COMMONWEALTH OF PENNSYLVANIA

DEPARTMENT OF ENVIRONMENTAL PROTECTION

IN RE: PIPELINE INFRASTURCTURE TASK FORCE

BEFORE: JOHN QUIGLEY, Chairman
Terry Bossert, Dave Callahan, William Sieb, Keith Coyle, Fredrick Dalena, Denise Binley, Dan Devlin, Michael DiMatteo, Joe Fink, Alan Brinser, Anthony Gallagher, Nicholas Geanopulos, Mark Gutshall, Lauren Parker, David Hanobic, Mike Helbing, Walt Hufford, Cindy Ivey, Cristina Jorge Schwartz, Don Kiel, David Messersmith, Marvin Meteer, Duane Peters, Mark Reeves, Leo Bagley, David Smith, Michael Smith, Steve Tambini, Justin Trettle, Davitt Woodwell, Gladys Brown, Joseph McGinn, Representative William Keller

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E X H I B I T S

Number	Description	Page Offered

NONE OFFERED

P R O C E E D I N G S

CHAIRMAN QUIGLEY:

Good afternoon, everyone. Welcome. Thank you for coming to today's meeting of the Governor's Pipeline Infrastructure Task Force. My name is John Quigley, I'm the Secretary of DEP and you're stuck with me as the Chairman. I'd like to start us off with introductions, so if we can just go around the room for the members of the Task Force to introduce themselves, please. Terry.

MR. BOSSERT:

Terry Bossert, Range Resources.

MR. CALLAHAN:

Dave Callahan, MarkWest Energy Partners.

MR. SEIB:

Bill Seib, chief of regulatory for the Baltimore District Corps of Engineers. I don't know if there's any ---.

MR. COYLE:

Keith Coyle, Van, Ness, Feldman.

MR. DALENA:

Fred Dalena, EQT Corp.

MS. BRINLEY:

Denise Brinley, Department of Community

and Economic Development.

MR. DEVLIN:

Dan Devlin, DCNR.

MR. DIMATTEO:

Michael DiMatteo, Pennsylvania Game Commission.

MR. FINK:

Joe Fink, CONE Gathering.

MR. BRINSER:

Alan Brinser, Pennsylvania Emergency Management Agency.

MR. GALLAGHER:

Anthony Gallagher, Steamfitters Local 420.

MR. GEANOPULOS:

Nick Geanopulos, Geanopulos representations.

MR. GUTSHALL:

Mark Gutshall, Land Studies.

MS. PARKER:

Lauren Parker, Civil and Environmental Consultants.

MR. HANOBIC:

David Hanobic, Federal Energy Regulatory Commission.

MR. HELBING:

Mike Helbing, Penn Future.

MR. HUFFORD:

Walt Hufford with Talisman.

MS. IVEY:

Cindy Ivey with Williams.

MS. SCHWARTZ:

Cristina Jorge Schwartz, Apex Companies.

MR. KIEL:

Don Kiel, Seat of Council of Governments.

MR. MESSERSMITH:

Dave Messersmith, Penn State Extension, Penn State University.

MR. METEER:

Marvin Meteer, Wyalusing Township, Bradford County.

MR. PETERS:

Duane Peters, ACEC.

MR. REEVES:

Mark Reeves, Shell.

MR. BAGLEY

Leo Bagley, PennDOT.

MR. SMITH:

David Smith, Pennsylvania Turnpike

Commission.

MR. M. SMITH:

Michael Smith, the --- excuse me. Pennsylvania Department of Agriculture.

MR. TAMBINI:

Steve Tambini, Delaware River Basin Commission.

MR. TRETTLE:

Justin Trettle, Rice Energy.

MR. WOODWELL:

Davitt Woodwell, Pennsylvania Environmental Council.

CHAIRMAN:

And Madam Chair.

MS. BROWN:

Gladys Brown, Pennsylvania Public Utility Commission.

CHAIRMAN:

And we have one more Task Force member.

MR. MCGINN:

Joe McGinn, Sunoco Logistics.

CHAIRMAN:

Thank you, Joe, appreciate it. All right. Again, thank you all for coming, really appreciate everybody's continued investment of time

and energy in this effort. It's incredibly important, and as I'll talk about in a minute, even more so. I just want to first draw your attention to what's on the screen, our calendar going forward. I just want to make sure that folks understand where we're at in terms of the process. This meeting today will be one of the last that we have actual substantive presentations.

November 2nd, Monday, November 2nd, is the deadline for all workgroup reports to be sent to Karyn Yordy of my staff. Then we will, with normal sufficiency and rapidity turn around a draft for the Task Force and Workgroup members just five days later on Friday, November 6th. On Saturday, November 14th we will begin --- we will have the announcement of the public comment period in the Pennsylvania Bulletin. That period will open on November 14th.

On Wednesday, November 18th, we will have a meeting to discuss the draft report. So hopefully folks will be able to speed read once we get the draft report out. Monday, December 14th, the public comment period will close. January 4, the final draft will be sent to the Task Force and Workgroup members for their review.

We'll meet finally on January 13th to

discuss the final draft. And then early in February present the Final Report to the Governor. So we are certainly entering the lightning round now, and just want to make sure that folks have these dates in mind as we go forward. The actual effort here in the meetings will change in complexity and depth once we have a draft in front of us for some work.

Just in terms of my report, just very quickly, I want to maybe underscore the importance of our work together both as a Task Force and the members of the Workgroup. If you're following the headlines at all, you know that there is continued public angst and in some localities continued public protest around pipeline development. And we continue to be in a low-price regime. The gas industry got together this week and there was quite a bit of discussion about the necessity of this infrastructure build-out to overcome the low-price regime. So the work that we are doing here is very important in real time, and our ability to turn a quality document over to the Governor in February I think will put us in a really good position to be effective.

The ambition here is once we have our Final Report we intend that it not gather dust, that it be translated into action, whether that be

voluntary or other policy or other measures that the Commonwealth will take to, again, facilitate the development, provide predictability of this infrastructure build out and reduce community environmental impacts at this same time. So it's --- our work is incredibly timely and I think ever more important for the Commonwealth. So I, again, want to thank you for all of that.

I want to get right into the reports of the Workgroup chairs, so in no --- everyone's number one in our hearts, so please don't take offense regardless of the order here. We're going to start with Mike Smith from Agriculture.

MR. M. SMITH:

Thank you, Mr. Secretary. I too will try to be brief. Since our last meeting, at which time we had one presentation from Jim Gardner from the Susquehanna County Conversation District, much of what he said there was a particular interest to the agricultural field, so we invited him to give a presentation to our Workgroup. That took place about three weeks ago. Good discussion in the wake of that presentation.

We also yesterday had the opportunity to meet with the DEP's internal working group. I brought

with me Doug Wolfgang who is our director of farmland preservation. That's one particular issue that's come up as a need to address for which we'll likely have a recommendation. So we got to talk about those issues. During that conversation, there was also some discussion about the impact in particular to organic farmers given the limitations and restrictions on certain production practices.

Aside from that, generally just redoubling our research mode, looking at what other states have done, looking at best practices, looking at information resources that we might replicate here in Pennsylvania to serve as a resource to land owners. And we're in the process of scheduling our next meeting for the end of this month. Thank you.

CHAIRMAN:

Next, Conversation of Natural Resources, Dan Devlin.

MR. DEVLIN:

Thank you, Mr. Secretary. Well, our group continues to meet every two weeks. We have very good participation. So far all our meetings have been by conference call, and we do have a rather large group, so some of that discussion's kind of awkward at times, but we're plowing through it. We continue to

use our share point site as a place where we all can get together and put down material. We've been populating it, still continue to populate it with information and references for the Committee's use. We are just now starting to draft BMP's recommendations using the template. We are cognizant of the timeline, so we will work on recommendations, BMPs for the next two weeks. We'll have a check in at the two-week mark, then we'll continue on BMPs and recommendations for the next two weeks. Then we'll have a face-to-face meeting in about a month, and that'll leave us about --- and we'll refine our BMPs at that time, and that'll leave us about two weeks to refine our report that we'll submit on November 2nd. So that's where we're at.

CHAIRMAN:

Great. Thank you, Dan. The County Government Committee is --- the Chair, Commissioner Kathi Cozzone, is not able to attend this morning's meeting --- or this afternoon's meeting. She did contact my office earlier today just to report that her Workgroup is making good progress. They're working very hard so we're looking forward to a continued effort from the County Government Committee.

We'll go to Emergency Preparedness next,

Rick Flinn's designation. Go ahead.

MR. BRINSER:

Good afternoon, Mr. Secretary. I'm Alan Brinser with the Pennsylvania Emergency Management. I'm the Chief of Technological Hazards Division standing in for the Director today. We're pleased, we've had two conference calls during that time. On our second conference call, we fleshed out the beginning of what we considered a draft report. Many in the group felt that there's been a lot of work done in this area.

We used the Marcellus Advisory Committee report as a template, which was very helpful advice from the Secretary. We felt that we don't need to so much as reinvent the wheel because so many things have been done, which we're also pleased that you've allowed for a speaker to come today, PHMSA is represented there today. Mr. Keiger was one of the people, among others, who recommended that we have PHMSA speak and I think that'll be a very worthwhile presentation for all of us.

With that said, we also took the recommendation to add a representative from the State Fire Academy to our working group. The representative they'll be sending will help us to validate the plans,

to correct, add or whatever may need to be adjusted in our recommendations and best practices. But our next meeting is a face-to-face meeting at PEMA on October 7th where we hope to finalize the report or get it close to final and work from there. Thank you, Mr. Secretary.

CHAIRMAN:

Great. Thank you, Alan. Next, Environmental Protection, Hayley Jeffords.

MS. JEFFORDS:

Thank you. To date we have had four conference calls and two face-to-face meetings. One of those face-to-face meetings was also a field trip to Towanda, Pennsylvania where we were able to tour some pipeline sites, some that had been completed only nine months prior to us visiting the site and some that were under active construction.

That day we also had some presentations from our Workgroup members, Will Radcliffe and Lauren Parker, over the permitting processes that the Pipeline companies must go through in order to begin development. And that was very helpful so that we can --- as part our call is to look for opportunities to make that process more efficient. So I know our Workgroup appreciated that.

We recently had a face-to-face meeting where we started to really flesh out some of our BMPs and recommendations, getting into active discussions and trying to refine those recommendations. We are in the process of trying to firm up our second --- our third face-to-face meeting coming up in mid-October so that we can really go through all the BMPs we have, because as you can imagine, environmental protection and permitting process planning are very, very broad topics.

So we have a quite a big task ahead of us, but we have a lot of great suggestions already down, pen to paper, and now we're just in the process of going through them one by one, discussing them as a group and getting feedback, making sure that we have support for all of our BMPs. So our final report, we're hoping to have by the last Pipeline Infrastructure meeting, we're going to meet before then to really just refine the grammar and the phrasing and the format. And by November 2nd we'll have our draft report done.

CHAIRMAN:

All right. Great. Thanks, Hayley. Historical, Cultural and Tribal Workgroups, Serena Bellew.

MS. BELLEW:

Good afternoon. We have also had several meetings and phone --- well, in person and over the phone. We are continuing to work on our fairly wide topic, as well. We've decided to have a separate sort of conversation about the tribal issues because of that being more geared towards a Federal responsibility than a State responsibility, but we will still have some recommendations for the Governor regarding how he could interact with tribes that are associated with Pennsylvania.

We have several draft recommendations in the works, we're having another meeting tomorrow. And we're looking at, also, other areas within the natural gas industry, specifically there's an industry and community, I suppose, organization that the Secretary is familiar with. It was called GAP and now it is called LEAP, and we're going to be looking at some of their developed best practices, which is specifically for natural gas drilling, but also I think we can adapt it to cultural resource issues for pipelines as well.

And I will likely be reaching out to the chairs of the --- specifically the public participation and the natural resources workgroups,

because I believe that we're going to have some very similar recommendations, and I just want to see that we're --- how we're overlapping and make sure that we're saying the same thing in the same way. That is the plan for now.

CHAIRMAN:

All right. Thanks, Serena. Next, Local government, Marvin Meteer.

MR. METEER:

Thank you, Mr. Secretary. We had a face-to-face meeting last Thursday. In prior conference calls, we had focused in on three general areas of communications, impacts on our roads and the regulation of service facilities. Last week in our face-to-face meeting we reviewed drafts of recommendations dealing with those three general areas. In dealing with communications, we recognize that that is a two-way process. But it's probably one of the items that our members are most adamant about is maintaining that communication from the pipeline companies to the municipalities.

Impacts on local roads is an item that we've been dealing with from the very beginning of this process and likewise, with the regulations of surface facilities and recognition of surface

facilities, many municipalities are able to deal with that through their zoning ordinances and local ordinances. But we also have to recognize that there are many municipalities throughout the Commonwealth that don't have zoning. So there is an attempt here to cover this issue for all municipalities throughout the Commonwealth.

And finally, we are looking at developing a checklist for municipalities that would be effective in all of these areas. Our members of our Workgroup have been enthusiastic. We had most of our members at our face-to-face meeting last week. Those who were not able to be there did join us by phone, and we had what I would consider very good participation. Thank you.

CHAIRMAN:

Thank you, Marvin. Next, Natural Gas End Use, Sarah Battisti.

MS. BATTISTI:

Thank you, Secretary. We held our second meeting in Philadelphia a few weeks back where we had a presentation from UGI on their Get Gas initiative, which was very helpful in explaining to us how they develop and build out their pipeline infrastructure from a utility standpoint. We also had

a presentation from Terry Fitzpatrick from the Energy Association, which was equally helpful in talking to us broadly about what his group represents, the utilities around and how they build out their infrastructure.

Our next meeting is in Pittsburgh at the Allegheny Conference, where we hope to have further conversations and actually start to discuss our list of BMPs, which we have established and are ready to talk about, and obviously, working with the timeline that we have to have a serious conversation about that. So that's where we stand.

CHAIRMAN:

Great. Thanks, Sarah. Next, Pipeline Safety and Integrity, Madam Chair.

MS. BROWN:

Thank you. Since our last Task Force meeting, our Workgroup has met several times, taking advantage of the fact that the PUC had a gas safety seminar in Penn State a couple weeks of go. So we took advantage of that location. We knew some of our Workgroup members as well as some of the Task Force members would be in attendance there, so we had a face-to-face with an opportunity for people to call in. And then also we have a meeting this morning,

which was a face-to-face, discussing many issues.

One of the issues that we were discussing in detail is on mapping, so with that, we did invite Bill Keiger from PA One Call to come in and give us a presentation, which was very helpful and we had a lengthy discussion on that. Some of our other issues that we're hashing out, of course, is defining the gathering lines and whether they go from the well pad to transmission, as well as regulating class one gathering lines, making them equal to class two gathering lines, pipeline integrity, of course, for all class locations.

Some of the other things that we're discussing, but we haven't gotten into detailed discussions today, but we've mentioned public emergency preparedness and public awareness, and we know that we need to also reach out to the other Workgroups that may be working on some of these overlapping issues. Our next meeting will be September 30th.

CHAIRMAN:

Thank you. Next, Public Participation, Cindy Ivey.

MS. IVEY:

Good afternoon. We've had --- oh,

excuse me. We've had four meetings to date, we had one earlier today. We have set all of our meetings for the rest of October and continue to be a mix of face-to-face and telephone conference calls. We are discussing quite a lot and researching what already exists in the realm of public participation and public awareness as well as discussing recommendations related to some sort of central website for information or a portal that might be organized by stakeholders, including landowners, local officials, environmental groups in helping educate the maze of processes associated with pipeline development.

We're also working on some basic principles for stakeholder engagement for pipeline companies. This would be based on the template of INGAA's commitment to landowners. We're also discussing how to go about maybe earlier and more transparent notification of permit applications and just continuing to enhance and augment really what already exists in continuing our research in that area.

CHAIRMAN:

Great. Thank you, Cindy. Next, Siting and Routing, Leo Bagley.

MR. BAGLEY:

Thank you, Secretary. Over the past month we have some in-person meetings, conference call meetings. We did a site visit to Lycoming County hosted by Lycoming County Planning Commission where we went to a site hosted by Anadarko where we saw pipelines, pad sites and Permian basins, compression stations and saw the mitigations and good practices which we observed on the sites themselves. We had an in-person meeting a couple of weeks ago, started discussing some BMPs. We will start circulating our first draft of BMPs by the end of this week, early next week. We are on schedule for an October 21st in-person meeting again in Harrisburg. And we will have a draft for you November 2nd.

CHAIRMAN:

Thank you, Leo. And finally, last by certainly not least, Workforce and Economic Development, Dave Sweet.

MR. SWEET:

Thank you, Mr. Secretary. We have met three times since the last meeting of this larger group. Those meetings have been by telephone. Our Workgroup has been divided, first, into two Workforce and Economic Development and then secondly, even further sliced between three different workgroups

within those categories. And there's been a lot of effort and research and really centralized data maintenance that's resulted from that work.

We've met with the INDUCE Committee chair, had a wonderful meeting and discussed how there was some overlap between our two groups. And I know some of the members of our committee have been even attending and participating the INDUCE meetings as well, since it was perceived early on by our economic development group that the real key here was the INDUCE opportunities that were going to be made available. And we hope we'll expand dramatically.

We'll have an in-person meeting scheduled next week. At that time we hope to begin to develop recommendations and try to put pen to paper and get some bullet points together for review. And I guess final point, I think we're going to block out a conference room for all day Sunday, November 1st, and I've already ordered coffee for that evening for the inevitable all-nighter that I think not only my group, but many others may well participate in to make sure to meet your deadline. Thank you.

CHAIRMAN:

Thank you, Dave. And just tremendous work, folks. Deeply appreciate everybody's

involvement and energy and commitment to this. And tolerance of ambiguity in some cases, but it's really great work. I want to get right into the presentations today. We will have four great presentations. The first two before break, we will hear from Jeff Logan of the Bravo Group who volunteered to educate us about industry, best management practices and current, kind of the state of the art from the industry perspective.

He will be followed by Nels Johnson of The Nature Conservancy, an individual who I've known for a long time who has done nationally and indeed internationally significant work on the impacts of energy development on the natural world and how to avoid and minimize some of those impacts. So we'll start with these two and we'll introduce the other two after the break. But without any further ado, Jeff Logan.

MR. LOGAN:

Hi, good afternoon. Thank you, Secretary Quigley. And Karyn, if you can get me --- great. Well, thanks again for the opportunity to present today. When Secretary Quigley asked that I present and talk about pipeline exemplary practices, best management practices, leading management

practices, I decided to reach out to lots of parties to better understand what are leading best management practices, whether they're in place now or if they are aspirational leading practices, things we may not have in place now, but what can we do to make pipelines more environmentally safe, safe to our communities and at the same time without constricting economic development.

Before I get started, I just want to thank some of the people that shared their time with me to help me better understand what is a best management practice when it comes to pipelines so that I can better understand before I tried to be understood what I'm going to share with you today. I'd like to thank starting with Davitt Woodwell, John Walliser from PEC, Liz Johnson PA Natural Conservancy, Sarah Battisti Southwest Energy, Dave Callahan MarkWest, Commissioner Pam Witmer PUC, Nels Johnson Nature Conservancy. Not direct conversation, Nels, but by watching a really interesting video that you put on with Davitt and the Secretary not too long ago. Very informative.

Patrick Henderson MSC, Mike Helbing from Penn Future, Mark Brownstein from Environmental Defense Fund and also my dear friends and colleagues

from DEP for their patience in answering environmental science questions to a business guy, such as myself. And finally with great thanks to Karyn Yordy who coordinates all these for all of us. Thank you, Karyn.

Okay. Now, Pennsylvania currently lacks sufficient distribution to move all our natural gas transport to market. Over the next ten years, 20,000 to 30,000 miles of pipeline will be placed in the ground across Pennsylvania. With 2,5631 municipalities, 17 million acres of forest out of the 27 million acres of land in Pennsylvania, this Commonwealth-wide infrastructure build-out poses major considerations for communities and the environment. I think we'll all agree to that.

Just to reiterate the goal of why we're here, to develop a set of leading management practices that will be embraced by industry as part of the pipeline planning phase that will minimize or mitigate negative impacts to our communities and environments. Typically, regulations take two years. We don't have two years, and that's why this group is together. We're seeking to --- on this expedited timeline, to come up with some recommendations to the Governor that can be embraced by industry, that can be embraced by

the environmental community that we can agree on to move forward. I moved through that.

So what do pipelines represent? To some, pipelines represent economic prosperity and growth, to others, extended dependence on fossil fuels. We have differing opinions on what those pipelines represent to us. You know, as we drive the economy forward, we need to do so in an environmentally sustainable way. But the focus of this presentation --- and we have an hour and we'll try not to take an hour. I'm joined with me by Adam Pope who is our energy practice lead at the Bravo Group. We're going to touch on three main points.

Pipeline 101, I'm just going to take a couple minutes to clarify various terms that we hear associated with pipelines so we're clear. Second, I got to focus in on gathering lines. That seems to be where most of the concern resided as I talked to business, industry and communities and the environmental communities also.

And then finally community engagement and communications. This component is super important, you have the science part, but the way in which we communicate with each other --- this, by the way, I think is one of the best management practices

there are. We have to be at the table together, having disparate views, but bringing those together to come up with a solution is clearly a best management practice.

So starting with pipelines, pipeline 101. And please bear with me for those of you that know this inside and out, I just want to clarify some terms. So we have gathering lines, and I think heard from, I think the PUC, they're working on some clarification on defining what gathering lines are with regard to safety and so forth. So I didn't feel that far --- I don't feel that off the mark when I was trying to define were is this short definition of a gathering line, because it doesn't seem to exist.

But in any case, for discussion purposes, gathering lines go from about the well head to a production facility. Transmission lines, from a production facility on to --- into as to interstate or intrastate transmission. And finally, distribution is what's coming to your home, typically, or business regulated by the PUC. Those are the three main categories.

Now, here's a graphic that will depict that. You know, many --- you'll hear a term, well, which line is the midstream line. Because a lot of

people --- we have a midstream industry, where does midstream start and stop. Just for general purposes, midstream really is the transportation from --- includes gathering transportation --- or gathering transmission and also the associated equipment moving that gas throughout the system. Pipelines, according to the Pipeline and Hazardous Material Safety Administration, are regarded as one of the most safest and efficient manners of transportation of natural gas and oils. But there's not --- certainly there are pros and cons to that.

There was just a recent article in the Wall Street Journal that talked about the four main ways to transport these things, pipelines, boats, truck and train, and there is no one solution that has no cons with it. I mean, there are tradeoffs all along on the way here, and so pipelines certainly don't --- there are benefits, but certainly there are concerns.

So I'd like to start with gathering lines and who regulates gathering lines, what are the characteristics of a gathering line, 8 to 30 inches in diameter, 3 to 5 feet below the surface, sometimes deeper. Typical right-of-way is 50 to 75 feet. And, Nels, you may correct me on that when you come up, but

that's the information I got. And finally, they're classified by a class one, two, three or four classification. And that's a classification that has nothing to do with going --- what's underground, it has everything to do what's occurring up on the surface within a mile distance, how many homes, buildings and so forth are --- what's the population density over that pipeline.

Class two, three and four are overseen and very regulated from a safety standpoint. There is a concern that class one, which most of them are, are unregulated. But I think you'll find from industry, when it comes to a class one pipeline, that most of those are put in with the idea of added safety without the minimum --- not making the minimum requirement the maximum effort. Typically, those are installed under the provisions of a class two or three in the event of future development, so they don't have to reduce the pressure of gas or tear the doggone line up and then put a higher class of pipeline in.

Regulating agencies. So we have FERC which typically regulates the transmission lines, interstate and intrastate. We have the Pipeline and Hazardous Materials Safety Administration with safety standards for all natural gas pipelines, including

gathering lines class one through four. The Army Corps of Engineers, waterways and wetlands, they also oversee gathering lines. Department of Environmental Protection oversees gathering lines. And gathering lines have to comply with all the environmental conditions that are required of a transmission line. Even though it's maybe on a private property, it still has to comply with DEP's rule and regs. And that would fall under, also, County Conservation Districts and PHMC. And we can't forget about NMBI (sic). NMBI also applies for any disturbance of land over, I think, it's five acres. Do I see a nod, five acres for NMBI. I'm sorry, PNDI. Okay. Thank you, sorry.

Okay. So why are gathering lines such a challenge to consolidate, co-locate, compared to a regular transmission line. And a lot of it has to do with the fragmentation --- the fragmented aspect of where the wells are located. In the United States natural resources are owned by landowners, private citizens. So there's --- they have rights to do with they want to do on their land and who they want to sell their mineral rights to. And I think the gathering lines, the way we see that spider web of lines, is a bit of a reflection of that.

Industry has to negotiate with

individual landowners if they're going to cross their land to put in a pipeline, a gathering line. There are no --- there's no eminent domain associated with a gathering line, which makes a challenge. I mean, I think we would love to see co-location as much as possible with gathering lines, but it's very, very challenging when you have this engagement the way it's set up where industry has to negotiate individually with property owners.

So, a best management practice, I think from what I'm hearing, would be better education on the part of --- for local government to work with property owners as to what may be the best way to site pipelines on their properties. Again, they have to get landowner right-of-way approval, there are often permitting issues that will change the direction of those gathering lines. And so while it may look like, on a map, there's no rhyme or reason to it, oftentimes it's just a reflection of all the different negotiations that are required to put in that line. So better education would be a best management practice, better working with local government with local landowners to see if they can come up with a smart planning process.

I think better planning would certainly

be in the interest of everybody. And I'd like to --- and part of that, we've heard with regard to PNDI, as you're trying to come up with a strategic plan on where to locate a pipeline, one aspect that makes it a challenge is you don't have all the information associated with where is there an endangered species. If that information was being provided upfront, industry tells me they would have an easier time and more effective time planning out, laying out a pipeline. I know there are a lot of reasons why we don't share that information upfront. But it is a bit like when you play Battleship, you know, you say that E4 is it a hit or isn't it. It does kind of protract the process of trying to locate those pipelines.

A gathering line leading management practice, sized and sited for future community growth is certainly a leading management practice. And as pipeline companies work with local government, where is the growth going to be, sizing those pipelines from a class one to a class three upfront is certainly a leading management practice.

The mitigation of forest fragmentation. Obviously, Route 80 is a classic example of forest swath --- just a giant swath through the middle of the forest that breaks up the habitat, not something that

we want to see with pipelines if we can avoid it. But we see it all the time, whether it's a fire cut on the woods for eliminating a chance of wildfires to highways. If there are ways to accommodate the local habitat to allow that migration across those rights-of-ways, that's certainly a leading management practice to look for.

Co-location is also of interest but, again, a challenge on gathering lines, less so with transmission lines. Capacity sharing, fascinating concept, one pipe accommodating many companies on a metered base. Terrific idea, the one challenge there is when you are metering a capacity-based pipeline like that now you're going to fall into the PUC as a utility, and they are other --- there are many considerations certainly on that front. And we talked about PNDI.

Gathering line construction leading management practices. Soil segregation, when you're stripping that topsoil, making sure that's segregated in a way that after the pipeline is installed you're covering everything up. You're putting that native topsoil and hopefully native seeds and ground cover back over that pipeline to make that come back hopefully the next season the way it was before it was

disturbed.

Edge planting, we heard about edge planting last month, a terrific BMP. Habitat enhancement, equipment cleaning. As backhoes and everything move from a right-of-way into different areas, cleaning those off so they're not bringing in plants and invasive species into that right-of-way that then will have to be dealt with in the future.

Gathering line maintenance best management practices. Documentation, one of the biggest challenge with gathering lines, existing gathering lines, is where are they. A lot of them we've --- the State's been in this business for 100 years, and in many cases we don't know where these gathering lines are, a lot of times we don't know where conventional wells are. So to the degree that we can keep proper documentation on where these lines are being placed as they're being placed and providing that information to local government so that they're aware of it from a first responders standpoint to maintenance, being able to monitor invasive species. Having that information is critically important, GIS capabilities and so forth, but --- and then ongoing maintenance of those lines.

There's a whole lifecycle concept to

this, what happens 50 years from now or 100 years from now with that pipeline after its life expectancy, and I just couldn't get my head around that one. So I don't know. I'm sure there's some more discussion on total lifecycle, whether you pull it out of the ground or plug it some way, but I just kind of left that one open. But that was a comment that I had heard from some.

Gathering line safety best management practices. PA One Call, you're familiar with PA One Call being able to provide the GIS locations where the pipelines are so that in the event that anybody wants to dig that we don't puncture a line. That's always a threat. You know, we had heard about best management practices of aligning lines next to roads. There's always a chance of a backhoe digging these things up, so PA One Call is certainly a best management practice from a safety standpoint.

Standardized markings, so that anywhere in the state there's standardized markings for a location of these gathering lines, is something that certainly should be explored. Consistent communications with local stakeholders, not only preconstruction, during construction, but also post-construction in that ongoing maintenance. And then

finally, annual training exercises with first responders in the communities.

So those are some ideas that we've heard. The Workgroups are certainly putting together similar best management practice ideas to forward up to the Secretary. At this point, I'd like to introduce Adam Pope. Adam is also with Bravo Group. Adam's in charge of our energy practices and works very closely with a number of the midstream companies, energy companies, on specifically community engagement and communications, and he can share with you some of those successes as a best management practice. Thank you.

MR. POPE:

Thanks, Jeff. As Jeff said, I run Bravo Group's energy practice and we are currently advising on several of the largest pipeline infrastructure projects going on in the State and in the Northeast right now. So we recommend, as a BMP, developing a strong, robust community engagement and stakeholder engagement plan. And this way that ensures that your project's built on time and on budget. I know companies can never be completely transparent, project details change daily, but we feel you should try to be as transparent as possible when and wherever it is

possible.

As I said, strong communications and outreach plan is vital because we feel that interacting with those communities, they need to know your companies values, they need to know the benefits of the project. And a lot of times, as many of you know, those individuals that are having the most frequent contact with the community and with landowners are oftentimes third party right-of-way agents, acquisition agents. So it's very important that not only your target audience, but also those representing your company out in the field know your company's values, you know, who your company is and then obviously the project details and the importance of the project.

So this is just a kind of who's who of who your target audience really is out there. And it ranges everywhere from elected officials to NGOs, landowners and impacted members of the community, academia. You know, everyone and everything in between. And I can't stress enough, you know, the importance of County, Township and Borough supervisors, they truly can be your biggest advocate in the community. And they can also be your biggest hindrance to getting that project built. So looking

at this list, now you kind of know who your target audience is and who those groups are.

Now, how do you figure out how they feel about natural gas development, pipeline development, your company and your project? And the answer to that is, you know, research. And Bravo Group, we recommend doing in depth research. And what this allows is, one, it serves as your foundation for your outreach communications plan moving forward. It will be the backbone of your messaging framework but also, you know, we feel that research is listening.

And why is it so important to listen is because when you conduct quantitative and qualitative research you identify who your target audiences are in the community and the corridor, what their concerns are, it allows you to test messaging and your creative developments, your info graphics, your commercials, things like that, your creative treatments. And it also gives you baseline perceptions about your company, the project and the industry as a whole.

So you'll be able to tell what really resonates with those target audiences. Is it the jobs and economic growth associated with natural gas development and pipeline development, is it lower energy prices, is it furthering ourselves towards

energy security. You're able to test what really resonates with those target audiences.

Moving into advocacy, two simple phrases that I like to use in terms of advocacy, it should be early and it should be often. And education, continuous communication are key really to alleviating project concerns. And this also allows you face time and time to really stress that your company's a true partner in the community. And the investments both from a financial side and on the project side of it, but also those community investments that you're making, those sponsorships, you know, those need to be heard so that your stakeholders can share that news with their neighbors.

Continuing on, still under this kind of advocacy umbrella is environmental considerations. You know, companies are doing a lot in the environmental space in terms of their projects and educating all parties on environmental safety considerations that are being taken by your company is important so they understand the steps that you are taking. And really, you know, we feel that education equals advocacy.

A very big stakeholder component of these projects, obviously, is government relations.

Like all other stakeholders, engagement with elected officials should be early and it should be often. And it needs to go above and beyond the walls of the capital and the walls of D.C. The district offices are equally, if not more, important because if a landowner or Borough official has an issue with that project or that company, chances are they're going to go to that District office first and foremost. So educating those District Office staff members is key to these projects. And, you know, in all my time of doing stakeholder engagement, outreach engagement for natural gas industry I've never once has an elected official tell me that they're being updated too often.

Still sticking with government relations, you know, not everybody understands all the nuances to pipeline development, so take the time to truly educate elected officials not only on the industry as a whole, but on how your company builds pipelines and your construction process. And share good news, share milestones but also try to keep particularly District Offices informed of when you're shutting down a road, when you're moving in equipment in, when you're moving equipment out. Those kind of proactive measures really go a long way with staff members in alleviating problems down the road.

Media relations, the one group --- the one stakeholder group, that we've all kind of been the most hesitant to truly engage. But you need to know both who your advocates are and, you know, who are the people that aren't truly in favor of the project just yet. So you need to know who they are, and working with the media is a big component of that. You need to identify trusted sources out in the community that can speak credibly about your project.

Having those third-party advocates out there talking about your project goes a long way. And I think really in terms of early and often engagement of the media and how it can work in your favor, you know, was really made evident over the last several months. But truly last week, as you saw, the positive media attention shown towards what's being done in Marcus Hook and around Sunoco Logistics and the revamp of that area since the refinery shut down in 2011.

Media is also you need to build relationships, you need to meet face-to-face with reporters in terms of a crisis, and unfortunately, they do have it from time to time. You need to identify a company spokesperson who can speak about the project and about the incident. And, you know, proactive pitch, get ahead of project milestones and

times of disruptions, so that when that reporter hears something in the community, they come directly to you to discuss it and get a quote from you. And as always, with any type of media, moderate measure and be prepared to pivot quickly at times.

Digital and social, if you're not operating on digital and social, you should be because all interested parties in natural gas and pipeline development are. So you need to understand who's talking about your project and on what channels. You need to create digestible, easily understood content and move away from industry jargon. Create content that motivates and educates, distribute that content through target audiences on the channels that they're on, that's a big thing. And that's one of the things, you know, going back to the research that we pinpoint is what channels, what social medial channels do people in the community listen to, or is it just do they follow traditional media so you know how to reach those people.

Engage, seek out opportunities to have conversations about the project. Mobilize or rally supporters to spread educational methods and, as with traditional media, constantly measure and be able to pivot.

So what we see is a corporate and crisis comms component to these projects. And, you know, the biggest thing with corporate and crisis comms is develop a master narrative. One of the old campaign slogans is don't ever allow your opposition to define yourself before you can. So come up with a master narrative, who you are and how you're different. As I said before, develop consumer-centric messaging. Why is a project important, you know, is it energy security, is it lower energy costs, is it jobs and tax revenue, and make it digestible. Just because it's important to you doesn't mean it's important to all of your target audiences.

And then obviously develop a crisis communications plan. As we've seen in the past, the community deserves to be updated and open in an honest and timely manner when incidents do occur.

And we've already said in Jeff's --- we know that pipelines are the safest and most efficient mode of moving natural gas, natural gas liquids and petroleum products. You know, environmental community impacts can be minimized by operating and implementing BMPs. And really we feel that industry and communities, in engaging in that open and honest dialogue, really is the best management practice. So

that is it for me. Thank you.

CHAIRMAN:

Any questions for Jeff? I am seeing none. Going once, going twice. All right. Thank you very much. Appreciate it.

MR. LOGAN:

Thank you.

CHAIRMAN:

All right. Our next presenter will be Nels Johnson from the Nature Conservancy. Nels, take it away.

MR. JOHNSON:

Well, thank you, Mr. Secretary. And boy, am I impressed with how much progress you guys sound like you're making already in such a short time. I'm not aware of any single state having such a group looking at all the complexities around pipeline. I mean, I can understand why you might be up at midnight on Sunday, November 2nd, I think I heard. So I guess I'm glad not on one of these committees. But anyway, good luck with your work. So I guess I need to figure out how to get out of here.

So I'm Director of Energy for the North American Region for the Nature Conservancy. I previously was working with a chapter here in

Pennsylvania, so I know many of you in this room and so some of what I'm going to say is not going to be news for you. But we have made some advances in some of this work, even if you have heard of it previously. So I'm hoping that what I'm able to share with you this afternoon will inform your deliberations in the coming weeks.

Okay. Great. So let me just say the obligatory few words about the Nature Conservancy. We are a large science-based organization. We traditionally have been focused on conserving kind of the most important habitats in lands around the United State and now in 40 countries around the world. But as we've done that work over the last 60 years we've come to realize it's not just about buying and protecting land. It's really about looking at marine habitats, looking at river and lake systems. And then understanding how climate and then all sorts of other things are impacting those places that are part of our mission. And that takes us into things like infrastructure development.

We have seven billion heading towards nine billion people on this planet in the next 20 to 30 years. There's going to be a huge amount of infrastructure built to serve all the needs of those

people, and energy is not the least of those. And so what I'm going to do this afternoon is just tell you a little bit about what we think the scale and scope of some of the impacts are, just from the pipeline development part of the energy picture and then what are some of the strategies, and particular a couple of tools, that might be useful in addressing some of those impacts.

So when it comes to oil and gas development, this is what people usually think of. They think about the well pads, they think about what's going on in the oil or gas production areas. This happens to be in North Central Pennsylvania, in the Marcellus up in the Tioga County. And that's what a lot of people think the impacts are. But, in fact, if you actually look at the spatial distribution of where energy's being developed, it's actually more from pipelines than it is from all the well pads and roads and all the other infrastructure that goes into getting oil and gas out of the ground. And so I'm just going to give you a little sense of how big these impacts are as a precursor to talking about tools so we can deal with some of those impacts.

This is from some research that's just been completed by some of my colleagues at the nature

conservancy, looking at the future of energy development in the next couple of decades, something they're calling energy sprawl. And they looked at all different kinds of energy and they've been able to determine that this is by far the leading cause of land use change in America today is energy development. And not just oil and gas development, as you'll see, other kinds of development as well. And much of this energy development, because of the new kinds of technologies we're using, it was taking us in to places that traditionally we haven't seen energy development.

So it kind of challenges some of the conservation goals we might have, it may challenge communities that aren't used to these forms of development, whether it's solar in the Mohave Desert or whether it's Marcellus development in Southwestern Pennsylvania. But we do think there is really tremendous opportunity for getting this right, being smart about how we site and place energy. And so that's really what I'm going to focus on after I get through a few of these impacts. So just to set the stage.

So there are direct, of course, impacts. This is a Marcellus well, three or four acres, direct

impact, pretty obvious. But they're also indirect impacts, and so this is an oil and gas field in the Jonah Basin in Southwestern Wyoming. And you can see that there are lots of well pads and roads connecting them and pipelines connecting it all. But the space in between is that direct impact and may be impacted for species. Like, for example, sage grouse, pronghorn antelope, mule deer are no longer using that habitat in between the places that have been directly converted. So there's also this indirect kind of landscape impact that we should think about as well.

And when they counted up these different kinds of energy development projections over the next couple years based on several energy information administration scenarios that were released last year, they're projecting up to 50 million acres being directly converted from whatever land use it is today to energy production or transportation. Coal's a big part of that picture, and that picture's probably changing as we speak because coal is declining and being replaced by natural gas. So you can imagine the blue part of that pie getting squeezed down and the green part of the pie with natural gas is probably actually expanded even since this research was completed a few months ago.

And in that indirect impact, that's kind of what we call the fragmentation effects and what the habitats are caught in between the direct impacts and that are no longer available for lots of species is a much bigger picture, maybe as large as the size of Texas. And here natural gas does start to be a big part of the equation, in large part because of all that gathering line development that's needed to get the gas out. And this is just a way of kind of trying to show how it's moving into new areas.

So these are oil and gas basins across the United States, and obviously you can see that Marcellus and Utica in this part of the world. And the darker parts of those basins are areas where there hasn't been previous oil and gas development, so most of the oil and gas basins that are thought to have potentially productive resources have not seen development until now. And so we are talking, even within established oil and gas basins, lots of new territory that could get developed in the next couple of decades.

And we can take a closer look, this is the Appalachian Region, and this is just highlighting how forests could be impacted by different energy types. And you can see they don't quite all overlap,

but across the Appalachians you see Shale Oil and Gas, you see coal, you see wind all impacting forests in different places. And so this was just projections that we've done to try and get an understanding of how forests over the next 20 or 30 years might be impacted by different kinds of energy development.

And then we did more specific work in Pennsylvania here a few years ago to get an understanding of where energy development is more than less likely. And if they are going to be something like 10,000 well pads in the next 20 or so years, this is what that might look like using a probability map of potential oil --- well, I should say Marcellus development here in Pennsylvania. So you can get a sense of the geography that comes into play. And if we were to overlap that with important forest areas, especially in the North Central part of the state, you would see a lot of overlap.

So pipelines, in the United State we already have about 300,000 miles of large diameter natural gas pipelines. We have about half that much of hazardous liquid pipelines. And the pipeline industry is estimated at about 5,000 miles of large diameter natural gas line being built every year. I think that's a significant underestimate, it's

probably at least twice that. But in any case, that is a large amount of pipelines being built every year. And here in Pennsylvania we're going from about 12,000 miles large diameter pipelines, it's probably going --- our projections indicate it could at least quadruple just by taking gathering lines into account, not looking at the longer distance transmission lines which will be a shorter overall impact on the gathering lines but, nevertheless, would increase that footprint.

So when you put that footprint together, as I mentioned earlier, I mean the accumulative spatial area that the pipelines lines take up is more than all the rest of the infrastructure. So what you're really focused on really is the most important piece of the puzzle. In fact, at the University --- or actually at Carnegie Mellon University, there's some researchers there who've looked at how do you reduce the fragmentation of forests when it comes to oil and gas development. And they found you could reduce the fragmentation of the impact 85 percent just by co-locating gas lines with either existing roads or other pipelines or other transmission lines.

So we know this is really one of most challenging pieces of the whole energy development

puzzle when it comes to oil and gas development. And there you can see a projection that suggests that maybe up to 300,000 acres could be directly impacted by pipeline development here in Pennsylvania the next couple decades.

And, of course, there are a variety of impacts, we can see water quality. Obviously, building pipelines on really sleep slopes can lead to erosion into streams if practices, some of the leading management practices we've heard about earlier, are implemented. We certainly can see habitat loss depending on where this infrastructure goes. And it's not just pipelines, it can be things like compressor stations which could take five acres or so for just one compressor station. And, of course, we see fragmentation from the pipelines themselves. I mean, if you have 100 foot right of way, you're going to see about 12 acres cleared for each mile. So just say that as kind of a rule of thumb.

And Jeff did mention that gathering lines are typically 50 to 70 feet wide. And that's true when they're finished, when they re-grow, but typically it's about 100 feet that's actually cleared, enabled enough space for construction. And that's one place where maybe we can get some improvements by

narrowing those right-of-ways by getting technologies and methodologies in place that we can narrower right-of-ways, at least in certain sensitive locations.

And then there's these broader kind of indirect impacts, and this is just a way of trying to visualize it. As you create that new opening in the forest, for example, you see increased light, reduced humidity, increased invasive species, increased predation, you can see increased storm damage, the trees along the right-of-way. So that's kind of the indirect. And that goes --- you know, forest ecologists typically say once you create a pathway or a swath through a forest you're going to see impacts about 300 feet into the edge of the forest. So if it's 12 acres a miles just for the clearing, that more indirect impact, even though the forest is still there, lots of species that aren't using it anymore, it covers about 72 acres for each mile of that new pipeline development. So about six times what the actual direct clearing impact is.

So those are some of the reasons why, we think, it's really worth trying to do smarter planning around pipeline development. Those are some really significant impacts, we think, and cumulatively lots of places, not just in Pennsylvania but in the Central

Appalachians and really across the county are likely to be affected.

So I want to shift now to talk a little bit about strategy tools. And I'm really going to talk mostly about tools, the Secretary asked me particularly to focus in on tools. But I'll just indicate that there are broader strategies that these tools can serve to support, right. And we heard a number of those strategies by Jeff Logan just a few minutes ago, so I just won't spend too much time on these.

But they're some obvious things like sharing capacity, demonstrating a need --- that you actually need that additional pipeline mileage. Regional landscape planning is really an important part, we think, that should take place at the very earliest inkling of needing to develop a pipeline someplace. And in particular, I'm going to talk about a couple tools that can help with that process. There's been some talk about mitigation fees or impact fees, so for example, if a pipelines goes down a very steep mountainside that's forested with really erodible soils, maybe there should be an impact fee or mitigation fee that's higher for that kind of pipeline than there would be for pipeline that's in a really

stable and maybe already cleared area or the existing right-of-way.

Co-locating pipelines, we've heard a lot about that. What are the different kinds of right-of-ways, what are the barriers to co-locating? You know, can we do an inventory of what those barriers are and figure out if there are policy or administrative ways around those barriers? I mentioned narrowing right-of-ways as something. You know, it's pretty interesting. There's a park in New Jersey --- a county in New Jersey, where they have a 36-inch line that goes through it with a 12-foot right-of-way. They were actually able to do that. There's now a hiking path that goes right over where the pipeline is and they've made it kind of wind through the park. So it's not a straight line, it actually has some curves to it. And you would never know that there's a 36-inch pipeline underneath that trail. So it can be done, and I'm not saying it should be done everywhere, but there are places where we might want to try and pursue those kinds of approaches.

And then, as we heard from Jeff earlier, there's right-of-way management. These pipelines, when they're built, there are things that we can do to lessen the impact and actually make them a positive

feature in certain situations for wildlife and for people who live nearby.

So the first thing I'm going to talk about is a tool that we developed called EnSitu. This is really focused on the oil development or the gas development field itself, and it includes roads, pads and gathering pipelines. And so I bring it up because I know gathering pipelines is something that you are looking at.

We also think this tool could be adapted for longer distance transportation lines, although it's not configured to do that now. And basically this is tool that we've developed with several partners at the University of Tennessee, the Cadmus Group with support from the Colcom Foundation, Richard King Mellon Foundation, the J.P. Morgan Foundation.

And the tool is really designed to help kind of, if you will, optimize impacts, reducing impacts versus the cost it takes to reduce those impacts. And so it generates a bunch of different scenarios for developing a given area. And then it estimates environmental impacts in a range of different issues or criteria that can be spatially mapped. And then it actually tells us what the cost of each or the relative cost of each of these

scenarios is.

And so we've developed this to be kind of a voluntary tool, though we can imagine it also being used in a regulatory context to evaluate applications. But it's really intended to help companies go beyond regulatory compliance. Many of the impacts we're talking about that we'd like to see minimized or avoided are not addressed in any regulatory context. For example, forest fragmentation. There is no regulations that say you can't fragment forests, but we think it's a good idea. So we would like to make it easier for companies to find ways to do that.

And like I said, we recognize that companies have to deal with costs, right. I mean, people aren't going to do something different or new if it's going to cost a whole lot more. So we're trying to understand and map out what the costs of these different scenarios are so that companies can make informed decisions about pursuing them. And as I said, we think this took can also be focused only on the linear infrastructure, like longer distance transmission lines, although we'll have to do some work to get it adapted to do that.

So it basically works by taking a bunch

of base data that we've already assembled, it takes, then, user-provided inputs that a company would have, for example, what are the least boundaries that it's looking at, or where is the transmission line it needs to hook in its gathering lines into so it can accommodate that user input. And then it generates all these different scenarios and evaluates the costs and the impacts. And so we're really looking at oil and gas operators, consultants.

Consultants really have become a really important audience for us on this, because they do so much of the planning for oil and gas companies and pipeline companies. So we're really starting to look at how we can reach the consulting community with tools like this, as well as large landowners, public land managers, for example. Dan Devlin of DCR, they could use our tool perhaps. And we could imagine regulators using it as a way of evaluating applications, for example.

So the tool is organized with data for this region, the Marcellus region essentially that you see shaded here in yellow. So anywhere in this region the tool can work starting today. And it basically works by setting out production units then laying out where the pads might go, and then it lays out roads

and pipelines for a whole bunch of different scenarios. And then for those scenarios we can actually look at how they're spatially different, and then for each different scenario we can understand the difference in the metrics, whether it's forest acreage lost, whether it's wetlands encroachment. And we can also look at the costs as well, things like side fill which is very expensive if you're putting a pipeline on a steep slope, for example. And we can look at road costs as well.

And each layout we can get really detailed kind of information about that scenario. and then what we hope will happen is that the tool will actually pick kind of the optimized scenario three, in this case, and the tool will, you know, basically promote that as the kind of optimal solution that does the most reduced impacts at a cost that isn't, hopefully, too high for a company to pursue.

And this is just to indicate that it's a step-wise menu. It's very user friendly. I mean, you do have to have a pretty sophisticated GIS operation to do it, but if you do have that ---. And we've been testing this tool with several companies and several other land management organizations, not just here in Pennsylvania, but in some other states nearby, and it

works. I mean, it is something that companies or resource agencies can easily use. These are just some of the kinds of inputs, I don't need to go into all the detail. But the point is here is that it's relatively straightforward to use this tool.

And it's got lots of documentation so that people can actually educate themselves to use the tool. Since we only have a few people that actually work with this tool, we're not able to provide technical support to everybody. We are exploring partnerships with several consulting companies that might be able to provide that kind of technical support and actually do an analysis for companies or for government agencies.

And then I'm going to talk just about something that's a little further upstream in terms of development, so to speak. This is a regional pipeline siting kind of concept tool that our North America science team has developed. And essentially, what it's doing is building a least-cost model for where a pipeline can go from point A to point B. Again, using the same kind of data I was just talking about, both environmental or species or habitat data or other things. It might be community data, you're not going to go right through a community or right through a

school. And also cost data, because obviously, you know, if there's a really prohibitively expensive route it's probably not going to be taken terribly seriously by a pipeline company. And there you can see some of the ---.

So we're just starting to work on this. It does work in conceptual terms. Our lead scientist for North American, Joe Fargioni, would love to find a state to test this in with some real data and some real partners. So just a little plug in, if anybody in Pennsylvania is interested, Joe would be happy to have a conversation with you.

And then finally I'll close with some documents that are coming out. And it says will be released in September of 2015, it's actually October. My wife says I'm a dollar late and dollar short Johnson and so I didn't come up with the latest release date. So it'll be out in just a couple weeks.

But these are documents that we've developed to help provide fairly straightforward guidance on a range of different topics, leading conversation practices we've called them, to reduce habitat and wildlife impacts. And they're four or five pages each, they're heavily referencing the science that's out there on these impacts and

practices that can be used to avoid and minimize those impacts. And then we actually kind of stick our necks out and recommend what we think companies should do in those settings.

And there's kind of the basic characteristics of these practices that are coming out. And we've got quite a few topics there. Unfortunately the pipeline development one is kind of at the tail end of this process so it's not quite ready yet. I'm hoping there'll be a version of it that, you know, the Task Force could take a look at in the next couple of months. And then there's some things we just haven't covered because they're not really part of our expertise, and that really is so related to habitat impacts, things like air quality and risk of spills and public health and safety issues. And I'll leave it there. Thank you very much.

CHAIRMAN:

Thank you. Questions for Nels? Serena.

MS. BELLEW:

Good afternoon. I'm Serena Bellew with the Pennsylvania Historical Museum Commission.

MR. JOHNSON:

Yeah.

MS. BELLEW:

We're also the home of the Pennsylvania State Historic Preservation Office. So we look at a lot of these things in a sort of similar way that the Natural Resource community does.

MR. JOHNSON:

Yeah.

MS. BELLEW:

My questions is, is your tool, EnSitu, do you think that that would also actually be something that could be used to do predictive modeling for archeological science? We are always looking for ways to partner with existing technology, and oftentimes archeology exists in similar environments to endangered species and other things. And so we were just wondering what --- I was just wondering what you thought.

MR. JOHNSON:

So that's a great idea. I think there's some ---.

MS. BELLEW:

I don't have any money, before you ask me that.

MR. JOHNSON:

There's some issues there. So our tool,

for example, the tool does not have specific occurrences of species in the PNDI database because there are restrictions on the public use of those very specific locations. I understand that the Museum Commission has similar restrictions on the specific archeological site.

So we've tried to model -- I mean, we have all that data. We just can't show it in the tool. So we've taken all that data and we've actually modeled --- we've used it to build models of where these species are more or less likely to be. So that in the tool, and perhaps the same could be done on the archeological side. On the other hand, you know, if a consultant was working with Commission data, for example, and had this tool, they could put that data into the tool for their own use, if they have a license that's in force with you. So in that case, yeah, I mean the date could go straight into the tool. It's just another user input layer.

MS. BELLEW:

Okay. Great, I'll tell my GIS people to look at it. Thank you.

MR. JOHNSON:

Okay.

CHAIRMAN:

Terry, you had a question?

MR. BOSSERT:

Yeah. A couple questions, Nels. As you know, Range has worked with TNC from the very beginning of the tool. But I think the question that was just asked fits in with the one that I wanted to ask, and that is there are certain things that aren't in the tool.

MR. JOHNSON:

Yeah.

MR. BOSSERT:

From the operator's standpoint, maybe the biggest thing that's not in the tool is the landowner's views on things.

MR. JOHNSON:

Right.

MR. BOSSERT:

They often have a lot to say as to where pads are located or where pipelines go through. Is there a way to --- and what you just mentioned, if you don't have the PNDI data integrated, I mean, is there a way to bring it altogether? I mean, I think a lot in industry whether they're ENP, like us, or pipeline folks, if there was a way to say give me all the information, then I can plot out where's best to go

and not go. I mean, that would be something I think everyone would find attractive.

MR. JOHNSON:

Yeah. Well, so we've done our best, Terry, to try and incorporate as much data as we think are important or are available. The problem is that not all the data is available. So how do you map, if you will, landowner preferences for where they want things to go? We don't have that data at the scale of the Appalachian region. On the other hand, the tool might be useful in communicating with landowners, saying look, we've done this evaluation and we think the place for the lowest impacts from an X, Y and Z point of view are here. You know, if could be used as a way of, you know, communicating with the landowner and talking to them. But no, it's not going to ---.

And that's a right challenge; right? I mean, that's one of the biggest challenges that both the industry faces, but also those of us on the conservation side faces, you know, what do landowners want to do. And often they do want to do the right thing, but not always. They may not be informed or they may not be aware of what the impacts could be, and so it's hard for them to make the right decision sometimes.

MR. BOSSERT:

And I got a follow-up question. You gave us some statistics on the footprint of pipeline. Has that been broken down in any way between what I'll call already impacted area, like farm fields or whatever? I mean, ---

MR. JOHNSON:

Yeah.

MR. BOSSERT:

--- as part of the footprint of the pipeline, but it may not create any meaningful habitat.

MR. JOHNSON:

Right. So that 300,000 acres that I cited earlier is just for forests. And it's about 60 percent of the mileage of pipelines in Pennsylvania today is in forest areas, about 40 percent isn't. You know, one of things that --- you know, we had a group meet with us in May with Carnegie Mellon University as co-host getting kind of the best thinkers on a range of these same topics that we're talking about here today, and one of them was pipelines. And one of the suggestions that came out of that group was, you know, we ought to map across the state where are the new pipeline right-of-way issues going to be much more

prominent and where are the places where they're less prominent, at least from a habitat or environmental standpoint.

So we have a better sense, because not every place is equal; right? I mean, Pennsylvania is a large state, 29 million acres, not all of those acres are as important as others from a habitat or conservation point of view. And then, of course, you know, our tool doesn't take into account everything. But one of the things that the tool can do is, you know, if there's social or economic or cultural data that's really important in an area, that could be put on the tool and the tool can take that into account.

CHAIRMAN:

Other questions for Nels?

MR. MCGINN:

One question. In the last two presentations co-location has come up.

MR. JOHNSON:

Yeah.

MR. MCGINN:

So as you look into your tool, have you run models in terms of what that means for a reduction in I guess habitat impacts?

MR. JOHNSON:

You know, we haven't actually run that. I did mention that there's a research team at Carnegie Mellon that has done that, actually using --- they actually used or impact assessment work that we did here in Pennsylvania. And then they created their own little model that ran different pipeline scenarios, including just following existing roads and utilities rights-of-way. And they're the ones that found that they can reduce fragmentations impacts by about 85 percent in that one setting, at least up in Tioga County, I think is where they did that.

CHAIRMAN:

Other questions? Mark.

MR. GUTSHALL:

Mark Gutshall, Land Studies. Nels, on the third slide you reference a term offset. Can you further define what you mean by that? And do you feel as though the State of Pennsylvania currently has the procedures in place to implement offset.

MR. JOHNSON:

Yeah. So offset really is part of what we call the mitigation hierarchy. So when you're thinking about building infrastructure, first of all, you want to avoid the most important places. When you can't avoid, then you want to minimize the impact.

Even when you minimize the impact, there's still going to be some impact. And the offset refers to if you, say, lost ten acres of forest or ten acres of wetlands is there another place that you can replace that ten acres, either by restoring forest that isn't there or finding forests that's very vulnerable to, say, residential development and transferring it to, say, a state park or local park or something like that where it's protected. So that's what the offset means.

Pennsylvania does not have, you know, a robust mitigation framework for anything other than wetlands, really. And I think that process is under review or revision by DEP right now. Ideally we would love to see all this kind of infrastructure subject to mitigation because we think it would lead to a lot better land use decisions overall and not just, by the way, energy development but all forms of development.

Some countries, like Columbia, we've been working with a country in Columbia recently, they have now have a policy in place, a national law, that requires mitigation and mitigation fees that are progressive. So mitigation fees are really, really small or light in places that are low impact or low conflict, and then they get increasingly high as those impacts or those conflicts become sharper. And that

idea being to try and encourage developers to go to the places where the least conflicts are.

CHAIRMAN:

Other questions?

MS. SCHWARTZ:

Hi. Cristina Jorge Schwartz from Apex Companies. I actually have a few questions. It runs on an Esri platform?

MR. JOHNSON:

It does.

MS. SCHWARTZ:

Okay. And is it online only or is something I download as a tool so I could put what I need into it?

MR. JOHNSON:

You have to download it.

MS. SCHWARTZ:

Okay.

MR. JOHNSON:

It's not online. It will freeze up any online system on the planet ---

MS. SCHWARTZ:

Sure.

MR. JOHNSON:

--- because it takes too much space.

Yeah.

MS. SCHWARTZ:

Agreed. That was actually one of my concerns.

MR. JOHNSON:

Yeah.

MS. SCHWARTZ:

And do you have a cost associated with this?

MR. JOHNSON:

We don't. We're looking at that right now. Right now, we're happy to provide it anyone who wants to use it and test it. And so that's kind of what we've been doing, and as Terry said, Range is one of those companies that we've shared the tool with. We've shared it with several other companies as well, so ---.

MS. SCHWARTZ:

Great. Thank you.

CHAIRMAN:

Other questions? Seeing none, Nels, thank you very much.

MR. JOHNSON:

Thank you.

CHAIRMAN:

Folks, we will take a ten-minute break and reconvene at 2:35.

SHORT BREAK TAKEN

CHAIRMAN:

Two more presentations that we will go through. And first, we want to welcome Sam Hall from the U.S. Department of Transportation who will be talking with us this afternoon about pipeline emergency response resources. Sam, thank you for coming today.

MR. HALL:

Thank you. Thank you for inviting me. Good afternoon. My name's Sam Hall. I'm with the U.S. Department of Transportation, Pipeline and Hazardous Materials Safety Administration. For those of you who are not familiar with our organization, we are an administration within DOT. Everyone's heard of the FAA or the Federal Railroad Administration, Federal Highways. We're the Pipeline and Hazardous Safety Administration. And we oversee the safe shipment of hazardous materials by all modes of transportation. We regulate the shipment of hazardous materials by rail, water, air, over the road and through pipelines.

I work in the Pipeline Safety Office of

the Pipeline and Hazardous Materials Safety Administration, and I wanted to take some time to talk with you today about some resources that are available to you to help improve pipeline emergency response at the state and local level.

So the goals of pipeline emergency response readiness are awareness of pipeline safety issues among all stakeholders, among anyone that it would matter to. So that would include public officials, emergency responders, excavators and the public. And we heard some of these stakeholder audience groups mentioned in a previous presentation this afternoon. And then our second goal is community preparedness in the event of a major pipeline emergency. So it's not just awareness, it's also being prepared for when things go wrong.

Those goals have quite a few challenges. First, pipelines are out of site and out of mind. One of the previous speakers spoke about there being 300,000 miles of natural gas transmission pipelines, 180,000 miles of hazardous liquid pipelines. They're also just over two million miles of natural gas distribution pipelines in the United States. Most of those faculties are underground, they are out of sight and out of mind for a lot of folks who really should

be more aware.

Public safety officials have competing concerns and limited resources. It's far more likely that a public safety official is going to have to deal with a weather disaster, an automobile disaster or something of that nature than a pipeline disaster. Pipeline emergencies are relatively rare compared to the other threats that face our communities. So because of that, pipeline emergencies do not get the time that they deserve when it comes to planning for dealing with an emergency.

Another challenge is that calls to 911 and to emergency responders for odor of gas, you know I smell gas, I smell rotten eggs, I think there's gas in the house, that may be a common occurrence. And, in fact, firefighters around the country will tell you in areas where gas service exists, these odor of gas calls are very common. But major pipeline incidents as a result of those odor of gas calls are really rare. They happen, but they're relatively rare. So communities often get complacent about pipeline safety because the pipeline company has it under control, you know, if there's an odor of gas call, yeah, our firefighters go out and take care of those calls on a regular basis.

What communities are not prepared for is when those common incidents go wrong and become a major catastrophe. All of that really leads to catastrophic pipeline incidents being very low frequency, low probability but very high consequence events. And a large catastrophic pipeline emergency can quickly overwhelm a local emergency response capability.

A little bit about our regulations and what they require of pipeline operators. We require pipeline operators, through a set of regulations called our Public Awareness Regulations, to communicate with stakeholder audiences that may be affected by their pipeline operations.

Pipeline operators are required to conduct public awareness outreach to the affected public, to local public officials, to excavators and to emergency officials. So that is to say, every pipeline operator in the country is required, if they're subject to the regulation, to contact these four stakeholder audience groups and tell them that the pipeline exists, what's in the pipeline, what are signs of a pipeline release and what to do in an emergency.

Now, those regulations came into effect

six, perhaps seven years ago. And we are learning quite a lot about how to perform effective public awareness and how pipeline operators can improve their public awareness programs. One of the things that we have found as a real weakness in those public awareness regulations is that they do not require anything of the stakeholder audience groups. PHMSA is a federal administration of the DOT, regulates pipeline operators, we require pipeline operators to take action.

We do not require stakeholder audience groups to take action. So if a pipeline operator invites emergency responders and local elected officials to a public awareness meeting in the community and those emergency responders and public officials don't show up, it's a lost opportunity. So that being said, you know, we are trying to stress that communities do have a responsibility for understanding pipelines, for attending these public awareness meetings, which we require of the pipelines operators. We require those operators to conduct those meetings. Local public officials, emergency responders need to be engaged and have a responsibility for understanding pipelines in their communities.

PHMSA, as part of our regulatory scheme, partners with the states to help us cover the majority of the pipelines in the U.S. So in general terms, PHMSA as a federal agency regulates and inspects interstate pipelines in general. The states then inspect intrastate pipelines, which are often --- the bulk of which are distribution pipelines within states. But then also some states have agreements with us to inspect intrastate pipelines, and even in some cases interstate pipelines.

Our agreements with the states vary by state. We certify state programs on an annual basis and we cover up to 80 percent of the costs of the state's pipeline safety program through a grant called the State Pipeline Safety grant. Otherwise, PHMSA as such as a small agency would not be able to inspect the vast network of pipelines in our country. And we do rely heavily on our state partners for carrying out that responsibility.

The Pennsylvania Public Utility Commission here conducts inspections over public awareness regulations and, of course, all other safety inspections for natural gas distribution pipelines here in the state, class one through four intrastate natural gas transmission pipelines and class two,

three and four gathering pipelines, as we mentioned. And then PHMSA would have jurisdiction over hazardous liquid and interstate gas transmission pipelines.

I mentioned that public safety officials do have a responsibility to know about pipelines in their communities. Really effective pipeline emergency response is a shared responsibility. It is not strictly the responsibility of the pipeline operator, it is not simply good enough to say the pipeline operator should tell us where these things are and should be ready for an emergency, it's really a shared responsibility. State and local public safety officials have a responsibility to engage with pipeline operators and to understand their role in the event of a pipeline disaster.

We know from past pipeline incidents that communication before an incident occurs is the most important aspect of effective pipeline emergency response. Local public officials, emergency responders should get to know the pipeline operators in their communities firsthand. Shake hands, say hello, know who you're calling in the event of an emergency. Pipeline operators become the partner of the emergency responders and local officials in the event of a pipeline emergency. Pipeline operators are

really the technical experts on the scene that can help mitigate the impacts of a pipeline emergency when it occurs.

And then, of course, on-scene is --- on-scene communication is essential during an incident response. The incident command system is in a very --- it's a very effective means of maintaining communication on scene between pipeline operators and between and among emergency responders who are responding to the incident.

PHMSA is working hard on furthering the goals of public awareness regulations. We have learned that the approach that I mentioned of requiring pipeline operators to go out and conduct these public awareness campaigns, they are effective. They have moved the ball, so to speak down the field, but they are not necessarily the entire solution. Pipeline operators' power and reach is limited, especially when we understand that emergency response preparedness is a shared responsibility. So PHMSA's exploring ways to solve this problem through other means.

The first tenet of our approach is to create sustainable pipeline awareness solutions. And so by that we mean we are looking to pursue

initiatives that both require and empower local governments and state governments to engage in pipeline safety through existing channels. When I say existing channels, we've heard again and again don't reinvent the wheel. Pipeline public awareness does not need to be a wholly separate awareness campaign in all regards.

For example, training standards for public safety personnel, like firefighters, EMTs, 911 call-takers, if we can update and adopt training standards for those emergency responders, we will have gone a long way to increasing awareness in those communities. You've got firefighters attending required firefighter training on at least as foundational training when they first begin service and then annual trainings overtime. If we can bolt on pipeline safety awareness training, at least generic messages about pipeline safety, to those training standards, then we guarantee that every emergency responder, every firefighter at least, in the country is going to be exposed to the word pipeline.

Remember, pipelines are out of sight, out of mind, underground. Firefighters can go 40 years in a career, a career firefighter, and never see a pipeline accident beyond a simple gas leak, you

know, at a meter. They often never hear the word pipeline. They're very aware of other hazardous materials vessels in their communities, perhaps train, you know, fixed facilities, chemical plants. Those kinds of things are common knowledge in the emergency response community, but pipelines are not. So if we can bolt on pipeline language into those training standards, we've gone a long way to at least exposing our emergency responders to the basic concepts.

A second idea, include pipelines in hazard mitigation plans, threat and hazard identification and risk assessment plans, THIRA plans. A lot of community and local activity flows from hazard mitigation plans. You identify the hazards in your communities, you identify how you're going to mitigate those hazards and people take action to prepare.

We have noted that in lots of hazard mitigations plans, especially at the State level, and I would venture to say most hazards mitigation plans, pipelines are considered critical infrastructure that is subject to damage from outside forces, like another kind of disaster, a flood, a hurricane, an earthquake. You know, hazard mitigation plans look at pipelines as infrastructure that could be impacted, not as a

container for hazardous materials in the community that could cause an impact in and of itself. If we can reverse that equation and get hazard mitigation plans to start addressing pipelines, we can move that ball further down the field.

Regulation, of course, plays a very critical roll. One Call enforcement, that is making sure that people are calling 811 before they dig, is essential to really preventing pipeline emergencies, not in particular responding to them but in preventing them. Our pipeline safety regulations certainly are constantly evolving, changing and growing and they have a huge role to play. And then communications through existing channels. Here what I mean to say is that, you know, we talked a lot about --- or I think in our last presentation the speaker spoke about trust, building trust with your community between the pipeline operator and the community.

What we have found as Federal employees, as Federal Government Federal servants, we're not necessarily trusted by the public. We're not necessarily trusted by excavators or even emergency responders in some cases. It really depends. But we do know that firefighters trust firefighters. We know that, you know, 911 call-takers trust the associations

that represent them, they trust themselves, farmers trust themselves, they trust the Farm Bureau, they trust extension services.

If we can communicate through those existing channels, again, avoiding reinventing the wheel, but taking basic pipeline safety messages, inserting it into the communications of the various stakeholders around the country and having them carry that message to their own members, it will resonate much better than if the message is only coming from the Federal Government, State Government, Local Government or pipeline operators. It's a matter of trust, it's a matter of believing what you hear.

And then lastly we are focused heavily on creating quality resources for local governments, training materials, information resources and common messages that apply to all pipelines. And I've got a few slides that I'd like to just walk through. I'm sorry this may be a bit death by PowerPoint, there's a lot of text on these, but I think each of these is important to mention and I have included hyperlinks and urls so that you can get more information where it's possible.

So I mentioned training standards, bolting and pipeline safety messages for emergency

responder training standards. We are currently in the process --- and when I say we, I should say the National Fire Protection Association, is in the process of updating Standard 472, which defines competencies for hazmat responders. In the past, the Standard 472 never had the word pipeline in it, despite the fact that it's a standard for hazmat responders. To not have the word pipeline is a real missed opportunity. So that standard is being updated with information about pipelines so that at least those firefighters and hazmat techs and so forth who are trained to that standard will be exposed to the concepts of pipelines being conduits for hazardous materials in your communities.

We also helped to create a standard from the National Emergency Number Association, or NENA, they're the folks that represent some of the 911 call-takers around the country, public safety answering points. I think that's the right use of that acronym. We helped create Standard 57-007, and it's a protocol for 911 emergency call-takers.

In Marshall, Michigan, several years ago, there was a large liquids spill. One of the challenges in that incident was that 911 call-takers were getting calls about odor of petroleum, you know,

I smell something funny, something's going on and the call-takers didn't know how to handle that call. You know, they would dispatch a firefighter, they'd dispatch a police officer, go check out this odor, but they didn't have the laundry list of questions that you would ask in any other emergency situation. So, for example, if you call and say I can't breathe, they're going to start asking you questions based on a protocol, shortness of breath, you know, are you dizzy, are you --- you know, there are a bunch of other questions that they are going to ask to help them understand how to dispatch the right resources to that emergency.

There is now a standard that's available through NENA for those 911 call-takers, and it's our hope that NENA, if they haven't already started, is pushing forward with actually training to that standard.

There are also lots of --- there are quite a few efforts on going at the local, regional and national level to try to institutionalize local government engagement in pipeline safety awareness. Some of those activities have been funded by PHMSA through a technical assistance grant. There have been many activities here in the State of Pennsylvania that

have been funded by technical assistance grants to help raise awareness among communities about pipeline safety, various pipeline safety issues.

We've established a public awareness program working group. I mentioned that we have learned a lot about our public awareness program regulations and we are investigating those and evaluating the results of the program to date. Again, it's been six or seven years since that program's been active and we are taking a good, hard look at our inspection results, finding out how those public awareness programs are working and how we can improve them.

And then lastly, of course, the industry is heavily involved in many efforts to improve pipeline emergency response. And in particular, I wanted to mention the American Petroleum Institute's Recommended Practice 1174 which applies to liquid pipelines. I know that a lot of the discussion here is about gas, but 1174 applies to liquid pipelines and how pipeline companies can create essentially a culture of emergency response readiness.

Other resources to mention to you, and I hope that you'll investigate these at your leisure and as part of your investigations here. We have a

stakeholder communications website. There was mention, I believe, in a question and answer session information for various stakeholder audiences, whether it be emergency responders, local government officials excavators, whoever it might be. We've broken up communications resources by each of those stakeholder audience groups. Second one, there's a simple article that we've drafted on pipeline emergency response that provides the basics. Please use that if it would help.

The National Pipeline Mapping System, my guess is that you've talked about this in the past. The National Pipeline Mapping System is an online mapping application that we built at PHMSA. It shows the location of all of the natural gas transmission and hazardous liquid pipelines in the United States, except gathering lines and distribution pipelines. But it does show the 300,000 miles of transmission pipelines, the 180,000 miles of hazardous liquid pipelines in the U.S. along with breakout tanks and a couple of other geographic features. You can click on the line. You can get information about that pipeline, who operates it, what's running through that line, the emergency contact for that pipeline operator and a public awareness contact so that you can call

that company in a nonemergency and get more information.

Second to last bullet here, Pipeline Emergencies Training Curriculum, this is a training curriculum that we established with the National Association of State Fire Marshalls. It is an online, electronic e-book format training. It is extensive. It is thorough. It addresses everything from how pipelines operate in basic terms to what to do in very specific scenarios in emergencies. So it's an excellent resource. It's an award-winning resource. It's available for free online at www.pipelineemgerencies.com and we believe it is --- we promote it everywhere we go because it really is the definitive resource for pipeline emergencies training.

Call 811 Before You Dig. We're all well aware of the importance of that. We heard the last couple of speakers talk about hazard mitigation planning --- I'm sorry. Let me back up. I was talking about hazard mitigation planning, our first bullet. We have partnered with FEMA, the Federal Emergency Management Agency, to develop a primer for incorporating pipelines into hazard mitigation plans. We've got practices for land use planning and

development near pipelines, and then other guidance on how to incorporate pipelines into hazard mitigation plans so that those pipelines are considered risks in and of themselves, albeit small risks, but important risks to consider given the consequences of catastrophic pipeline incidents. So another resource that's available.

The Pipelines and Informed Planning Alliance, this is an organization of about 130 stakeholder groups that's focused on land use in the vicinity of pipelines. How do we at the local level prevent the --- or mitigate the potential impacts of a pipeline disaster, don't live near them, don't live on top of them, don't build homes directly, you know, in the path is one way to look at it. And if you do decide to build in those areas, do it wisely. You know, if you're going to build a Wal-Mart next to a pipeline right-of-way, put the parking lot near the pipeline and the building itself further away from the pipeline. Basic things like that. Even down to creating consultation zones, a buffer, around the pipeline to help local planners. Anytime a building permit comes in within that buffer zone along that right-of-way, you know, what kind of steps can you take, so ---.

The Emergency Response Guidebook. This is the little orange book that you see in firefighters and EMTs trucks, mostly in fire trucks. We produce this book and we've been including pipeline safety information in that book since the 2012 version and the 2016 version will be coming out shortly.

A Landowner's Guide to Pipeline Safety, the Pipeline Safety Trust based out of Washington State put together this Landowner's Guide using a grant from FMSA, and it is a tremendously good resource for local officials to learn about how to get engaged in pipeline safety issues.

Georgia has created a fantastic initiative called the Georgia Pipeline Emergency Response Initiative, or GPERI. They have --- the pipeline operators in Georgia have partnered with the fire training folks in Georgia to create a training program that is paid for by the pipeline operators, delivered by the firefighters to firefighters. This is what you're going to see in a pipeline emergency, this is where pipelines are, this is how you deal with those emergencies. We're institutionalizing pipeline safety in the emergency response community. The pipeline operators are paying firefighters to talk to firefighters. That gets to the trust issue that I

talked about earlier.

And then lastly, there's a video. This last bullet is a case study on Youtube of an incident in Lafayette, Indiana. It was a natural gas pipeline explosion. It was one of your typical odor of gas calls that really escalated and ended up in four homes being destroyed, no deaths, some injuries. But the case study, it's about a ten-minute long video and it's a very powerful tool when you're talking to your local emergency response officials to help them understand that not every pipeline emergency is the same. Just because it's an odor of gas call does not mean that you shouldn't be fully prepared for the worst possible consequences.

And the last couple of slides that I have, I'm just about done, these are just some basics of pipeline emergency response. It's things that a lot of us don't think about on a daily basis, but it's good information and I thought it may be relevant for you.

So signs of a pipeline leak or rupture, a hissing, roaring or explosive sound. A lot of folks will say they think it sounds like a jet taking off or a jet crashing. Flames appearing from the ground or from the water, perhaps very large flames. We've

heard from many communities in the event of a large pipeline emergency, that it looked like a plane had crashed and the emergency responders were operating under the assumption that it was a plane crash. In fact, it's a pipeline. A vapor cloud, a fog, a mist on the ground that shouldn't be there, pretty good sign of probably an HVL release from a pipeline, a highly volatile liquid release from a pipeline.

Dirt, debris or water blowing out of the ground, liquids bubbling up from the ground or bubbling in water. A distinctive odor of rotten eggs, skunk or petroleum, discolored or dead vegetation or discolored snow above the pipeline right-of-way or an oil slick or sheen on flowing or standing water. All of these may indicate a pipeline release.

And then just basics of response, these are things that we should all know, whether we're emergency responders or whether we are homeowners and live near pipelines and use the products that are transported through pipelines. First, get out of the area, move far away upwind and away from flames. If there are no flames present, don't create a spark, don't start a car, don't ring a doorbell, don't turn on a fan, don't use your telephone, don't do anything other than run.

Abandon equipment that's used in the area. If a pipeline's been struck by a backhoe, leave the backhoe there. Don't try to get the backhoe out of the area. Don't drive into vapor clouds if you see one, your vehicle can ignite the vapor cloud. Call 911 once you're at a safe distance and a safe area. Notify the pipeline operator if you can. And then as a firefighter, never attempt to extinguish a flame. If you see flames coming from a pipeline, never try to put those flames out before the supply has been shut off or you can have dangerous mixtures of gas and air building and can become explosive.

And lastly, never attempt to operate pipeline valves without the help of the pipeline operators. Operating a valve without the help of a pipeline operator can prolong an incident, it can worsen the incident. It's a technical process and pipeline operators are the only ones who are qualified to do that work. With that, I will wrap up and take questions, Mr. Secretary.

CHAIRMAN:

Thank you, Sam. Any questions for Sam? Looking around the room. All right. I am not seeing any. Sam, thank you very much for coming and sharing this with us today.

MR. HALL:

Thank you.

CHAIRMAN:

Next, our final presenter of the day will be our own Task Force member, Lauren Parker, talking about regulations and permitting of pipelines in Pennsylvania. Lauren, thank you.

MS. PARKER:

Good afternoon. I want to thank you, Secretary, for allowing me the chance to speak today. And I'm here to discuss some of the regulations Pennsylvania currently has, as well as the permitting process that is required in Pennsylvania.

I'm a civil engineer. I'm headquartered out of Pittsburgh, Pennsylvania. And each day I work on routing and siting of pipelines and helping the operators to prepare permit packages for submission to the Department, as well as almost on a daily basis working with Department staff to get through issues in the permits in order to get permits so that we can put the pipelines in the ground in an environmentally safe manner.

So the topics I'm going to cover today are Federal regulations, Pennsylvania regulations, Pennsylvania permitting, Federal permitting, and if

time permits, I'm going to try to go through some of the reference and existing guidance documents that Pennsylvania has.

So briefly on the Federal regulations is the Water Pollution Control Act of 1948. This was basically established just to reduce pollution. Then the Clean Water Act was enacted in 1972. And a lot of us probably learned in history class in the late '60s some rivers were actually catching on fire, that's when the Federal government decided there was something wrong happening in our country and enacted the Clean Water Act.

Then as part of that was Section 402, which established the National Pollutant Discharge Elimination System. And this is --- it regulates the storm water runoff from construction activities. However, the Energy Policy Act of 2005, which was published as final rule in 2006, actually exempted oil and gas activities from the NPDES program. We'll go into more about the local State regulations that kind of happened as a result of that. But the final two are Section 106 of the National Historic Preservation Act as well as the Endangered Species Act. So what we do here has to comply with all of these Federal regulations.

So when it comes to Pennsylvania, as part of the Title 25 of the Pennsylvania Code, we have Chapter 102, which is for erosion, sediment control and storm water management, Chapter 105, which is for stream and other waterway impacts, the Clean Streams Law, which basically is just to not allow pollution into the streams and Act 167, which I'll go into further detail on all of these, covers storm water mainly. So some other obligations are the Submerged Lands License Agreement, again Threatened and Endangered Species Clearances as well as the PHMC Clearance.

So Act 167, I'm just going to read what I have written up here. But this is Pennsylvania's Storm Water Management Act and it was enacted in 1978. This Act was in response to the impacts of accelerated storm water runoff resulting from land development in the State. And it requires counties to prepare and adopt watershed-based storm water management plans. And it also requires the local municipalities to adopt and implement these ordinances. This DEP fact sheet, if anyone wants more information, is available up on the Department's website.

So just so show an example. This is Pine Creek Watershed in Alleghany County. So the

County would look at a watershed basis and pick different areas where perhaps there's been flooding issues or other degradation of stream banks due to accelerated storm water. So the specific example we're looking at here, it's number 69 and then you refer to a chart, it's in Richland Township. And they actually require a 65 percent reduction of the storm water coming off of your site after you develop it from the pre-development conditions. So how this impacts the pipeline industry is anytime you add gravel surfaces or other impervious surfaces, you would have to comply with these Act 167 plans with regard to storm water runoff from your gravel or your other impervious surfaces.

The Submerged Land License Agreement. Submerged lands of Pennsylvania are any waters and permanently or periodically inundated lands owned by the State. This includes lands in the beds of navigable lakes and rivers and beds of streams declared public highways that are owned and held in trust by the State. So the Submerged Lands License are required when an applicant applies for a Chapter 105 permit to occupy submerged lands of the State. So I guess to make this more simple, if the pipeline company has to cross a stream that could be considered

navigable water, they're boring it or open cutting it, the State says they own that land under the stream and you must get a license with the State to put that pipeline there.

So here's a copy of the agreement. It actually goes through Harrisburg and must be approved by the Governor's Office. This just highlights there's actually an annual fee that must be paid by the operator to the State on an annual basis for perpetuity as long as the pipeline's in place. The minimum is $750, but it can be larger depending on the amount of land you're taking up underneath the stream. Like I said, this is approved by the Governor's Office, but then it's ultimately signed by the pipeline operator as well as this one was signed by Ken Murrin who works with the Department.

So the next obligation is the EPHMC clearance. So when there is a Federal nexus or a Federal permitting aspect of the project, you would have to comply with Section 106. And I will say that even if you aren't getting a Federal permit you still can't go against the requirements of the Federal regulations for 106. But in this instance, when there is a Federal permit required, the operator has to go out and typically they would only look in areas ---

the area of potential effect, which should be 100 feet from the top of the stream banks as well as 100 feet from each well crossing.

They would do shovel tests pits, which is what this photo is showing. They would prepare a phase one archeological report. This is just the table of contents for a typical report. It has a lot of information about the environmental setting, any previous information that could be found in a record as well as all of the research, a lot of photos, mapping and figures of what they found.

This is just an example of a map that would have been prepared that highlights all the different areas along the pipeline route where the cultural resource crew looked and did shovel tests pits to see if there was anything of concern. So they submit that to PHMC who reviews and responds. This is an example of a response letter from PHMC, and the copy of that letter is required as part of the permit package in order to get the permit approved.

So moving on to something that actually is more what I do is the ESCGP-2 which is --- this is what the State has enacted since natural gas is --- or oil and gas operations are exempt from the NPDES program, Pennsylvania has enacted the ESCGP-2 program

which does regulate the construction activities associated with natural gas projects. So ESCGP-1 was the first version of the permit which came out in 2008. Then in 25 Pa. Code Chapter 102, which as I said earlier regulates erosion, sediment control and storm water management, it was revised in November 19th of 2010. So then the Department updated the ESCGP, came out with the second version that was enacted in 2013.

Basically, my personal opinion is the ESCGP-2 is just about equivalent if not exactly equivalent to standard NPDES permit which you would receive for a land development project or any other type of earth disturbance.

So I'm just going to run through the requirements for an ESCGP-2 permit just so you have an understanding of all the items that go into this. I apologize, you can’t see this. Hopefully if you printed it out, you can read it a little bit better.

But there is an erosion, sediment control report that is required and plans. It includes topographic features, soil characteristics, descriptions of the earth disturbance activity, a discussion of the project site runoff, a surface water classification which can found on Chapter 93 to

discuss what streams they're discharging to, what their designation is, if they have any impairments as well as a description of the E&S BMPs they're proposing to use.

Further, it goes into you have to have a written description of how you plan to install your BMPs on the site and provide all of your support and calculations and measurements. On the plan drawings themselves, you need to have a maintenance program for how you're going to take care of your E&S BMPs after storm events. And material recycling disposal methods, any soil conditions that are on your site and geologic formations that could cause pollution such as landslide prone soils, coal that could be outcropping on your site, thermal impacts, a discussion just on, you know, how your project could be causing thermal impacts. And then you have to approve that your E&S plan and PCSM plan are consistent.

There is a discussion on the Riparian forest buffers, so whenever you're crossing streams or getting too close to streams that might be high quality or special protection, the forest buffers are regulated so you have to have proof as to why that can't be avoided. And there is a written, I guess, guidance for how to do that in 102.14. As well

depending on what watershed you're in, you may have to provide anti-degradation analysis. Then there's a permit filing fee, which is $500 plus $100 per acre of disturbance. So that number can get large for a larger pipeline.

There's municipal notifications that are required. You have to notify the municipality you're in as well as the county that you will be submitting for a permit. Your PNDI again. Then your PCSM plans have very similar information, topographic features, soil characteristics, a discussion on the change and the net volume of storm water runoff as well as the peak rate of storm water runoff caused by your project.

And service water classifications, a description of the post-construction storm water best management practices that you're proposing to use on your project and a narrative on how you plan to install said BMPs as well as all of your supporting calculations. Long-term operation and maintenance schedule, again, after you walk away from the project and you have BMPs in place to control storm water, there has to be a schedule for when you're going to maintain these BMPs, how you're going to maintain them and who will keep them operating as the project stays

in existence.

Again, geologic formations, thermal impacts, repairing forest buffers and anti-degradation. So in the storm water report itself, you have to provide a lot of information on the volume reduction and water qualify requirements, which are dictated in 102.8 or in the Act 167 Plan if you are in an Act 167 area. Not all counties have created one of those yet. And provide, you know, your methodology of how you came to your calculations, how you prepared your calculations and how you came to results as well as construction techniques.

Then it does go through some questions about the expedited process. So for the ESCGP-2, if you're not in a special protection watershed, you can get what is called an expedited process. And what this means is that the DEP staff have 14 business days to complete a technical review of your project. If you are in a special protection watershed, the Department staff have 43 business days to review your permit package. So then it goes through a couple other questions about ensuring that you have preparedness prevention and contingency plan on site. If there's any subsequent phases or if you're going for a permanent renewal.

So I think you can see from this, this is just the checklist and then you actually have to have all these other documents included in your submission. So I'll just hit a couple of these briefly. Site location and soils map are pretty basic. I think we probably can understand what a site location map looks like. It's on a USGS map, just and 8-and-a-half by 11. The soils map shows the different soil characteristics, where were mapped by the USDA a number of years ago.

Again, the Act 14 notification, notifying the local municipality and county that you're applying for a permit, you include a copy of the notice of intent permit application as well as a copy of the drawings. And you must provide a copy of the certified mail receipt with your submission to the Department.

Additionally, you have to provide a copy of your PNDI. This example that I've included here shows you the pink is where I would have gone into the program, and you can actually draw a polyline that would encompass your pipeline corridor. You answer a number of questions and it pops back this receipt. For those of you that haven't seen this before, this particular project we got a hit for both the

Pennsylvania Game Commission as well as the US Fish and Wildlife, and it was for the Indiana Bat which is the photo that I have shown up top.

So what we had to do on this project was send in a certified bat survey crew out in the field to do a habitat assessment. They prepared a large report that was submitted to the US Fish and Wildlife Service documenting what they found. US Fish and Wildlife approved that, and what we ended up having to do is we paid an in lieu fee for clearing up the trees. And they had to pay it to the tune of $60,000 for the trees that they cut down into the Indian Bat Conservation Fund. So then we received a clearance letter from both the Game Commission and Fish and Wildlife that we included with our permit package.

So the erosion and sediment control report, which I hit on some of the items that were required in the checklist. But this just kind of goes into it a bit further. So again, this is kind of what we would typically provide for the soils information. You list each soil and some of the limiting factors of each soil type that you cross, as well as some resolutions on how to handle that during construction.

This is a list of the receiving waters, the designation of secondary water. And the main

thing for this permit is siltation impairment because we're dealing with erosion and sediment control we don't want to increase any sediment leaving our site that could possibly impair the stream further than it already is. So there's additional BMPs that are required for siltation and impaired watersheds.

This is an example of the description I would give for the BMPs we're using. This one is a compass filler socks. You give a written narrative on the sock, how you would maintain it, how it should properly be installed. This is a typical example of geologic formation narrative that I would give. We use our geotechnical engineers in house that can do geologic research of a number of different old mine mapping information, coal maps, landslide prone soil mapping that was done.

Then on the storm water report, it's very similar except this one you have to go into discussion on your hydrologic methodology as well as the rainfall data that you're utilizing. A lot of municipalities have rainfall data that they would like you to use depending on the storm, but you can get that information also off of the NOAA website. Got another description on the soil types. And for storm water that is impactful because certain soils will

infiltrate more water than other soils, so it's important that consideration be given to the types of soils you're working with.

You have to give, you know, a narrative and tables listing your predevelopment runoff from your site post-development, and then all the calculations to back up all this information is included in the back of the report. And then a sequence for how you're going to put in your best management practices at the end of construction, as well as the maintenance program for regularly inspecting and, you know, should you mow the grass in the BMP, should you not mow the grass, do you need to remove leaves, different things like that.

There's also an infiltration analysis narrative that's required. You have to do onsite testing, and I'll hit that a little bit later. Then the plans that are required, this is an example of an erosion and sediment control plan that would be included with the permit package. It shows an aerial photo in the back as well s topographic contours. Roads, you always have to have any other existing features of those existing pipelines in the area, existing roads where homes are, property lines.

So just a blow up of this, you can see

we show exactly where all of the different BMPs we're going to use, water bars and trench plugs as well as stationing along the pipeline, rock construction entrances. So these are detailed plans that have calculations to back up where the placement of all these BMPs are included. And then post-construction storm water management plan looks pretty similar to that except, again, where we would have gravel or impervious surfaces we would show our best management practices related to storm water.

Moving on to the Chapter 105 permits, which covers a stream and wetlands. There are a number of permits, which you can see in the application on the right-hand side, 15 to be exact. However, the ones I've list on the left-hand side are the ones that are typically used by this industry. GP-3 bank rehabilitation, bank protection and gravel. This permit is used typically if a pipeline has been installed and then after the fact maybe the bank is having some issues in a stream crossing getting established. You would get this permit to kind of go in and fix things back up.

I personally have never had to get one of those permits, to be honest. I typically get a GP-5, a GP-7 or a GP-8 and occasionally a GP-11. If

you're using an existing access road that has an existing culvert that might not be able to handle the traffic load from some of the trucks that are bringing the pipe in, you would want to replace that pipe and you could get a GP-11 for that.

So this is an example of a permit drawing that we would submit for our stream and wetland crossings. This just blows it up a bit on the right-hand side, but you can see that there's a plan view of the crossing, a table that shows, you know, where it's draining to, what the stream is, your impacts both temporary and permanent, lat and longitude so that it can be found exactly. As well as a cross section of where the pipeline is crossing, where you have exact information from biologists that go out and measure the depth of water in the channel, the top of bank height and various other things like that.

So just to show you, that right there --- which again, is hard to see if you're looking at the screen, but that's where the pipeline is crossing the stream and that's where we would obtain a GP-5 for the utility line stream crossing. So that permit just permits the pipeline itself being put through the stream either via a bore or through an open cut.

Which I will note too that open cut is the stream bed is dry almost always when we put these pipelines through either via a pump around, wet trenching doesn't typically happen in Pennsylvania. Even though I do think that on some projects, as I look at you, sometimes that might be possible due to a variety of reasons where it's just not feasible to do a dry cut.

This location, I've noted, is where we have timber mats showing. So this would be the GP-8 temporary road crossing. So you put timber mats across the stream to allow construction equipment to go back and forth. And I want to note on this particular area that we're looking, the two areas I've highlighted, you'll note the right-of-way is the heavy, dark, black line and we've necked the right-of-way down to avoid the --- there's wetlands on the topside that we're avoiding and there's also a stream crossing. We've narrowed the right-of-way down to try to limit the impacts to the stream. And this is typical for all stream and wetland crossings where the right-of-way is necked down and reduced from, let's say, 75 feet reduced down to 50 foot or reduced down to 40 foot, sometimes less than that. Typically, what's just required to trench the pipe through and have equipment crossing safely.

So some of the typical requirements for a general permit registration are project descriptions, Act 14 notifications, location map, photographs, the plans I just went over, a copy of the E&S control plan and a wetland delineation report.

There are some conditions when these permits are not applicable, that would be if the water resource is considered exceptional value. So this is Pennsylvania's e-map program where you can find a number of things in here, but this particular screen shot is showing, when you zoom in close enough, you can see all of the streams in the program. And it's hard to tell, too, but they're different colors. So there's a legend on the left-hand side and you can see if it's a cold water fish, an exception value, high quality. So, for example, this particular stream was an exceptional value stream, so this is where we have to go to check to see what type of stream or crossing, and that will dictate the type of permit that we have to get.

Some other times when a general permit's not applicable is if you're crossing a wetland that is more than ten acres in size or if there's a historic cultural or archeological site present. So when you can’t get the GP, you have to move into an individual

permit which is water obstruction and encroachment joint permit. And this is authorized by both the Department of Environmental Protection as well as the US Army Corps. It has some additional requirements over and above what the general permit requires such as an alternative analysis, a public notice, a risk assessment as well as a seal by a professional engineer.

So moving on to the Federal permitting of the stream and wetland crossings, the Nationwide Permit 12 was suspended in Pennsylvania and the PASPGP, which we refer to it as the Federal --- is the replacement for the Federal Permit. And it's designated to coordinate with the Department. So there's a level of review determined by the category of the impact. So if it's a category one impact, which is thresholds associated with these impacts, the Department can authorize and include the Army Corps Authorization. If it's a category three impact, the Department and the Army Corps must review the projects independently and both provide an approval or authorization for it.

So this a copy of what the Army Corps would issue for the PASPGP-4 authorization. And I think it's worth noting that as part of the Corps

authorization it does require a 30-day after construction as well as a one-year or after the first full growing season of post-construction monitoring report to be submitted to the Army Corps to show that the stream and wetlands have come back to their preexisting conditions. So, Mr. Secretary, do you want me to keep going because I can flip through these really quick? I don't know.

CHAIRMAN:

Quick would be great.

MS. PARKER:

Okay. Good. Okay. So we'll just run through these really super quick. So some references that are already in existence in Pennsylvania is the E&S manual. And the E&S manual, I thought it was worth mentioning. I was going to lug it along with me, but it's too large. The E&S manual is actually 583 pages in length so it provides a lot of information on a variety of BMPs that should be used to control erosion and sediment coming off of a site.

The Pennsylvania Storm Water Best Management Practices Manual is 487 pages, that's not counting the appendixes, which were included. And this talks about a number of how you should design your site, different best management practices for

controlling storm water runoff for detention basins or rain gardens, a variety of other items.

There's also a utility line construction manual which is --- I put some asterisks there because it's a little bit outdated now. It would probably be wise, I think, and helpful maybe as a BMP that my Workgroup could recommend is to come out with a new manual like that specifically for utility line construction. So I'll flip through these, but I had some pictures. If you have the presentation, which I guess all of you do, you can flip through these. But these are just some of the BMPs that are typically used.

I will note the infiltration testing is something that takes a lot of time to do. You have to go out to the site with an excavator, dig test pits, determine where the depth of bedrock is, determine if there's a seasonal high groundwater table. And this is all required prior to designing any of your storm water BMPs to determine if you're actually going to be able to infiltrate some of your storm water runoff on the site and how those are going to function. That's it. Any questions?

CHAIRMAN:

Questions? There is going to be a test,

by the way. You can't leave until you write an essay on the various permitting tools. Any questions for Lauren?

MR. GALLAGHER:

Lauren, Anthony Gallagher. Just out of curiosity, from the time a company wants to start a pipeline and start the process to probably the average time of the permitting process, what's roughly the average time it takes?

MS. PARKER:

To just from when I submit the permit to the Department to when I get it?

MR. GALLAGHER:

Uh-huh (yes).

MS. PARKER:

Well, it depends really on where you're at in the State. I would say for ESCGP-2 in the North Central part of the State, it probably takes two to three months. In the Southwestern part of the State it takes at least six months. 105 permits vary also. Again, probably three months is an average. A joint permit would definitely be --- others can chime in here, at least I would say six to nine months to get a joint permit.

And that's just you've submitted the

full permit package for them to review it. There's always some back and forth to try to make sure things are correct with the Department to actually get your permit in hand.

MR. GALLAGHER:

Okay.

MS. SCHWARTZ:

I just wanted to briefly add that if you're in certain zones along the Delaware River and Lake Erie, you need a coastal zone management plan in addition to everything Lauren outlined. And also in certain areas of the State there may be environmental justice considerations.

MS. PARKER:

Thank you.

CHAIRMAN:

Serena.

MS. BELLOW:

Very quickly. Lauren, thank you for putting in a word about cultural resource in Section 106, I always appreciate that. I wanted to add to that, though, that you will also have to submit documentation to PHMC, to my office, if you are just getting State permits as well. Under the Pennsylvania State History Code, we have review authority for DEP's

permits as well.

So while Federal permitting is definitely a stronger law and more robust process in many ways, I just wanted to clarify that unfortunately State law comes into play as well. And also to mention, you had pictures of some diligent archeologists doing their backbreaking work out there. I'm not an archeologist, you can tell. But to just clarify that this also looks at above ground potential impact, so we would be looking at impacts to historic communities, historic downtowns, even in some rare cases historic landscapes as well. So just to clarify before anybody gets upset if they get a kind of letter from my office.

MS. PARKER:

Right. I was going to say, I had to somewhat limit my presentation yesterday, so one of my colleagues said, well, you should probably put in there about the viewshed because we've gotten a lot of comments about affecting the viewshed of an old farmstead where a pipeline was going through. So, yes, we go through ---.

MS. BELLEW:

Give me a call, we can talk about it.

MS. PARKER:

Okay.

CHAIRMAN:

Other questions for Lauren. Representative.

MR. KELLER:

Thank you, Mr. Secretary. One question, Anthony asked you about the length of a permit and you answered the North Central and Southwest. I'm very parochial, how about the Southeast?

MS. PARKER:

Well, actually, for the oil and gas permits, it's split up into three districts. So there's a Southwest, Northwest and North Central. And North Central covers the center of the State, pretty much, and the entire Eastern half.

MR. KELLER:

So that would be the Southeast?

MS. PARKER:

So that would be the Southeast as well. And that's out of Williamsport.

MR. KELLER:

Thank you.

MS. PARKER:

Yep. You're welcome.

CHAIRMAN:

Other questions? Seeing none, Lauren, thank you very much. Just for the benefit of the members of the Task Force for future reference, October 28th will be the last meeting where we have presentations. Then we get to work. The presentations, we'll have three presentations on October 28th. First, will be integration, coordination and permitting between State and Federal agencies with a cast of thousands that you see listed there on your agenda. And then voluntary best practices, managing operational risk and protecting significant historic and cultural resources by a group called Leaders in Energy and Preservation, LEAP, which was formerly the Gas and Preservation Partnership. And finally, a presentation from the Greater Philadelphia Energy Action Team. So that will round out the presentations for the Task Force, and then we'll get to work on writing.

We're now in the discussion portion of the agenda, anything on anyone's mind among the Task Force members? All right. We are going to do that quiz on Lauren's presentation. Terry.

MR. BOSSERT:

Mr. Secretary, I just think we need to point out that Davitt and I didn't have to read about

the Cuyahoga River in the history books, we were actually alive, so ---.

CHAIRMAN:

Anything else from the Task Force. Okay. Seeing none, the next section is public comment. Are there any --- is there anyone in the audience that would like to provide public comment, please raise your hand. All right. What we'd ask you to do is step to the podium, identify yourself, where you're from, any group that you might be representing. And what we will ask you to do is limit your comments to three minutes.

MS. WALSH:

Hi, my name is Julia Walsh. I'm from Frack Action and I'm here with a group so we were hoping to take a few extra minutes. I'll be speaking on behalf of the group. I'm the campaign direction of Frack Action, a New York-based organization. And for years we've been working with residents impacted by fracking in Northeast and Southwest Pennsylvania. And we've been able to assist when possible to deliver clean drinking water to residents in Dimock, PA and Susquehanna County. I'm joined here today by representatives, some Bucks County concerned citizens, Delaware River Keeper, Food and Water Watch and the

youth organization, Earth Guardians.

We have come to this meeting to give to you, DEP Secretary John Quigley, a group letter that we would like to ask you to deliver to Governor Wolf. This letter is from 115 community-based environmental organizations, and I quote from the letter, fighting and harmed by the massive expansion of gas infrastructure throughout the Northeast and Mid-Atlantic regions of the United States being driven by Shale Gas extraction in the Commonwealth of Pennsylvania. This coalition of groups from Pennsylvania, New York, New Jersey, Maryland, Connecticut, Massachusetts and New Hampshire signed on to this letter to call on Governor Wolf to shut down this Pipeline Task Force, immediately enact a moratorium on fracking in Pennsylvania and help the people of Pennsylvania suffering adverse public health impacts from fracking.

Secretary Quigley, you were right to say at the beginning of the meeting that there is public angst around fracking and its infrastructure, for good reason. Our angst is based on the reality of what the science is telling us, which now includes over 550 peer reviewed scientific studies overwhelmingly showing harm to public health and safety and the

environment.

This angst is also driven by the reality of what state governments are doing just to the north and south of Pennsylvania. If you look just over the border to the north, New York has banned fracking outright after our Commissioner from the Department of Public Health conducted a health review in which he, a recognized and respected doctor, said he would never let his family live near a fracking well. And if you look to the south of your border to Maryland where the State legislature urged by nurses, doctors and health professionals passed a moratorium on fracking, and the sitting Republican Governor Hogan let it pass into law.

I would like to also note the reality that each of these states directly bordering Pennsylvania passed bans and moratoriums after elected officials came to see fracking firsthand in Pennsylvania, to meet Pennsylvanians with contaminated water, nose bleeds, skin rashes, vomiting and illnesses from water that was once safe to drink and air that was once safe to breathe. What you and Governor Wolf have done here is a mockery to their suffering.

For this administration to sit around a

table with the very same corporations that are poisoning your citizens and hear from consulting firms that are here to give presentations about how these corporations can better gain public acceptance and use social media, as Bravo Group did here today, is a travesty.

This letter and those 115 organizations are living with the reality of a crisis stemming from fracking in PA and its related infrastructure that this Task Force is commissioned to facilitate. We are backed and supported by State and Local elected officials, health professionals, experts from their fields and scientists that a massive build out of frack gas infrastructure will lock us into decades of fracked gas at a time when our global climate is dependent on a full scale swift transition to renewable energy. And that is not only our message, but the message of the Pope who will be arriving here in a few short days.

Secretary Quigley and members of this Task Force who work for the Commonwealth of Pennsylvania, we are asking you to please listen to the science and the hundreds of thousands of people represented in this letter from throughout the Northeast, shut down this Task Force, enact an

immediate moratorium on fracking in Pennsylvania and help Pennsylvanians who are suffering health impacts from fracking. And I'll just close by saying that all of our groups in the Northeast will not stop working in solidarity with our friends and neighbors in Pennsylvania until these demands are met. Thank you.

CHAIRMAN:

Thank you.

MS. WALSH:

We have the Earth Guardian who will give you the letter, and I'll pass out a few letters to those in the Task Force from the State.

CHAIRMAN:

Okay. Thank you. Is there anyone else in the audience that would like to be heard? I'm not seeing anybody. Is there anything else for the good of the Order? All right. Our next meeting will be on October 28th at 1:00 p.m. Thank you all very much. We're adjourned.

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HEARING CONCLUDED

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CERTIFICATE

I hereby certify that the foregoing proceedings, hearing held before Chairman Quigley was reported by me on 9/23/15 and that I, Bernadette M. Black, read this transcript, and that I attest that this transcript is a true and accurate record of the proceeding.

Bernadette M. Black

Bernadette M. Black,
Court Reporter