudable that you are proposing to ban fracking in the basin. But neither would Kennedy have ever condoned strong, I'm sorry, storing or dumping chemical laden radioactivity, radioactive water into the river or draining its precious contents to support such a polluting process. Why would you threaten centuries of progress this way?

The 1960's drought demonstrates that even with the best of intentions and planning, you cannot plan the weather. So, the prospect of withdrawing millions of gallons of clean, fresh water which you yourselves recognize is in incredibly short supply is nothing but irresponsible. You don't know when we could be in the beginning throes of a drought that lasts even longer than the one in the Sixties. A slight shift in the El Nino running pattern and we might experience a dearth of moisture California suffered through so recently. Then you will have sacrificed a dwindling resource necessary for survival. We can live without fracking. We cannot live without water.

Even if it is abundant at any given time, this is water that can never again be returned to the water cycle in its original form. Once replete with hundreds of chemicals, in many cases unidentified, it can no longer be considered the fresh, new water it once was. If it's no longer that fresh, clean water, what is it then? A toxic chemicals, chemical compounds, and radioactivity. That there should be any consideration of allowing that toxic soup to be dumped into the river is even more irresponsible than the water withdrawals. When you can't even be certain of what chemicals to neutralize it because they are trade secrets, how can a treatment facility be sure that it would be discharging a nonlethal product? Even more concerning, there is no absolutely no evidence that radioactivity can be eliminated from fracking wastewater. So, what then? Are we playing Russian roulette with the lives of the people who depend on the river for their drinking water? Are you gambling on how much is too much radium? Does the water include a calculation based on a person's size? Will you be able to determine if a child or an infant's tiny body can withstand the cancer caused by the radioactive water? Could you sleep at night knowing that you might be responsible for a decision that could cost a child his or her life? Thank you.

Operator:

Thank you. We will move now to Robert Kraus. Your line is open. Robert Kraus, your line is open. Please check your mute function.

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Robert Kraus: Hello.

Operator: Hello, we can hear you now.

Robert Kraus, once again, check the mute function on your phone.

Robert Kraus: Hello.

Operator: You line is open.

Robert Kraus: Okay, I'm sorry. My name is Robert Kraus. I am resident in the basin. The industry is promoting this effort to regulators as safe. Let me read the text from a document sent to potential investors in one of these natural resource companies.

In May 2006, Range Resources Corporation at the time one of the biggest hydro fracking companies in Pennsylvania provided the SEC with a prospective. In a surprisingly forthright document, Range Resources explained to the principle investors the risk of hydro fracking. "Our business is subject to operating hazards and environmental regulations that could result in substantial losses or liability. Oil and natural gas operations are subject to many risks including well blow outs; cratering; explosions; uncontrollable flows of oil, natural gas, or well fluids; fires; formations with abnormal pressures; pipeline ruptures or spills; pollution; release of toxic natural gas and other environmental hazards and risks. If any of these hazards occur, we could sustain substantial losses as a result of injury or loss of life, severe damage to or destruction of property, natural resources, and equipment, pollution, or other environmental damage, clean up responsibilities, regulatory investigations and penalties, or suspensions of operations."

So, which is it? Do we believe what the industry is telling regulators or what the industry is telling investors? Or do we believe them at all? Thank you for your, for this time for allowing me to submit my comment.

Operator: Thank you. We will go next to Sharon Furlong. Sharon, your line is open. You have three minutes.

Sharon Furlong: Hi, my name is Sharon Furlong, Bucks County Environmental Action Group, and Low Bucks Country Sierra Club Group where our membership is between the two groups, approximately 3,000 to 4,000 people.

I have spoken at these meetings before, but since I have spoken at least nine more articles have come out that represent difficulties in this industry from A to Z, one of which being methane, which is part of the industry, not part of this particular aspect. The other is waste sewage treatment difficulties, both downstream public sewage treatment plants. That came out in the *Philadelphia Enquire* in the last four weeks, along with other kinds of

industry related problems including storage problems that occur after flooding conditions.

In addition, in one of my other speeches, I talked about the glory and history of the DRBC, which as it began was a pioneer in the protection of resources and the protection of the Delaware River and the communities, recreational, and the creatures within it, from the beginning of its vaunted history until, I guess, now. It becomes important for the governors to be taking a look at the history and wondering why that is about to be, possibly, thrown down the tubes in a scheme that is going to involve a watershed that is incredibly wealthy, filled with millions and millions and millions of people who are dependent on the water, as well as flora and fauna, and allow that to be put into some sort of crapshoot as to whether an industry that is already running into great amount of trouble in this kind of procedure would allow it to invest in making us this area, and all four states, a garbage area for already contaminated water and to pull pristine water out.

We have just come out of a drought. It is not just California. Our drought in the Delaware River Basin is just over for approximately two years and in some areas in five different sections of the basin, there are still drought conditions. That is after everything happened this past year. Why is this on the table for private industry? Why is this being discussed at all? Thank you very much.

Operator: Thank you. We will go next to James Rapp. Oh, one moment. Your line is open. You have three minutes.

James Rapp: Thank you. I wish to express my sincere thank you for the opportunity to address the DRBC decision makers on this new forum. But firstly, I want to state this forum is not as effective as in person testimony for me and I would be opposed to it becoming a regular way of allowing public input.

I am strongly opposed to amending the administrative manual rules of practice and procedure with respect to hydro fracking and the receiving of waste and the drafting of water from the basin. They are contrary in every way to the purpose of the commission. Since 1961, the DRBC has stood independently of any corporate intrusion as many attempts to amend the rules in such a way to render the commission useless in a primary function.

If 18CFR40135B is adopted, the historical values to the American people will be altered from one of pride in citizenship to disgrace in democracy, from stewardship for future generations to steward plans for fish mutations.

I took a journey to see the impact of the industry just this Saturday and was appalled by the huge destruction of the environment overall. It was certainly not the small convenient pipes of a necessary new power source that would be hardly noticeable. As I stated, it was rather a heavy industrial, ugly, and devaluing to the quality of life of residence surrounding this infrastructure.

We bought coffee at McDonald's against my better judgement and three sips in both my wife and I tasted industrial chemicals. We, of course, we didn't finish them, and my wife refused to dump them down our drain back in New Jersey. She said she is afraid to have it in our septic as it might get into our well system.

It is wrong to allow this heavy industry practice to be done within the basin. The rule changes to collect these from any industry are, an industry ripe with a history of global environmental degradation is only an invitation for corruption at the highest magnitude.

Stand up for Americans and vote no rule changes and to continue the great stewardship we have known and enact a real comprehensive ban on all fracking related activity. I welcome the DRBC back from the Dark Side as we move forward for the betterment of Mother Earth and our mothers' and children's health alike, and not the sole pace of consumption of undisclosed and disallowed for discharge into waterways prior to the industry's unjust and unconstitutional exemptions. The basin's resources belong to the American people and are not to be exploited by international corporations to exploit for their continuation of this unnecessary practice. We need to move to clean energy now. We need to protect the areas that are presently unfracked because the ones that are fracked in my opinion have already been sacrificed and diseases and are suffering is --

Operator: You are at three minutes. Please conclude your statement.

James Rapp: Thank you. Thank you DRBC for this opportunity. Let's ban fracking comprehensively in the basin. Thank you very much.

Steve Tambini: Okay, this is Steve Tambini again with DRBC. We have gone through the list of people who have signed up in advance. Actually, there are several people who signed up and have not, don't appear to be on the call at this point. So, we will keep an eye out for those people, but at the same time, we will transition to opening up the hearing to anyone else who would like to make a comment. On this particular part, our operator will tell you how you can do that in a second, but what I would ask is that when you start your comment, if you could start by spelling your last name for the record, those who signed up in advance we do have a pretty good record of your names for the transcripts, but if you could start out by spelling your last name, that would really be appreciated. I am going to turn it over to the operator and she will tell you how, if you are interested you can join the call.

Operator: And at this time, if you would like to make a statement, please press the star and one on your touch tone phone. Once again, if you would like to make a statement today please press the star and one on your touch tone phone.

We will take our first question or our first statement, sorry, from Joan Farb. Joan your line is open. Please spell your last name for the record. You have three minutes.

Joan Farb: Okay, my last name is spelled F-A-R-B, as in boy. I am a member—thank you for the opportunity to speak. It's really off the cuff because I really didn't prepare anything, but I will give a detailed comment, a written comment section. I am really against any fracking activities in Delaware River Basin because of the possibility of the pollution of the water for 17 million people. There are many studies available showing that the chemicals that are released from the fracking process cannot be \_\_\_\_\_ [00:36:17] I really think the commission should realize they have a really important responsibility to keep this water pristine. And also, be aware of our constitution article one, section 27, that we are entitled to clean air and water for this generation and future generations and it's their legislative responsibility to assure this situation. Thank you again for this opportunity to speak and I will give more detailed written comment in regard to this. Thank you.

Operator: Once again if you would like to make a statement today, please press star and one.

We will take our next statement from Tom Shepstone. Tom, please spell your last name for the record. You have three minutes.

Tom Shepstone: S-H-E-P-S-T-O-N-E. And I previously commented, and I just want to add to my comments that this ban relies heavily upon the designation of special protection waters in the Upper Basin. In fact, those special protection waters aren't special at all. They are nothing but the same classification that Pennsylvania already has for high quality streams and exceptional value streams. In fact, fracking, hydraulic fracturing is being done on exceptional value, in exceptional value watersheds in the Susquehanna River Basin Commission with, as the SRBC reports, no discernible impact on the quality of the water resources as a result of natural gas development, end of quote. The fact that that statement has been ignored and the fact that that data has been ignored that we are doing drilling in the exceptional value watersheds of Pennsylvania in the SRBC regions shows that the intent here is to completely avoid and evade the truth that hydraulic fracturing has had no detrimental impact, no discernible impact on the quality of water resources and therefore there is no rationale for banning it in the Delaware River Basin. And in fact, the same commissions who serve on the SRBC serve on the DRBC. So, there is no excuse for ignoring the data and ignoring the facts of life, which are that this can be done safely and has been done safely.

What's going on here is the taking of land in the Upper Delaware quarter that would generate revenue for economic development, which is one of the purposes of the DRBC. And it's being done without the proper justification.

One of the other justifications is the landscape changes. It's notable that they rely in the justification on the possible removal of forest. Yet we have data in Wayne County showing we have added 45,000 acres of forest since 1959, which is far more than anything that would ever be removed by fracking or pipeline development or any of those things. So that's a false excuse.

We also hear the excuse that it's about the possible spill. Now, we are speculating about future harm. Well, if that's the case, then we can ban trains, too, because trains have derailed along the Upper Delaware for years and spilled things into the river. Are we going to ban everything that possibly has an accident? That is just simple foolishness and the implications of that are far reaching.

So as far as I am concerned, these hearings are a bit of a sham as well. I understand they are being properly conducted. I respect that. However, they are being conducted after the fact. The decision has already been made. The four governors of the states have already announced how they are going to vote, so these hearings have no purpose other than to put on a dog and pony show and I do resent that fact. Thank you for the opportunity.

Steve Tambini:

This is Steve Tambini again. As of now, we don't see anyone else who has indicated that they would like to speak. That being said, what I would like to do is suggest that it is 2:20 now. I think what we are going to do is leave the lines open until at least 2:40 for the next 20 minutes and keep an eye for anyone else who would like to either, I don't know what the right term is, raise their hand to speak or if someone comes on the line a little bit late. At 2:30, well let's put it this way, if somebody gets on the line in the meantime, we will open up the line, but if nobody gets on the line at 2:40, we will open up the line and we will make a decision as to what to do next. You are welcome to stay. You are welcome not to stay, but the hearing is not over yet. We are just taking a pause for about 20 minutes while we wait and see if anyone else joins the line. Operator, are you okay with that process?

Operator:

Yes.

Steve Tambini:

So, do you want to repeat again if somebody wants to speak at this point, they need to do what?

Operator:

Absolutely. If you would like to make a statement at this time, please press the star and one on your touch tone keypad.

Steve Tambini:

So, if you decide to leave, I will just say thank you for attending and thank you for commenting. I will make that statement again at the end, but if you are not here at 2:40 or beyond, thank you very much for your input. For now, we will go into recess and we will watch to see if anyone joins or if anyone indicates that they would like to speak. We will come on the phone again at 2:40. So thank you again.

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Steve Tambini: Okay, good afternoon. This is Steve Tambini again. I am the executive director of DRBC and I am the hearing officer for today's public hearing. We just had a recess for about 20 minutes. We are going to start the public hearing again. It looks like there is at least one person who would like to speak. So, I am going to turn it back over to the operator and she will call out the names and ask anyone else if they would like to join.

Operator: And as a reminder, if you would like to make a statement today, please press the star and one on your touchtone keypad. We will go to Tom Yarnick. Please spell your last name for the record. You have three minutes.

Tom Yarnick: Thank you. The last name is spelled Y-A-R-N-I-C-K. I retired from the oil and gas industry in 2017 after nearly 39 years serving in various regulatory and environmental positions within the industry and now I do remain engaged now as an environmental consultant. So, from that perspective and background, it is simply clear to me that hydraulic fracturing can and is being done safely from both an environmental and public health perspective throughout the region and across the country. I see no scientifically or technically supported basis for the proposed hydraulic fracturing prohibition within the Delaware River Basin.

However, I am not opposed to reasonable and protective regulations related to hydraulic fracturing such as are already in place throughout the rest of Pennsylvania. I would therefore encourage DRBC to replace the proposed ban \_\_\_\_\_ [00:43:58] with either a set of responsible regulations or reliant on host state regulations where those exist. Thank you.

Operator: Thank you. We will go next to Gokan Seker. Please spell your last name.

Gokan Seker: S-E-K-E-R.

Operator: You have three minutes.

Gokan Seker: Okay, thank you. As a concerned citizen I urge DRBC, the complete ban on fracking for the health reasons and for the complete science is out for the health reasons for the environmental reasons. So, I am urging them to basically ban the fracking until we have complete scientific outcomes out in public. Thank you very much. Have a great day.

Operator: Thank you. We will go next to Tracy Carluccio. Please spell your last name for the record. You have three minutes.

Tracy Carluccio: Carluccio, C-A-R-L-U-C-C-I-O. I wanted to set the record straight on some claims that were being made about a study that was done by the Susquehanna River Basin Commission about the impacts of fracking in the Susquehanna River watershed. There was analysis done of that report by the U.S. Geologic Survey. They came up with some very interesting conclusions looking at the report and what the SRBC had actually examined.

First of all, it's important to understand that the SRBC was mainly looking at quantity of water and whether or not they felt they had enough water in order to support the fracking that was going on throughout the Susquehanna River Basin. They did not do an expansive or even a very limited water quality analysis. USGS concluded that the existing surface water data in the Susquehanna data set that they used are not sufficient to detect whether the cumulative effects of shale gas development are resulting in water quality changes. The magnitude of the water quality change that could occur from contamination related to shale gas development is not known, but it would take at least three to six years in the basin to monthly monitor it to detect a 20 percent change in median specific conductants or total barium in the basin, which is what the USGS recommends be done in order to assess long term changes that occurring in the watershed as a result of fracking.

Only four of the 22 surface water monitoring sites in the basin done, looked at the SRBC with enough existing data for a water quality trend analysis for barium or specific conductants are located in the watersheds where fracking is occurring. So, they looked at areas where no fracking was going on and then used that data in order when they did their calculations. Very few of the 26-recommended surface water monitoring parameters that are available for those sites actually testing for what is in the frack wastewater or the frack fluids were used. So, they really did not look at things such as gross alpha, gross beta, radium 226, radium 228, uranium, benzene, toluene, ethyl benzene, xylene, or methane. These are very important contaminants related to fracking.

There is no systematic large scale, long term monitoring effort underway to assess the effects of shale gas development on ground water quality in the basin either. That was pointed out by the USGS and seen as an important missing element in what the Susquehanna River Basin should be doing if they want to do an analysis on the impacts of fracking.

The groundwater sampling sites with existing data that they had are rarely located within one mile of our fracking well. It was made very clear in the report from the USGS that in order for any analysis to be done that looks at the impacts of fracking--

Operator: It's been three minutes. Please conclude your comments.

Tracy Carluccio: I want to thank you very much for the opportunity to comment. We think that it's very important that the true elements of the SRB said is considered, not what people want it to have said. Thank you very much.

Operator: Thank you. We will go next to Faith Zerbe. Please spell your last name for the record. You have three minutes.



Faith Zerbe:

Hi, the last name is Zerbe, Z-E-R-B as in boy, E as in Edward. First, I just wanted to verify that I have at least five people who just commented that the operator is requesting a confirmation number when they call in. I think some of them have called back because I understand that they are, they are, one of them I heard just presented, but I did just want to verify that I think you are confusing people with a confirmation number. So, you might want to do an announcement. I think there are three people now that have just texted me that they are not getting through to comment.

I wanted to just verify something, too, related to what I was hearing on the science. I am a scientist. I do a lot of water quality monitoring as part of my profession. I spend a lot of time up in the Upper Delaware River Basin. We have about 300 volunteer monitors collect data in tributary streams that were initially threatened by hydraulic fracturing in the \_\_\_\_\_ [00:49:35] shale region, mostly \_\_\_\_\_ [00:49:36] County, some places in Pike as well, and of course over in New York, which of course has a ban now.

So, I support a complete ban on fracking and again that's because of the science. When folks like Mr. Shepstone talks about SRBC, what we have to remember is that that build out for the DEP is at about I believe ten percent of fracking. Anybody who does water science and stream science understands that there is a little bit of resiliency at the beginning of a development of a watershed. But if we have complete build out, there will be certainly harm. Those harms will go against special protection waters.

Down in the tidal area, we have issues of endangered species like the Atlantic sturgeon. So certainly, as others have presented, if we have shale gas and flowback water coming into the tidal section, we don't need it. You know we have cleaned up that part of the river, dissolved oxygen levels are much better than they were in the past. There is no need to bring in radioactive flowback wastewater.

We have over 685 peer reviewed papers that show the human health harms, air, and water health harm. So again, there is absolutely no reason why DRBC should not be instituting the precautionary principle.

The other thing I just wanted to point out with the DEP's and spokes for raising SRBC is that DEP has determined there are least 301 cases of private water well contamination caused by oil and gas operations in the commonwealth. They have had over 4,400 water complaints. This was between 2004 and 2016. So again, this idea that we can frack in the Susquehanna and everything is fine is completely falseness.

So, I urge DRBC to do the right thing, to have a strong and complete ban on fracking, flowback, wastewater import, and no fresh water exports to extract. Thanks very much for your time.

Operator: Thank you. As a reminder, if you would like to make a statement today, please press star and one on your touchtone keypad. We will go next to Corinne Mayland. Please spell your last name for the record. You have three minutes.

Corinne Mayland: Mayland is M-A-Y-L-A-N-D. I want to go and chime in. I reside in Lansdale, so I am in the River Basin, and in fact, our water that comes to our house is pumped in from Point Pleasant into the North Penn Water Authorities Treatment Plant and then dispersed. So, I have a very personal interest in this. I completely agree with what the statement that were made before with regards to the studies, especially that by Carluccio with regards to the SRBC study that people are saying that is just preliminary analysis and it wasn't really about assessing quality of the water. But the other is there are two other things in the regulations here. It is not just commenting on the banning fracking. There are two other parts that put there.

One is to say that any export of water from the river basin to be used in fracking is to be under the regulation of the commission. I fully agree it should be under the regulation of the commission, but I would like them to actually go further and ban the withdrawal for that purpose. We have too many fluctuations right now in terms of water levels. We can't afford to go and have it being taken out for something fracking for the very same reasons that support a ban on fracking.

The other is there is a rule in there that is talking about whether it's going to allowed to have treatment of fracking related wastewater be discharged into the basin. It goes a lot into speaking about how we are going to test that water. I would rather just put at least a moratorium or a ban on any disposal of the wastewater because it's way too early to be talking about how we are going to test it because we don't even know what is in it yet.

So, I would like to address the people on the line to chime in on the other two parts of this proposed regulation. Thank you.

Operator: Thank you. We will go next to Karen Ferigun. Please spell your last name for the record. You have three minutes.

Karen Ferigun: Thank you. My last name is F like Frank, E-R-I-G-U-N. I am weighing in to comment on some of the things I have heard, various speakers say about how the industry has been highly regulated in Pennsylvania, has been following regulations of Pennsylvania. The fact is being that the DRBC itself does not have a regulatory arm. Therefore, I understand that whatever regulations would be put into place would be for the states to control. But what our experience has been in Pennsylvania and we are clearly the ground zero in fracking in all of this watershed, is that the industry balks at every single time, any time there is an effort to put into place any regulations whatsoever.

Meanwhile on the DEP is vastly under stock. I am able to meet the challenges that have been opposed to it. In fact, in 2014 the general of Pennsylvania said that the DEP was woefully unprepared to deal with the shale gas boom. Nothing has changed. It's only getting worse. So, I just think that that needs to be taking into consideration and when the DRBC is considering the ones in these states to be able to do when there is a resistant industry involved on the other side. Thank you very much.

Operator: Once again, to make a statement today, please press star and one on your touchtone keypad.

Steve Tambini: This is Steve Tambini again. And looking at the list here, it doesn't look like anyone has indicated that they wanted to speak. We will wait her a second to see if there is anybody. I did hear some comments on the phone about whether or not people were having trouble getting in. What we are going to do is we are going to leave the phone line open until 3:30. So let me suggest that let's go on recess until 3:15. We will open up at 3:15 again and see if anyone who has joined. For those who are on the phone at point, once again, if you would like to hang in there until 3:15 or 3:30, you are certainly welcome to do that. If you would like to leave the call, you are welcome to do that as well. So, if you have—looks like we have somebody who has joined. Let's take the next person and then we will take a recess.

Operator: We will go to Fred Stine. Please spell your last name for the record. You have three minutes.

Fred Stine: S-T-I-N-E. And I want to, I just want to support the, what Tracy and Faith and Karen and the others have said. I support a total ban on fracking in the watershed including no exporting of water for fracking outside of the basin and no acceptance of water into our basin from treatment. I think that in our watershed, we have made some, our water quality and habitat for fish and other aquatic species has recovered in the last several decades. We don't want to slow that down in any of those activities either fracking in our watershed or exporting fresh water out, which affects as mentioned the base flow and streams and tributaries of the main stem, and/or importing frack wastewater from outside. All of those present a threat to ours and I think that it would be irresponsible for us to say no fracking in our watershed but support it in other watersheds. I think that that is irresponsible and is not something we should consider. So, I support the total ban on fracking and other elements. Thank you.

Steve Tambini: Okay, operator, unless I am missing something, I don't see anyone who has indicated that they would like to speak at this time. Do you have anybody on your list?

Operator: We have no one at this time.

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Steve Tambini: Let's take a recess until 3:15. Once again, I understand that someone was indicating that people may have had trouble getting in. I would ask you to see if you can research that a little bit just to make sure that there is not a group of people out there trying to get in the call. We will have a little bit of time for that to get cleared up as well. Is that okay?

Operator: Yes.

Steve Tambini: Okay, so let's recess until 3:15. We will leave the phone open until 3:30. So we will just check in at 3:15 to see if anyone has joined. Once again, if you would like to leave, that is up to you. If you have presented a comment or listened in, thank you for joining. If you would like to hang in there until 3:15 or 3:30, that's fine as well. We will check back in with you then. Thank you.

Steve Tambini: Good afternoon again. This is Steve Tambini with DRBC. It's about 3:15 and we are going to reopen the public hearing. This afternoon, we have been on recess for about 15 minutes. In the time that we were on recess, at least one person has joined who may have signed up in advance. I ask the operator to, if that person would like to speak, and then see if there is anyone else who would like to speak at today's public hearing.

Operator: Heather Jaksi, your line is open. You have three minutes.

Heather Jaksi: Okay, thank you. You can hear me?

Operator: Yes.

Heather Jaksi: Okay, hi my name is Heather Jaksi. I live in the town of Highland. I am on the Delaware River. I just want to remind everybody to take a look at South Africa and Cape Town and what is going on with the drought there and that our water supplies are more important than anything else we have right now. Just to prove that we have a state of emergency here because of snowfall and power outages and I have managed to find a phone to call you guys. So, I hope that you will listen to everybody who is pleading to keep fracking out of the quarter and that includes the wastewater. Thank you very much.

Operator: Thank you. Another reminder. If you would like to make a statement today, please press the star and one on your touch tone keypad.

Steve Tambini: Well, it does not appear that there is anyone else new who would like to speak. It is approximately 3:17. What we are going to do is we are going to go on recess again and we will keep an eye on the board here and see if anyone would like to speak. If you would like to, please indicate to the operator that you would like to, but we will go on recess and we will open up again at 3:30 or before if we see people would like to speak. Then we will close the hearing officially at 3:30. Unless I see anybody, and I don't. Let's go on recess again and we will open up right before 3:30. We will keep an

eye on it. If anyone who would like to join the call, please indicate as such and we will get you on the line. Okay, thank you.

Steve Tambini: Once again, this is Steve Tambini with the DRBC. I think there are a few people who are trying to join the call. So, we are going to open back up and I will turn it over to the operator. She may be trying to get new people onto the call. I just want to make sure that they have enough time to speak.

Operator: And at this time, if you would like to make a statement, if you have not already made your statement for today, please press the star and one on your touch tone keypad.

We will go now to Rodney Platt. Please spell your last name for the record. You have three minutes.

Rodney Platt: Hi, I only need a minute. My name is Rodney Platt, spelled P as in Peter, L-A-two T's as in Thomas. I have been following the controversy about fracking on the Delaware for about ten years. I am glad that the DRBC has tightened up some of the regulations. But the latest threat with wastewater being dumped in the river is perhaps the biggest threat of all since there are such carcinogenic chemicals that are part of the fracking wastewater and many, many households rely on the water that comes from the Delaware River downstream. It, to me, is just common sense to not put anything that is poisonous into the river. If the industry can't handle its own waste and then it shouldn't be producing the waste in the first place. Water is the most important resource that we have for life. So, thank you very much for the chance to give an opinion and testify and thank you. Bye bye.

Operator: Thank you. We will go next to Leah Zerbe. Please spell your last name for the record and you have three minutes.

Leah Zerbe: Okay, thanks. My last name is Zerbe, Z like Zerbe, or Z like zebra, E-R-B-E. I am just calling in. I am actually working so I just kind of sneaked off for a few seconds to leave a comment. But I just want to say please support a full ban on fracking. Also, please do not allow the fresh water to be exported out. Please do not import radioactive wastewater. Again, it kind of seems like a common-sense thing. Cancer rates are already very high. I don't think we need to kind of add to the burden on the healthcare system and cause more harm to people by allowing radioactive wastewater into the watershed or by exporting our resource that we are going to need because you know water is going to be one of the most, clean water is going to be one of the most important resources that we are going to be needing moving forward. So please just think in a more, please have a longer vision with this. Just don't think about right now and ban the radioactive import, ban all fracking in the watershed, and ban exploring the freshwater out. Thanks. That's all.

Operator: Thank you and as a reminder to make a statement, please press star and one. We will go next to Tim Devaney. Please spell your last name for the record. You have three minutes.

Tim Devaney: Hi, Tim Devaney, D-E-V-A-N-E-Y. I live in Delaware County, Pennsylvania. I am a lifetime resident of Pennsylvania. The impact of the fracking industry is completely unacceptable. It's ruining our landscape value which has a value in its own right. I have been out to Lancaster where they have the pipeline running through out there and they are fighting it through Pennsylvania Patriots there. I completely support what they are doing. They have exhausted all legal remedies and so they are fighting again and that's the way it has to be.

I mean I would like to see Delaware River Basin Commission just take a bold, progressive move to the future and completely ban fracking industry. It's resulting in the pipelines. It's resulting in exporting our resources that should be—you know if we are going to use it at all, we should be using it in PA, but we don't need it. We can move ahead into the future with solar, wind, tidal, a lot of other things, that you know are better, much better idea. It's sustainable. So, let's just move off of the industry. Stop spending time with studies and just go ahead and completely ban it and let the industry. They will move ahead. Exxon is a big company. They are smart enough to know that their future is elsewhere. So, let's move off fossils and move ahead. Thanks a lot. I really appreciate you considering my comments. Bye.

Operator: And again, if you would like to make a statement today, please press star and one. We will go now to Andrew McGrath, please spell your name for the record. You have three minutes.

Andrew McGrath: Hello, this is Andrew McGrath, A-N-D-R-E-W M-C, capital G-R-A-T-H. I am a resident of Philadelphia, Pennsylvania and one of the 17 million people in the City of Philadelphia and New York who get my water from the Delaware River. I am calling to voice support for a complete and total ban on fracking and all fracking related activities including water withdrawal and wastewater disposal

We know that this is far too hazardous an activity to try to attempt in the Delaware River Basin. We also know that there have been significant droughts and demand on the water in the Delaware River. So, allowing something like water withdrawal of millions and millions of gallons to use for fracking even out further to the west and other areas of PA is not an acceptable practice and not a sound practice for conserving the water for recreation and for, as I mentioned, the 17 million people who use it for water, and the wildlife, all of those types of things.

So, we need a complete ban on fracking and all fracking related activities within the watershed. Thank you very much.

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Operator: Again, that is star and one if you would like to make a statement today.

Steve Tambini: It's 3:30. Operator, I have 3:27. So I am going to leave the line open until 3:30. Oh, it looks like we have somebody else.

Operator: Will the next to Wendy Goetz, please spell your last name for the record. You have three minutes. Wendy, your line is open. Please check the mute function on your phone.

Wendy Goetz: Thank you. This is Wendy Goetz, G-O-E-T-Z, can you hear me fine now?

Operator: Yes.

Wendy Goetz: Thank you. I am a watershed resident. I am very concerned as a mother, not only about our environment, but the lasting impression for an economy for our children. If we ruin our air, our water, and our soil, especially our water resource as a needed human resource, then we will leave nothing for the generations of 17 million people. So, we are all upstream, downstream, and we have the resolve together to protect those generations. I urge you to not allow water withdrawal. I urge you to not allow any fracking waste or any of the fracking industry practice in our precious watershed. I appreciate making comment. I will leave it short so someone else may have a moment if they are on the line. Thank you for your time.

Steve Tambini: Operator, if you could check one more time. This would be the last participant if there is anyone else out there.

Operator: Once again, if you would like to make a statement, please press star and one on your touch tone keypad. I have no one queued at this time.

Steve Tambini: Okay, well that will conclude today's public hearing. I want to thank everyone for participating. On behalf of the Delaware River Basin Commission, I do want to thank those of you who offered your comments. Just a quick reminder that the public comment period remains open until March 30 at 5:00 p.m. You can submit written comments online on the DRBC website until that time. So once again, thank you for participating. That's the end of the hearing.

[End of audio]