

1 STATE OF NEW HAMPSHIRE
2 SITE EVALUATION COMMITTEE

3
4 June 20, 2017 - 1:48 p.m. DAY 18
5 49 Donovan Street Afternoon Session ONLY
6 Concord, New Hampshire

7 {Electronically filed with SEC on 07-05-17}

8 IN RE: SEC DOCKET NO. 2015-06
9 Joint Application of Northern
10 Pass Transmission, LLC, and
11 Public Service Company of
12 New Hampshire d/b/a Eversource
13 Energy for a Certificate
14 of Site and Facility.
15 (Hearing on the merits)

16 PRESENT FOR SUBCOMMITTEE/SITE EVALUATION COMMITTEE:
17 Chrmn. Martin P. Honigberg Public Utilities Comm.
18 (Presiding as Presiding Officer)

19 Cmsr. Kathryn M. Bailey Public Utilities Comm.
20 Dir. Craig Wright, Designee Dept. of Environ. Serv.
21 Christopher Way, Designee Dept. of Resources &
22 Economic Development
23 William Oldenburg, Designee Dept. of Transportation
24 Patricia Weathersby Public Member
Rachel (Whitaker) Dandeneau Alternate Public Member

ALSO PRESENT FOR THE SEC:

Michael J. Iacopino, Esq., Counsel to the SEC
(Brennan, Caron, Lenehan & Iacopino)
Pamela G. Monroe, SEC Administrator

(No Appearances Taken)

COURT REPORTER: Susan J. Robidas, NH LCR No. 44

I N D E X

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2			
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4		ROBERT VARNEY	
5		LEE CARBONNEAU	
6		SARAH BARNUM	
		JACOB TINUS	
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1 AFTERNOON SESSION

2 (Hearing resumed at 1:48 p.m.)

3 CHAIRMAN HONIGBERG: All right.

4 Ms. Pastoriza, are you ready to go?

5 MS. PASTORIZA: I'm ready.

6 CHAIRMAN HONIGBERG: You may
7 proceed.

8 CROSS-EXAMINATION

9 BY MS. PASTORIZA:

10 Q. So this is a question for Mr. Tinus.

11 MS. PASTORIZA: Can you put on
12 Apple TV?

13 MS. FILLMORE: Dawn, can you try
14 again, please? Having technical difficulty.
15 It says, "Unable to connect. Network signal is
16 too weak."

17 CHAIRMAN HONIGBERG: All right.
18 Let's go off the record for a second.

19 (Discussion off the record)

20 CHAIRMAN HONIGBERG: All right.

21 Ms. Pastoriza, you may proceed.

22 BY MS. PASTORIZA:

23 Q. So, Mr. Tinus, Photo 1, I'll represent to you
24 that this photograph was taken last summer on

1 Route 116, Easton, and shows an uncovered
2 slurry tub and an open bore hole. It was
3 left overnight on the side of the road.
4 Assuming these representations are accurate,
5 does that conform with the BMPs?

6 A. (Tinus) It looks as though they have a
7 tankful of slurry as you noted and then
8 there's some straw waddles around it. But
9 those are the typical type of BMP we would
10 use.

11 Q. It's typical to leave an open slurry tub
12 overnight by the side of the road?

13 A. (Tinus) You didn't ask that. You asked if it
14 was typical. I was looking at the straw
15 waddle, and presumably that's the downstream
16 side. It's hard to tell from a photo the
17 angle, obviously, but... is there another
18 question, I guess?

19 CHAIRMAN HONIGBERG: Mr. Tinus,
20 can you move your microphone closer to your
21 mouth so that when you turn your head right and
22 left we don't lose you?

23 WITNESS TINUS: Sure.

24 BY MS. PASTORIZA:

1 Q. I'll ask the question again. Is it Best
2 Management Practices to leave an open slurry
3 tub and an open casing on a bore hole
4 overnight without an addition of
5 bentonite-specific silt fence?

6 A. (Tinus) I've never seen this done before.

7 Q. Is it Best Management Practices?

8 A. I would probably say not.

9 Q. Okay. Photo No. 2, I'll represent to you
10 that this is ACCU-VIS slurry additive that
11 was dumped or spilled next to a Northern Pass
12 drilling site in the White Mountain National
13 Forest on the side of the road and it was
14 covered with hay.

15 CHAIRMAN HONIGBERG: Just for
16 purposes of this question, Mr. Tinus, and maybe
17 the subsequent questions, assume what Ms.
18 Pastoriza is saying is true. You don't --
19 we're not saying for sure that it is. But just
20 purposes of these questions, assume that it's
21 true.

22 WITNESS TINUS: Understood.

23 BY MS. PASTORIZA:

24 Q. ACCU-VIS contains acrylamide, a male

1 reproductive toxin, developmental toxin, and
2 is carcinogenic. The site was 4 feet by 5
3 feet. It was unposted with any Material
4 Safety Data Sheets. Is this BMP?

5 A. (Tinus) Is this BMP what?

6 Q. Is leaving spilled ACCU-VIS slurry and
7 covering it up with hay and not cleaning it
8 up and not putting a Materials Safety Data
9 Sheet at the site to let people know what is
10 there, is that Best Management Practices?

11 A. (Tinus) I think cleaning up is part of good
12 housekeeping measures that should be
13 followed. As far as leaving an MSDS sheet at
14 the site, I've never seen that done before.

15 Q. So, leaving this ACCU-VIS slurry at the site
16 is not Best Management Practices?

17 A. (Tinus) In my mind, that should have been
18 cleaned up.

19 Q. So it's not Best Management Practices.

20 A. (Tinus) I guess, yes, I would agree with
21 that.

22 Q. Okay. Photo No. 3, this is... zooming. This
23 is an S.W. Cole employee straddling -- well,
24 standing on either side of the slurry tub,

1 leaving a bunch of five-gallon buckets full
2 of slurry, with a sagging, poorly-staked silt
3 fence ready to funnel the spilled slurry into
4 the stream if someone happens to knock it
5 over. Is this considered Best Management
6 Practices?

7 A. (Tinus) I can't actually see the condition of
8 the silt fence, so I can't comment on that.
9 I don't know where those hoses are leading,
10 to be honest with you. So it's hard to
11 comment on this. I would take issue with the
12 gentleman standing on the bucket.

13 Q. Is it Best Management Practices to leave open
14 five-gallon buckets of slurry where, if they
15 tip over, they will flow down into a stream?

16 A. (Tinus) Well, if they're using the material,
17 you know, they'd have to have it at the
18 ready, I presume, and then they would take it
19 away. But there's so many things that could
20 be drawn from a photo like this. I mean, I
21 don't...

22 Q. What they do with the slurry is, in the
23 drill, as they shovel out the solids from the
24 bottom of the tub, they put them into those

1 buckets. Normally if you're doing the job
2 properly, you have a slurry recycling tank
3 which filters all this stuff out and keeps it
4 contained and goes off site. In this case,
5 they were shoveling slurry from the tub into
6 those buckets in anticipation of how they
7 were going to get rid of it. So that's what
8 that slurry is in the buckets for. It's not
9 awaiting being used.

10 A. (Tinus) Did they take it away?

11 Q. Yes, they took it away.

12 A. (Tinus) Okay. I don't... is there another
13 question about this?

14 Q. Is that Best Management Practices?

15 A. (Tinus) In general, the things that I noted,
16 it's inconclusive to me.

17 Q. So we can expect in the future that Northern
18 Pass may leave some five-gallon buckets full
19 of slurry in a stream bed, and that will be
20 something we can't report because it's
21 appropriate?

22 A. (Tinus) I don't think that's a good practice
23 that anybody would want to see happen, no,
24 and I don't think Eversource would allow that

1 either with the monitoring that's going to
2 take place with the Project going forward.

3 Q. So is it okay then, but it's not going to be
4 okay later?

5 A. (Tinus) I don't know anything about where
6 this photo was taken or much about the issue
7 other than what you're stating, so it's -- I
8 can't come to any other conclusions other
9 than what I just said.

10 Q. So, Photo No. 4, it's a little bit later.
11 Same drilling site. It's a Northern Pass
12 inspector in orange looking on while the S.W.
13 Cole employees load up those five-gallon
14 buckets into the back of their open pickup
15 truck. They also drained and then loaded up
16 and refilled the slurry bucket. That was all
17 driven out without any kind of covering
18 through White Mountain National Forest. Is
19 that Best Management Practices?

20 A. (Tinus) I would assume the buckets should
21 have been covered. Had I been the
22 environmental monitor, I would have made sure
23 they were covered.

24 Q. So it's not Best Management Practices.

1 A. (Tinus) Well, not knowing, not seeing an
2 active video of the truck pulling way with
3 buckets in it, and assuming that what you're
4 saying is what happened, I would agree.

5 Q. Photo 6. So this is a Northern Pass
6 contractor. What he has is equivalent of a
7 slurry tub. That's just a different kind of
8 slurry tub. Slurry and the tailings are
9 being knocked and scraped out onto the ground
10 before being hosed into the undergrowth,
11 which they spent several minutes doing.

12 Is that Best Management Practices to
13 dump your slurry tailings from your tub onto
14 the ground and hosing it into the
15 undergrowth, especially near a water supply
16 and a stream?

17 A. (Tinus) That shouldn't be directly discharged
18 to a water supply or a stream or a wetland.
19 However, it can be done into an upland area.
20 So it's hard to tell where those resources
21 are located from this photo.

22 Q. Do you not need a permit from White Mountain
23 National Forest, where this was, to discharge
24 slurry into an upland, which it wasn't?

1 A. (Tinus) I believe they had the proper
2 permissions to do the work through the White
3 Mountain National Forest.

4 Q. Is it appropriate and Best Management
5 Practices to dump slurry that contains
6 ACCU-VIS, which is carcinogenic, on the side
7 of the road and hose it.

8 A. (Tinus) I can't say. I don't know enough
9 about this particular part of the operation,
10 to be honest with you.

11 MS. PASTORIZA: That's the end
12 of my questions. Thank you.

13 CHAIRMAN HONIGBERG: All right.
14 Mr. Palmer, then I think we're going to return
15 to your group. And I guess Mr. Lakes is going
16 to pick up with the questioning?

17 MR. PALMER: Yes, that's right.

18 CHAIRMAN HONIGBERG: Mr. Lakes,
19 are you going to work from back there or come
20 up here? Okay. Change in plans.

21 MS. MEYER: Yes, change in
22 plans. Barbara Meyer. I'd like to go in
23 advance of Carl Lakes.

24 CHAIRMAN HONIGBERG: Okay. You

1 all can see Ms. Meyer from the witness bench?

2 All right. You may proceed.

3 CROSS-EXAMINATION

4 BY MS. MEYER:

5 Q. Okay. By way of introduction to the Panel --

6 CHAIRMAN HONIGBERG: You're
7 going to need to introduce yourself into the
8 microphone.

9 BY MS. MEYER:

10 Q. Okay. By way of introduction to the Panel,
11 I'm Barbara Meyer. I live on 116 in Easton,
12 so I'm a member of the Abutting Property
13 Owners, Bethlehem to Plymouth Group, and so
14 my questions will focus on the underground
15 portion of the route.

16 Let's see. First of all, I wanted to
17 ask how many wells there are in close
18 proximity to the underground route. And you
19 can pick your own definition of what's "close
20 proximity." You know, is it 200 feet? Is it
21 50 feet? What numbers are you working with?

22 A. (Tinus) I don't know, off the top of my head,
23 the exact number.

24 Q. Do you agree that in general it would be

1 better to have fewer rather than more wells
2 in close proximity to the route from an
3 environmental standpoint, a water-quality
4 standpoint?

5 A. (Tinus) In terms of what? Just by location?

6 Q. Yes. Would it be better to have fewer wells
7 along your route or more wells along the
8 route?

9 A. (Tinus) I really don't have an answer for
10 that. They are where they're at and the
11 roads where it's at.

12 Q. If you're concerned about water-quality
13 impact from the construction project,
14 wouldn't you, just by definition, rather see
15 fewer wells than more?

16 A. (Tinus) Well, I think the Project needs to --
17 and we are aware of where the wells are and
18 other utilities. So, to the extent they
19 cause complications with construction, that's
20 all part of, you know, understanding what
21 they're doing. And so it adds complexity. I
22 think that's what you're getting at.

23 Q. Well, another thing I'm getting at is the
24 potential for something going wrong, damage

1 occurring to the well either in terms of the
2 water quality, the structure of the well
3 itself. I mean, wouldn't it be prudent
4 avoidance to choose a route that has fewer
5 wells rather than more?

6 A. (Tinus) Well, I think as Lee and others have
7 stated, I mean, siting the Project is an
8 acknowledgment of trying to find, you know,
9 the location for the facility in the road
10 where it's going to have the least impacts to
11 those resources. And some folks are probably
12 aware that design efforts are still
13 continuing in that regard to look at the
14 underground location, to provide further
15 avoidance to various features along the
16 route.

17 Q. Right. And I realize there are a lot of
18 other factors that would go into choosing an
19 optimal route. But I'm just asking with
20 regard to that one specific characteristic of
21 number of wells. Wouldn't it be nice to have
22 fewer wells rather than more to contend with
23 when you're building a project like this?

24 A. (Tinus) Sure. But it's through a developed

1 or a partially developed area, so there are
2 wells there.

3 Q. Okay. Wouldn't, for example, siting the
4 Project down the median of I-93 provide a
5 natural buffer away from wells? Wouldn't
6 that be a particular advantage to that route?

7 A. (Tinus) I don't believe the I-93 route was
8 studied. I know that there's limitations in
9 terms of what the state allows.

10 Q. Yeah, other issues. But just when it comes
11 to wells and avoiding that, the nature of
12 that problem, the water quality in people's
13 wells, doesn't it seem like 93 would provide
14 a natural buffer?

15 A. (Tinus) You're asking a hypothetical question
16 that I just don't have an answer to. I'm
17 sorry. We haven't looked at comparing the
18 route location to other hypothetical
19 locations like that.

20 Q. Okay. Now, your analysis of the underground
21 portion of the route was based on Company
22 plans that had it under the pavement,
23 largely; isn't that correct?

24 A. (Tinus) Either under or directly adjacent to

1 the pavement, right. On the road shoulder.

2 Q. Right. And the residents here, and Mr.
3 Oldenburg, the other day, confirmed that on
4 116 there's really no shoulder of that road.
5 You've got maybe a foot but -- okay. I'll
6 let that go.

7 So have you updated your analysis to
8 reflect the fact that the DOT says that they
9 would rather see this towards the outer edge
10 of the right-of-way, meaning away from the
11 pavement into front yards?

12 A. (Tinus) The engineering team is currently
13 working on that very effort, considering what
14 the DOE -- DOT has provided for feedback.
15 And I know they are looking at the design now
16 and tweaking it to do what they need to do to
17 make this work right for everybody, including
18 folks that have wells.

19 Q. And wouldn't you expect the environmental
20 impact to get worse the farther you move away
21 from the pavement?

22 A. (Tinus) I can't agree to that. That's a
23 broad generalization.

24 Q. Would it have a greater impact on vegetation,

1 for example?

2 A. (Tinus) Perhaps.

3 A. (Carbonneau) I would say that's possible if
4 you're not in the roadbed or the developed
5 shoulder and you go beyond that, it's more
6 likely that there will be natural vegetation.

7 Q. And in terms of impact on wells, if, for
8 example, like in my case, where my well is
9 50 feet from the pavement, the further you
10 advance into the right -- or into the front
11 yard, the closer you get to the well. I
12 would imagine that's also another potential
13 adverse environmental impact by moving away
14 from the pavement and into yards. Would you
15 agree with that? The potential is there.

16 A. (Carbonneau) I guess there is a potential.
17 But it's not a given that there will be any
18 impact to the well at all. But I guess, I
19 suppose if it's a little closer, it would
20 seem logical that there could be a slight
21 increase in the potential at least.

22 Q. Can you think of any other adverse
23 environmental impacts that might happen as
24 you move the Project away from the pavement

1 and out into the yards?

2 A. (Carbonneau) I think that I don't know if I
3 would say into the yards. But as you get
4 further away from the developed portion of
5 the road right-of-way, there's a potential
6 for other natural resource effects, yes.

7 Q. Can you enumerate some of those?

8 A. (Carbonneau) Could be wetlands, could be
9 streams, could be mature trees. In some
10 cases there could be a rare, threatened or
11 endangered plant at the edge of the
12 right-of-way.

13 Q. So would you still be able to say, then, that
14 there's no unreasonable adverse effect of
15 this project?

16 A. (Carbonneau) I can't speculate on that. It
17 would have to be an evaluation, and we have
18 not done that evaluation.

19 Q. One of the other things that has changed with
20 regard to the plans is the fluidized thermal
21 backfill, and also, I believe, the plan for
22 the trenches to now be 4 feet by 7 feet deep
23 instead of 4 feet by 4 feet. So we have --
24 we had earlier testimony from Ms. Carbonneau.

1 You said you thought that the trenches were
2 lined and so there wouldn't be any effect on
3 well or groundwater. But Mr. Tinus said it
4 is indeed an open trench with the fluidized
5 backfill that contains heavy metals but that
6 won't leach out.

7 A. (Carbonneau) It was not my testimony that
8 these are lined trenches.

9 Q. Oh, okay. Can you correct what you said? If
10 that was a mistake, then I'm sorry. What was
11 your understanding about the trenches?

12 A. (Carbonneau) Not that they were lined. I
13 can't recall exactly what the conversation
14 was about, but it was not regarding lining of
15 the trench.

16 Q. Okay. I thought the idea was that there was
17 something there that would mean that any
18 fluidized backfill wouldn't be exposed to the
19 soil, so that it was encased in a concrete
20 box or the trench was lined or there was
21 something there.

22 A. (Carbonneau) No. The fluidized backfill goes
23 into the trench. But below that, the cables
24 themselves are encased. And as it turns out,

1 I guess it's in concrete and not necessarily
2 in a duct bank that is open without any fill
3 in it. So the cables themselves are not in a
4 porous material. But then there is a
5 fluidized thermal backfill above that which
6 is inside the trench. But it is not lined.
7 It will be in contact with the soil.

8 Q. Okay. So is it fair to say, then, you're
9 both on the same page in terms of the
10 construction of the trench, both Mr. Tinus
11 and Ms. Carbonneau?

12 A. (Carbonneau) I think we're on the same page,
13 yes.

14 A. (Tinus) Yes.

15 Q. Okay. So with regard to the fluidized
16 backfill, we have Mr. Tinus saying it does
17 include potentially heavy metals but that it
18 will not leach these heavy metals into the
19 groundwater. Now, this line is going to be
20 in place forever. How do we know that 80
21 years down the line this is not impervious
22 anymore to years and years of erosion,
23 movement in the ground, that kind of thing,
24 and things do start leaching out of this

1 product?

2 A. (Tinus) We haven't studied that. And I don't
3 know that the line is scheduled to be in
4 service for 80 years. I don't think -- I
5 think it's half that. But I could be wrong.

6 Q. Okay. But it's your call as to when you
7 would go in there and replace it. So the
8 homeowner bears the risk of this
9 deterioration potentially occurring and
10 nobody coming in willing to replace the line.

11 A. (Tinus) Well, I think whatever maintenance is
12 required on the trench and the line will be
13 done on whatever schedule is necessary.

14 Q. Okay. Another thing I wanted to ask you
15 about is with regard to fly ash. Now, my
16 understanding is that it's not a homogeneous
17 material, that different batches of fly ash
18 could have different contaminants in it, that
19 some may have a high quantity of mercury, for
20 example, and another batch wouldn't show much
21 mercury at all. So if that's the case, when
22 the Company tests this product and says it's
23 safe, how do you know that the batch that
24 goes in in front of my house doesn't contain

1 different contaminants, different things than
2 the one you tested in the lab?

3 A. (Tinus) I don't know anything about how that
4 works, but I assume they have a document
5 trail that proves that it is tested as to
6 what they claim it is and that they're
7 following certain standards or protocols as
8 required by law. There is that requirement
9 in the law. In order to use this material,
10 it needs to be tested, and it needs to not
11 have exceedances, for your example, of
12 mercury and other constituents that if in
13 larger quantities could be toxic. But these
14 are lower thresholds that are allowed.

15 Q. But do you agree with my statement that fly
16 ash is not a uniform product, not a
17 uniform --

18 A. (Tinus) I think that's why they have testing,
19 because it can vary from the source,
20 depending on what kind of coal it came from.

21 Q. Okay. So it's possible that as this is being
22 installed in our front yards, if we took a
23 sample of the product, the fluidized
24 backfill, and say we took it to an

1 independent lab and had it tested and I find
2 high levels of mercury in this particular
3 sample, what happens? What does the
4 homeowner do? How do you stop the Project
5 and say wait a minute, this has got an
6 unusually high level of mercury?

7 A. (Tinus) I don't know. That's a hypothetical
8 I don't have an answer for. Sorry.

9 Q. Another topic that I wanted to raise is with
10 regard to excavating and then reusing
11 roadside soils and that that can stir up and
12 release petroleum products from car exhaust
13 that might be adjacent to the road. What do
14 you think the impact would be on a nearby
15 well water from just the stirring up of the
16 topsoil and releasing these petroleum --
17 freeing up these petroleum byproducts?

18 A. (Tinus) Never heard of that as an issue
19 before. Construction is done all the time
20 along roadsides. Municipalities install
21 various utilities, repair pipes, replace
22 things, upgrade them. Many years doing this,
23 I've never heard of that brought up as an
24 issue.

1 Q. If this project were going in a few feet from
2 your own wells at your own homes, if you have
3 well water, how long after installation would
4 you be testing your well, and what would you
5 test it for? So this would encompass all
6 possible things that you might be concerned
7 about. Just wanting to be sure what you test
8 for.

9 A. (Tinus) I would follow the DES regulations
10 for homeowners and testing wells. They have
11 good guidance, and that covers a lot of the
12 parameters.

13 Q. And how long would you test your well for to
14 make sure there weren't any changes?

15 A. (Tinus) I think you'd test it once, and with
16 the assumption that everything is okay, then
17 you're fine. I know personally I have my own
18 well. I test it about every three or four
19 years.

20 Q. Okay. What about in the instance of
21 blasting? What sort of pre-blasting testing
22 do you do, and how long do you follow-up with
23 monitoring of wells that are near blasting
24 sites?

1 A. The Project intends to follow the blasting
2 protocol that it will have in place based on
3 the DES recommendations. Some of that
4 includes water testing. It's also checking
5 for physical things to the structure
6 beforehand. So there would be a baseline
7 analysis done to look at the structural
8 integrity of the properties and testing the
9 well to see if there's anything in there
10 presently. I believe what the construction
11 panel testified to was any wells within
12 500 feet of blasting, DES would like to see
13 that done when there's 5,000 cubic yards of
14 material removed in any location.

15 Q. And what do they test for?

16 A. (Tinus) Typical things tested for in water,
17 including nitrates, hydrocarbons that could
18 be released from the blasting process.

19 Q. Despite the DOT using Best Management
20 Practices, some of the blasting that was done
21 for highway construction in Windham, New
22 Hampshire in 2009 and 2013 resulted in
23 nitrate contamination of groundwater. So are
24 BMPs adequate protection from the risk of

1 blasting near wells?

2 A. (Tinus) I think that's an extremely large
3 area that they blasted, if I'm understanding
4 your reference correctly. The amount of
5 blasting for the Northern Pass Project is
6 going to be pretty small, quite frankly,
7 aside from some of the transition stations;
8 those would be largest area. But I don't
9 even know if blasting is going to be required
10 along the underground route itself. We'll
11 know more when they take additional boring
12 information, you know, within the
13 right-of-way and other select locations. But
14 until we have a blasting plan, it's hard to
15 draw conclusions about what the effects of it
16 might be.

17 Q. Okay. I guess, bottom line, I get to a
18 fundamental question, and it's going to sound
19 like a rhetorical question, but it's really
20 not. I'd like to hear what you have to say
21 about that.

22 The question is: Who pays the price for
23 being wrong? For the homeowners along the
24 route, you know, this could cost us a lot of

1 money because we bear the risks of the
2 contamination in the backfill. We bear the
3 risk of stirring -- what I think is a risk of
4 stirring petroleum byproducts down into the
5 soil. I remember kids with lead poisoning,
6 and that was an issue that people were
7 looking at as to whether that's where their
8 lead exposure was coming from. We've got the
9 risk of blasting. You know, our families are
10 drinking the water from wells that are
11 30 feet from the construction.

12 So my question is: If things go wrong,
13 does anybody on your side bear any personal
14 responsibility? I mean, is the decision
15 made, and then you just deliver us bottled
16 water if something goes wrong?

17 A. (Tinus) I think what we've been talking about
18 up here is that, first off, DES has by
19 fact -- by virtue of the fact they have
20 indicated that we've addressed the concerns,
21 and we'll continue to do so during
22 construction and even after by following all
23 the permit conditions, that we've
24 acknowledged that we've done a good job

1 looking at the issues you're talking about.

2 But furthermore, the construction panel
3 I know has mentioned that if there are any
4 issues, that they will be addressed at the
5 time. We don't want to go there. That costs
6 money. That costs people's clean water. You
7 know, we want to avoid that. By following
8 the Best Management Practices, by doing
9 pre-blast surveys, by doing water-quality
10 monitoring and those kinds of things we've
11 been talking about, we feel that we'll keep
12 that at bay, that it won't rise to that level
13 that you're expressing.

14 Q. I guess I'd have to question if one person
15 finds a high level of mercury or finds
16 nitrates in their well or finds something
17 like that as a result of the Project. That
18 impact filters down to everybody else that's
19 along the line of the Project. So, even if
20 the risk is small, it affects all of us that
21 are lining the Project. It affects all of
22 our property values.

23 So, to get around to a question, I guess
24 it would be: Doesn't it make some sense,

1 doesn't it make a lot of sense to move this
2 into a situation where it's away from homes
3 and away from wells, like the median of I-93?
4 Isn't that preferable to taking the risks,
5 asking all of us to take these risks that I
6 just outlined with our water quality, with
7 our property values? We've got real money on
8 the line. This comes out of our hide. You
9 people are making the decision, an executive
10 decision, and nothing really wrong happens to
11 you if you're wrong. I mean, nothing
12 financial happens to you if you're wrong.
13 There are no penalties. So doesn't it make
14 sense to try to locate this as far away from
15 an impactful place as possible, like I-93?

16 A. (Tinus) I know you mentioned I-93. I mean,
17 again, we've looked at the Project from the
18 location where it's at and we're continuing
19 to acknowledge the issues that folks like
20 yourself are bringing up and keeping them in
21 mind. And through the coming months, as the
22 contractors are getting engaged, they're
23 going to be made fully aware of these issues,
24 that they need to exercise extreme caution

1 and common sense and do their jobs correctly.
2 And that's why we're all working on this
3 project. And some of us have been working on
4 this for a very long time to bring it to this
5 point, so...

6 Q. Well, and part of the reason it's taking so
7 long is because folks like us are fighting
8 you because of exactly these kinds of
9 concerns. But I think that's --

10 MS. MEYER: That concludes my
11 questioning.

12 CHAIRMAN HONIGBERG: Mr. Lakes,
13 I think that brings us to you.

14 CROSS-EXAMINATION

15 BY MR. LAKES:

16 Q. Hello. I am Carl Lakes. I'm an intervenor
17 on Route 116 in Easton, on the underground
18 route. And I'll try to get through this as
19 fast as possible. "Yes" and "No" answers are
20 probably the best, but I guess sometimes you
21 just have to say more than that. Let's
22 begin.

23 When planning a project of this scope,
24 are there regular meetings with Eversource to

1 discuss various environmental issues?

2 Anybody can answer that. I don't know who
3 would be the best.

4 A. (Carbonneau) Yes.

5 Q. Who attends these meetings from Eversource?

6 A. (Carbonneau) A project director and sometimes
7 an environmental person from Eversource. It
8 depends on what the issues are that are being
9 discussed. And also in some cases their
10 legal department will attend as well,
11 sometimes engineers who are working on the
12 Project also.

13 Q. Does upper management attend any of these
14 meetings, say a VP? Is there a VP of
15 environmental at Eversource?

16 A. (Carbonneau) Yes, there are definitely
17 high-level environmental folks at Eversource
18 that attend from time to time.

19 Q. Okay. And you have high-level Eversource
20 construction folks in the room as well?

21 A. (Carbonneau) Yes, if there's a -- typically
22 more engineering than construction, but
23 high-level engineers are sometimes involved
24 in those meetings.

1 Q. Is there coordination between contractors
2 where kind of the left hand knows what the
3 right hand is doing and so forth, where you
4 try to work in harmony?

5 A. (Carbonneau) Well, during the planning of the
6 Project, the contractors that have since been
7 hired were not necessarily participating in
8 those meetings during the planning process of
9 the Project. They have been engaged more
10 recently. In some cases they attend meetings
11 where environmental issues are discussed.
12 But they're not contracted through my
13 company. They are contracted through the
14 Northern Pass team, so -- but there is
15 internal discussions. And there are many
16 other meeting types that take place. So
17 there are different groups of people meeting.
18 There's a fairly good amount of
19 cross-pollination of ideas and planning
20 documents.

21 Q. So you were saying that there actually is a
22 vice-president of environmental services at
23 Eversource?

24 A. (Carbonneau) I don't know if it's a

1 vice-president. I'm not sure exactly what
2 her title is. But Catherine Finneran has
3 been involved in our meetings as well.

4 Q. At least my corporate life has normally been
5 where corporations take the environment very
6 seriously and usually have very high-level
7 people attend meetings. And in this day and
8 age, where maybe there's too many VPs, a lot
9 of times they do show up at these meetings
10 for input as well. But you have not seen a
11 vice-president of environmental resources in
12 these meetings. Is that what you're saying?

13 A. (Carbonneau) I'm not saying that. I'm saying
14 I'm not sure what all of their titles are, if
15 they're actually vice-presidents of
16 environmental or not. Sorry.

17 Q. Okay. So, say you have an issue such as a
18 wetland that will potentially be completely
19 destroyed, never to be returned to its
20 pristine condition. What process do you go
21 through to finding a solution for that?

22 A. (Carbonneau) Well, this is a hypothetical
23 question, so I'm not sure.

24 Q. I don't know if it's hypothetical. I mean,

1 you have to have some -- if you have a
2 wetland that's going to be destroyed, my
3 question is -- let me just elaborate further
4 then.

5 So, say if it's going to be destroyed,
6 you may look for an alternate route. Would
7 that be something that might be a
8 possibility?

9 A. (Carbonneau) Well, for the most part, I don't
10 think we have too many wetlands that are
11 going to be "completely destroyed" by this
12 project, so I wouldn't use that term. We
13 have wetlands that will be impacted by the
14 Project. And to the extent that we can avoid
15 them by rerouting an access path or a work
16 pad or even a structure itself, then that is
17 an effort that's worth doing.

18 Q. And obviously you've been working through the
19 DES, and there are times when you need to
20 find a variance or get a variance from the
21 DES to move the Project along at a certain
22 point; is that correct?

23 A. (Carbonneau) I'm not sure a variance is the
24 correct legal term. There may be a

1 possibility that an impact that has not been
2 approved previously may be necessary, in
3 which case we would need to seek a permit
4 amendment.

5 Q. So I'm not sure if this is a permit
6 amendment. But basically at that point,
7 perhaps Eversource needs to pay compensatory
8 damages and, you know, or some sort of a
9 cost. And I had seen where there's something
10 like a \$3- to \$4 million set aside of funds
11 with regard to some of the destruction along
12 the route.

13 How is the cost determined when putting
14 the value on killing and displacement of
15 wildlife is the subject at hand? What is it
16 worth? How is the final number reached, and
17 is it negotiated?

18 A. (Carbonneau) I can describe to you what the
19 mitigation requirements are under the law.

20 The New Hampshire Wetlands Bureau
21 requires that you identify your wetland
22 impacts. They have what's -- and there are a
23 couple options for mitigation. So there's
24 the preservation option. But you may be

1 referring to the ARM Fund, which is the
2 Aquatic Resource Mitigation Fund. They have
3 an online formula, a worksheet that you put
4 information into. It's the area of the
5 impact, and then it calculates based on what
6 it might cost to actually construct
7 replacement wetlands at a higher ratio, what
8 that cost would be. And they turn that into
9 what's called an Aquatic Resource Mitigation
10 Fund payment. So it's based on the area of
11 impact, what the land values are in that
12 town, what it would cost to construct a
13 replacement wetland. And that's all
14 prescribed in the rules for the New Hampshire
15 Wetlands Bureau.

16 As far as actual wildlife impacts, there
17 are currently no specific rules or guidelines
18 about mitigation for direct impacts to
19 wildlife. However, New Hampshire DES does
20 ask that we coordinate with New Hampshire
21 Fish & Game to make sure they're aware of the
22 impacts that are proposed and determine if
23 there is something in addition that might be
24 required. So, New Hampshire Fish & Game and

1 the other resource agencies have been
2 provided with our compensatory mitigation
3 plan so they can determine if it's adequate
4 to meet their needs.

5 So our mitigation plan, in addition to
6 the cost for mitigation, includes some
7 preservation of parcels that not only have
8 high-value wetlands with upland buffers
9 around them, but valuable wildlife habitat
10 based on the types of impacts that we're
11 expecting of wildlife habitat as well.

12 Q. Would I assume that Eversource urges you to
13 put forth a study which minimizes the cost to
14 the corporation?

15 A. (Carbonneau) No, I disagree with that
16 assumption.

17 Q. I didn't say they did. But I asked if there
18 may be the assumption because you're working
19 for Eversource, the impetus to find ways to
20 mitigate the costs or minimize the costs
21 associated with some of these issues
22 encountered with wetlands and so forth.

23 A. (Carbonneau) Well, we've made many
24 recommendations on the Project for avoiding

1 and minimizing wetland impacts. And within
2 the right-of-way within the Project area,
3 cost has never come up as a reason why they
4 could not further avoid or minimize an
5 impact. It's always been some technological
6 issue based on safety clearances or terrain
7 or some other reasons. So cost has never
8 been an issue there. And it's never been an
9 issue with the mitigation package either. In
10 fact, we have way more mitigation than is
11 even required under the rules, and the
12 Northern Pass team never balked at our
13 recommendation on that.

14 Q. Okay. Let's move on.

15 In a project this size, you will
16 invariably destroy lots of trees, crush and
17 smother wildlife, displace habitat,
18 permanently destroy habitat, et cetera. One
19 has to wonder about the environmental cost
20 versus monetary value, versus not doing the
21 Project at all.

22 I want you to think along these lines:
23 Say you could pay \$50,000 to a landowner to
24 avoid a pristine wetland. Is this action

1 actually explored along the whole route? In
2 other words, you know, you have an easement
3 and you're cutting trees down and so forth,
4 and here's this pristine wetland. And, jeez,
5 you know, if we could only go 30 feet more
6 over to this side and avoid it completely
7 rather than having to deal with it in some
8 way or hurt it or harm it in some way. Is
9 there a reach-out to landowners in those
10 situations to see if in fact Eversource could
11 pay that landowner to extend the easement
12 over to the side to avoid that wetland? Is
13 there any actions like that?

14 A. (Carbonneau) Well, my -- not that I'm aware
15 of.

16 Q. Okay.

17 A. (Carbonneau) But my understanding is the
18 easement is -- I mean, the easement is
19 already there. There's already a clearing
20 with the structures in it. If we were to ask
21 for additional easements somewhere else, then
22 it would only increase the area of impact by
23 building outside of the existing
24 right-of-way. So it would be a worse

1 impact --

2 Q. Sorry. Well, not necessarily so. If you're
3 avoiding something that's pristine, that may
4 be worth, you know, the act of cutting down a
5 certain portion of trees on a dry piece of
6 land where you're avoiding it -- anyway, I'm
7 just making a point. I just wanted to know
8 if you actually do that, yes or no.

9 A. (Carbonneau) No, and I don't think any of the
10 resources in the existing right-of-way would
11 qualify as pristine. They've all been
12 managed for decades.

13 Q. I don't know. I heard about a few pristine
14 wetlands today.

15 Getting back to internal meetings with
16 Eversource on environmental issues. Mr. --
17 is it Tinus or Tinnus?

18 A. (Tinus) Tinus.

19 Q. Would such things as horizontal directional
20 drilling and the possible consequences of
21 frack-out be discussed in these internal
22 meetings?

23 A. (Tinus) With the contractors now on board,
24 those discussions will be occurring, yes.

1 Q. You're part of those contractors; correct?

2 A. (Tinus) I am not. I work for Burns &
3 McDonnell, the engineering folks that did
4 preliminary engineering for the Project.

5 Q. Okay. So once you're done with the
6 preliminary engineering, your company walks
7 away? Is that what it is?

8 A. (Tinus) No, not at all.

9 Q. So you're in those meetings. Or you should
10 be in those meetings.

11 A. (Tinus) Yes.

12 Q. And you are --

13 A. Me personally, though, I don't know if I'll
14 be involved. It's more of the contractors,
15 and then probably as needed I'll be in
16 meetings, as might Lee and others from the
17 environmental side.

18 Q. Yeah, I do get it. But I would think that
19 there should be an environmental person there
20 at every meeting, which I guess you're
21 representing.

22 A. (Tinus) It's a good recommendation.

23 Q. Thank you.

24 Would you agree that polymers that are

1 mixed with bentonite for lubrication are
2 harmful to fish, invertebrates,
3 bottom-dwelling species and can be possible
4 carcinogens? Yes or no?

5 A. (Tinus) When they're used in proper dosage,
6 they don't cause those effects.

7 Q. But they do cause the effects, just like
8 drugs and everything else, I mean, if you
9 overdose on a drug versus not overdosing.
10 Anyway, I understand and we'll move forward.

11 So is Eversource upper management,
12 particularly those in charge of engineering
13 and construction, made aware of the possible
14 harmful effects of the polymers used in
15 drilling mixtures?

16 A. (Tinus) I don't know.

17 Q. From my cross-examination of the construction
18 panel, the attendees pleaded ignorance to any
19 knowledge of the harmful properties of these
20 products.

21 I'd like to put up Exhibit No. APOBP 42.
22 (Exhibit APOBP 42 marked for
23 identification.)

24 Q. And on this exhibit I asked Mr. Bowes the

1 following: Horizontal directional drilling
2 uses bentonite and drilling fluids made up --

3 (Court Reporter interrupts)

4 CHAIRMAN HONIGBERG: Slow down.

5 MR. LAKES: Sorry.

6 CHAIRMAN HONIGBERG: Hang on
7 just one second. That is a very common
8 problem. Virtually everyone has the same
9 problem. And the stenographers know it, and
10 they are ready.

11 MR. LAKES: Yeah, I don't know
12 how they do it either. I'd go insane.

13 BY MR. LAKES:

14 Q. So, anyway, "Horizontal directional drilling
15 uses bentonite and drilling fluids made up of
16 polymer additives for lubrication. Are you
17 aware" -- and this would be to Mr. Bowes --
18 "that these materials have been found to be
19 toxic to fish and invertebrates and can
20 negatively affect the aquatic environment?"

21 Mr. Bowes says, "I am not."

22 Going on further to the bottom, and then
23 we'll move over to the next exhibit
24 afterwards. "Are you aware that the fluid

1 polymer ACCU-VIS that was used with the
2 bentonite contains carcinogens possibly
3 harmful to humans?"

4 MR. LAKES: And you can put on
5 the next one.

6 BY MR. LAKES:

7 Q. Again Bowes says, "I don't have any knowledge
8 of the polymers or the fluids that are used
9 besides the bentonite."

10 In your professional opinion, then, Mr.
11 Tinus, should a company such as Eversource
12 that is authorizing third parties to perform
13 work in their name be aware of harmful
14 products or possible negative consequences
15 prior to the start of any project? Shouldn't
16 all levels of management be aware?

17 A. (Tinus) That seems to be a prudent
18 suggestion, yes.

19 Q. Moving on. Who specifies the drilling fluids
20 to be used in HDD? To go further, does
21 Normandeau or Burns & McDonnell review the
22 fluids, third-party oversight? Is there any
23 knowledge on that at all?

24 A. (Tinus) We haven't talked about that

1 specifically.

2 Q. Will you be talking about it specifically? I
3 guess that's --

4 A. (Tinus) Now that you've mentioned it, I think
5 that's prudent.

6 Q. Are you aware that there are low-toxicity,
7 water-based polymers out there?

8 A. (Tinus) I'm not personally aware of that, no.

9 Q. Perhaps somebody should investigate that.

10 Is there anyone on the panel that worked
11 with Eversource during the underground
12 project from Middletown to Norwalk?

13 A. (Carbonneau) Normandeau was not involved in
14 that, so...

15 Q. Mr. Tinus?

16 A. (Tinus) I haven't personally been. But I
17 know that our company has worked on it.

18 Q. Okay. We can skip that whole area then.
19 We'll move along quicker.

20 Mr. Tinus, can frack-outs get into
21 homeowners' wells?

22 A. (Tinus) If they're not properly managed, I
23 suppose the answer is yes.

24 Q. And I'm sure, as you may be aware, frack-out

1 can travel many hundreds of feet. Will
2 Eversource screen wells and test for
3 contamination either from frack-out or
4 blasting within 500 feet of all wells along
5 the route?

6 A. (Tinus) Pretty sure the construction panel
7 indicated that that would be the case.

8 Q. All right. What is the procedure for
9 cleaning a contaminated well from frack-out
10 or blasting materials?

11 A. (Tinus) I don't know specifically.

12 Q. Who does know that within either -- on this
13 panel? Is there anybody else that knows this
14 on this panel?

15 A. (Carbonneau) No.

16 Q. I would think that's something that an
17 environmental panel should know.

18 Will all frack-outs, spills, incidents
19 of contamination, fuel spills be reported to
20 town governments immediately and followed up
21 by written report?

22 A. (Tinus) There will be a reporting protocol in
23 place with all of these monitoring plans that
24 are being prepared for blasting and for the

1 HDD, for the spill prevention/containment
2 countermeasures plan. So that will have
3 reporting requirements in there.

4 Q. And that will be reported to towns?

5 A. (Tinus) I assume the towns would be copied on
6 those communications as well, yes.

7 Q. I would hope so, because if it's something
8 that's affecting any of the residents in the
9 town, then the town government and
10 conservation commissions should be
11 knowledgeable of that.

12 Let me ask you: If there is an event,
13 how much damage will require follow-up?

14 A. (Tinus) I mean, without very specific -- it's
15 hard to pinpoint what damage would require
16 what kind of follow-up. So I don't know that
17 I can provide a specific answer --

18 Q. Will there be some -- sorry.

19 Will there be some written sheet that
20 can be dispersed among the communities that
21 says, you know, this is what you can expect
22 from us if there is a frack-out or some
23 damage done to somebody's well, this is the
24 follow-up, this is how we're going to do it?

1 A. (Tinus) I'm familiar with other projects
2 having a similar process in place, so I think
3 that would be done as well as part of the
4 outreach, ongoing outreach. It's going to be
5 extensive when construction starts. And it
6 is now trying to get together with
7 municipalities, to sit down with them to
8 identify issues like the kinds that you're
9 raising, to get a Memorandum of Understanding
10 or agreement together that specifically
11 outlines some of these things and hopefully
12 some solutions to some, or answers to the
13 questions.

14 Q. Okay. The way I understand it, fresh water
15 is necessary for HDD. Does Eversource and
16 its contractors plan on accessing streams,
17 rivers and ponds as a source of fresh water?

18 A. (Tinus) I think, in terms of obtaining enough
19 water, it depends how much they'll need at a
20 particular crossing. There are certainly
21 requirements that the DES has in terms of
22 withdrawal, water withdrawals. And, you
23 know, permission may be required from the
24 state and obviously private landowners where

1 the water is withdrawn. But I also
2 understand they're considering trucking in
3 water.

4 Q. Okay. Will vacuum systems be on site at all
5 HDD locations to quickly clean up frack-outs,
6 spoils or spills before they can enter the
7 streams, wetlands or other sensitive areas?

8 A. (Tinus) I think the crews will have
9 appropriate equipment as specified in the
10 plan. I don't know where that would be or
11 how many, but they will need to have that.

12 Q. Are they going to have the same equipment
13 that the geotechnical boring folks had on
14 Route 12 and 116, leaving dispersed polymers
15 and bentonite all over the sides of the road?
16 Will we improve on that?

17 MR. WALKER: Objection.

18 CHAIRMAN HONIGBERG: Grounds?

19 MR. WALKER: He's testifying and
20 with no foundation. I hate to use the word "no
21 foundation," but there is zero foundation for
22 that.

23 CHAIRMAN HONIGBERG: Mr. Lakes.

24 MR. LAKES: Okay. We'll move

1 on.

2 BY MR. LAKES:

3 Q. The DOT calls for the transmission line to be
4 outside the pavement where "practicable."
5 There's that word again. Has any
6 environmental study been performed to help
7 DOT determine the placement of the line, of
8 the underground line?

9 A. (Carbonneau) We have done environmental work
10 all along the underground route and provided
11 our information to the project team and the
12 engineers. It includes natural resources
13 within the existing road right-of-way, and it
14 includes everything else that we would have
15 surveyed for in the overhead portion of the
16 route. So it would have included wetlands
17 and streams, rare plants, et cetera,
18 archeological sites, all of that information.

19 Q. So tell me what's going to happen if DOT says
20 you must have the transmission line off of
21 the road. In Easton, there are places where
22 the wetlands come right up to the side of the
23 road, literally. How do they go through that
24 wetland with a underground transmission line

1 if DOT says that's the only place you can put
2 it?

3 A. (Carbonneau) They would do that as they would
4 almost anywhere else. They would have to
5 excavate a trench, backfill the trench and
6 then put the topsoil that had been taken out
7 back over the top of it.

8 Q. So Normandeau, whom you represent, wouldn't
9 have an issue going through wetlands or
10 swamps with a transmission line?

11 A. (Carbonneau) Well, it's not up to us. We're
12 telling everyone what the resources are. I'm
13 just telling you how that would be
14 constructed if you had an underground trench
15 that goes through a wetland alongside of the
16 road. Clearly, that's not in our current
17 Wetland Applications everywhere to be outside
18 of the disturbed roadbed in the road
19 right-of-way. So if there were additional
20 wetland impacts resulting from a final design
21 that expected to have greater wetland
22 impacts, then we submit it in our
23 Application, and we would either need to
24 revise our Application materials or request

1 an amended permit.

2 Q. So I would assume that it would have to
3 probably be a variance. Variances seem to be
4 what DOT does. That's what Eversource seems
5 to go after are variances. And there may be
6 compensatory damages as a result of going
7 through one of these wetlands on the side of
8 the road. Does that sound reasonable?

9 A. (Carbonneau) Whether or not there is
10 mitigation required depends whether it's
11 permanent or temporary impact. Certainly, if
12 you have to ask for a greater amount of
13 wetland impacts, there's an application fee
14 associated with that. So it will be a
15 monetary issue whether or not mitigation is
16 required.

17 Q. Thank you. Next I'd like to talk about
18 trenching. Some of this may be a little
19 redundant, but after hearing what I haven't
20 heard and have heard today, I think it bears
21 a little more talking about.

22 First the trench is excavated, conduit
23 put in place, a cement pad goes over the top
24 of the conduit, and then it's filled in with

1 thermal backfill, which is a cementitious
2 type of product.

3 As background, Route 116 has many areas
4 of swamp and wetlands. I know there has been
5 a lot of back and forth on this, but today I
6 was just given some evidence that I want to
7 introduce right now. And here we go.

8 (Pause in proceedings)

9 BY MR. LAKES:

10 Q. So, again, I know there's been a lot of back
11 and forth on this business about the fill.
12 But I was just given some evidence that I
13 want to introduce. This is from the DOT
14 Conference Report, dated October 5th, 2016,
15 for a meeting held on September 27th. And
16 the host was -- there was a whole host of
17 Eversource attendees there, but this was a
18 DOT conference with Eversource people
19 present.

20 CHAIRMAN HONIGBERG: Mr. Lakes,
21 can you show us the first page of this
22 document?

23 MR. LAKES: Yes. Can you flip
24 that over, please?

1 I meant to do that. Came up
2 so recently, I hadn't put total thought into
3 it. But that is the cover page of that
4 meeting. States all of the people that were
5 there for this meeting. And DOT was
6 presenting -- or not presenting, but they
7 were running the meeting. But Eversource was
8 also presenting information.

9 CHAIRMAN HONIGBERG: Is this
10 already an exhibit?

11 MR. LAKES: No, it just
12 happened. I'm going to have to add a number to
13 it.

14 CHAIRMAN HONIGBERG: You don't
15 happen to know what number that would be, do
16 you?

17 MR. LAKES: I might be able to
18 tell you, actually.

19 CHAIRMAN HONIGBERG: That's all
20 right. It's whatever the current number is
21 plus one.

22 (Exhibit APOBP 43 marked for
23 identification.)

24 MR. LAKES: And then if you

1 would, Campbell, please flip that over.

2 BY MR. LAKES:

3 Q. In it Eversource presented to DOT fluidized
4 thermal backfill information, and this is
5 what it says: FTB, fluidized thermal
6 backfill, is water-permeable, similar to DOT
7 gravels, does not create water dams and
8 behaves as a French drain in poor soils.

9 First, I must ask again after hearing
10 this back and forth today about what this
11 stuff really is. And I think Mr. Tinus kind
12 of gave the last word on it, but this seems
13 to go in direct opposition to what you were
14 saying, where you were saying it was a solid
15 block, basically impervious. Which is it?

16 A. (Tinus) Right. What I was commenting on was
17 the concrete encasement for the lines, for
18 the underground cable. This material as
19 noted is more permeable.

20 Q. Okay. Maybe I misunderstood. I heard, you
21 know, the FTB so many times back and forth, I
22 wasn't sure what I was listening to.

23 So you agree with Eversource that this
24 material is permeable and acts as a French

1 drain.

2 A. (Tinus) That seems right, yeah. I'm sure an
3 engineer wrote this.

4 Q. Yup. Yeah, they always get us in trouble.

5 Second, is it possible that a
6 longitudinal line could act as a French drain
7 redirecting water and groundwater away from
8 one area and causing issues in another? Is
9 that possible? Has it been studied?

10 A. (Tinus) That particular scenario described
11 has not been studied, no.

12 Q. Could the existence of a trenched
13 transmission duct bank cause wetlands to
14 become unbalanced and cause environmental
15 damage either by not flowing through the
16 transmission line or by flowing along the
17 line?

18 A. (Tinus) I think that's contrary to what this
19 is saying, a French drain meaning that it
20 flows from one side of the road to the other,
21 if that's the scenario you're trying for us
22 to -- presenting for us.

23 Q. Well, the scenario I'm trying to paint is
24 that the French drain allows water to just --

1 you got to remember there's a solid thing
2 inside this thing which is blocking water, at
3 the same time allowing it to flow along the
4 line.

5 And I guess my next question would be:
6 If this is possible, would this or could this
7 be mitigated through permanent trench
8 breakers or trench plugs which are used
9 extensively in the pipe industry
10 particularly, but I did find it used within
11 transmission lines particularly in the
12 Tennessee area, particularly where slopes are
13 involved and water could run from a higher
14 location along the transmission line to a
15 lower location?

16 A. (Tinus) I think we'd have to direct that to
17 the engineering team and see what they think
18 about that.

19 Q. Could you do that for us?

20 A. (Tinus) I will.

21 Q. Thank you.

22 MR. LAKES: Okay. Could you
23 please put up Exhibit 44.

24 (Exhibit APOBP 44 marked for

1 identification.)

2 BY MR. LAKES:

3 Q. Okay. Mr. Tinus, you said in your Prefiled
4 Testimony, as per the exhibit, that no new
5 impervious surfaces will be created by the
6 undergrounding activities. Well, isn't the
7 cement pad over and around the line
8 impervious? I don't understand that
9 statement.

10 A. (Tinus) That's buried. It's the concrete I
11 was talking about the around cable, so it's
12 not on the surface.

13 Q. I'm going to say that again. It says, "No
14 new impervious surfaces will be created by
15 the undergrounding activities." Isn't the
16 cable and the cement pad which you said
17 earlier is impervious, impervious?

18 A. (Tinus) But it's not at the surface. I was
19 pointing out that we're not creating an
20 impervious surface, because this is talking
21 about in the context of the alteration of
22 terrain. So we're not adding an additional
23 paved surface over the top of the cable, if
24 you will.

1 Q. Okay. I may have misunderstood that.

2 And then looking further down on the
3 page, it says, "Because the underground work
4 will be located within and along the edge of
5 existing roadways," which we know we don't
6 even know, "the underground cable
7 installation work is not likely to create a
8 high potential for impacts to water quality
9 if appropriate BMPs are followed."

10 So, based on some of the things I've
11 mentioned about French drains and things of
12 that nature, I think you would agree that it
13 may be at least worth studying some of that
14 to see if that underground installation could
15 in fact, where it's placed next to streams or
16 wetlands or in wetlands, that that be
17 studied.

18 A. (Tinus) It's certainly a consideration as the
19 engineering is moving forward.

20 Q. I've noted in the Tennessee Department of
21 Environmental and Conservation State Manual
22 that no blasting will be permitted in the
23 excavation of trenches that are parallel or
24 lie within 50 feet of a stream or wetland,

1 including all stream crossings. Does this
2 sound like a sensible BMP?

3 A. (Tinus) I think it's hard to conjecture not
4 knowing what they're planning to do and
5 geologic conditions which we don't have all
6 the information in on yet, so...

7 Q. What does the current New Hampshire law say
8 on this?

9 A. (Tinus) For blasting?

10 Q. Yes, in terms of proximity to streams and
11 wetlands, et cetera.

12 A. (Tinus) That you need to have appropriate
13 blasting protocols in place, Best Management
14 Practices. So, understanding what the
15 underlying materials are, understanding where
16 the water is flowing, certainly understanding
17 how much blasting you're going to need to do,
18 what sort of charges, the amount of
19 detonating material, where the rocks are
20 going to go, I mean, a whole host of factors
21 for each spot where you're doing blasting.

22 Q. So, say you're going to lay the cable -- or
23 trench the cable through a wetland on 116.
24 You get down a few feet and there's ledge and

1 you've got to blast it open. What Best
2 Management Practice is going to cover that
3 particular scenario?

4 A. (Tinus) I don't know. We'd have to get our
5 heads together on that one.

6 Q. Hmm. Okay. I'm going to jump to something
7 new. The next thing I want to talk about is
8 the issue of climate change.

9 With worldwide temperatures rising and
10 changing, rainfall patterns --

11 CHAIRMAN HONIGBERG: Mr. Lakes,
12 just let me stop you.

13 MR. LAKES: Yeah.

14 CHAIRMAN HONIGBERG: Would this
15 be a good time for you to take a break?

16 MR. LAKES: Sure.

17 CHAIRMAN HONIGBERG: Sounds like
18 you were ramping up a new topic.

19 MR. LAKES: Yeah.

20 CHAIRMAN HONIGBERG: All right.
21 So let's take a ten-minute break.

22 MR. LAKES: Yeah, thank you.

23 (Recess taken at 3:08 p.m., and the
24 hearing resumed at 3:25 p.m.)

1 [Mr. Way not present for remainder of
2 afternoon proceedings.]

3 CHAIRMAN HONIGBERG: Mr. Lakes,
4 you may proceed.

5 BY MR. LAKES:

6 Q. So I was going to go on to something new
7 until I came up with a few more questions in
8 between.

9 So, Mr. Tinus, did you mention that
10 there will be more geotechnical boring along
11 the underground route? Was that mentioned by
12 you at all?

13 A. (Tinus) I think they need to do a few more in
14 certain locations, but mostly along the
15 overhead route.

16 Q. Would you agree that it certainly needs to be
17 done on the underground portions where it was
18 in the road and now it's off the road? Maybe
19 there needs to be more found out about that,
20 particularly around wetlands, streams, things
21 of that nature.

22 A. (Tinus) I don't know exactly where they're
23 proposing doing it, so we'll have to wait for
24 the engineers to tell us where they need the

1 additional data.

2 Q. Okay. And finally there's this business with
3 the fly ash and so forth with that meeting
4 that Eversource had that I mentioned, the DOT
5 meeting about the FTB, the fluidized thermal
6 backfill being permeable, acting like a
7 French drain. Would fly ash be more prone to
8 be released from a surface that is not solid,
9 enclosed and encased?

10 A. (Tinus) The way this material behaves is,
11 even though it's permeable, it's even more
12 solid than I think you're indicating. I
13 think this is a constituent of material that
14 starts out as fluid or flowable and then it
15 hardens. It does harden. And again, from
16 the source of the material, it's all tested
17 and approved to meet certain standards,
18 whatever those are. And that's the material
19 that's used everywhere for projects like this
20 and others around the state and New England
21 and other locations in all the uses I've
22 already mentioned. So this is ubiquitous
23 material.

24 Q. Can Eversource give us a written guaranty

1 that no fly ash will come out of the thermal
2 backfill that's being used?

3 [No verbal response]

4 Q. Let's move on. Okay. The issue I want to
5 talk about now is climate change.

6 With worldwide temperatures rising and
7 changing, rising and changing rainfall
8 patterns, future water flow could be
9 restricted. In Brazil, for instance, there
10 are plans to dam the Amazon, but the fear is
11 that there will not be enough water to
12 produce electricity a hundred percent of the
13 time, so other dams on other rivers are being
14 considered to supplement this. So the only
15 solution that developers have developed is to
16 dam and dam and dam more rivers. The fear
17 still persists that if climate change affects
18 output, then the Project will have created
19 deep environmental damage and not fulfilled
20 its goal of continuously supplying
21 electricity. In fact, issues like this with
22 water supply are happening regularly all over
23 the world.

24 Can anybody on this panel today say that

1 10, 15, 20 or 30 years from now that the
2 rivers in Quebec will continue flowing and be
3 able to meet the needs of Quebec and the
4 continuously growing number of transmission
5 lines coming into the U.S.A? Don't all step
6 up.

7 A. (Varney) I have not heard anyone suggest that
8 rivers in Canada would dry up within the next
9 20 years.

10 Q. I wouldn't -- I wouldn't expect it since the
11 Province of Quebec makes so much money off of
12 doing that. I would doubt very much even if
13 they did know they would say it.

14 But basically what I'm saying here is it
15 is possible with what's going on today with
16 climate change that there could be drastic
17 changes in the future that could cause the
18 rivers from the north to dwindle to the point
19 where a project like this could be totally
20 useless.

21 A. (Varney) Highly unlikely.

22 Q. But likely. But possible; right?

23 A. (Varney) Highly unlikely.

24 Q. Okay. And as an addendum to that, isn't it

1 true that Hydro-Quebec is already planning on
2 damming additional sites as a result of the
3 future demand? Perhaps you, Mr. Varney, know
4 more about this.

5 A. (Varney) I don't know about their long-term
6 plans. I do know that they have a project
7 under construction now, La Romaine Project,
8 which is four generating units, I believe.
9 There's information about it that's been
10 provided as part of discovery, I believe by
11 the Applicant. And two of the generation
12 units have already been constructed, I
13 believe about 910 megawatts. Another one is
14 being completed this year. And the final
15 one, which is about 245 megawatts, the final
16 piece of it will be in operation beginning in
17 2020, according to the schedule that was
18 submitted as part of discovery. And I
19 believe it's also on the HQ web site. I
20 believe I saw it there.

21 Q. Okay. So Quebec is probably doing the same
22 thing that Brazil is doing by moving to more
23 and more rivers. Not sure if it's all about
24 water flow. But it continues to put more

1 rivers in danger, as far as future climate
2 change.

3 A. (Varney) What I do know is that the state
4 developed a strategy -- the Government of
5 Quebec developed a strategy to expand their
6 hydroelectric production to go along with
7 wind and other sources to provide for the
8 needs of the province, as well as other
9 provinces in Canada, and also to import to
10 the United States after the needs of Quebec
11 were accomplished. And they've been
12 undertaking these projects independent of
13 Northern Pass. Northern Pass is not causing
14 them to build anything. They have undertaken
15 these projects as part of a government
16 strategy. And I believe that part of their
17 initiative is associated with the fact that
18 it's relatively clean energy and reduces CO2
19 emission in the province and within Canada.

20 Q. All right. We'll talk some more about that
21 later.

22 Continuing on the subject of climate
23 change, I'd like to ask the panel if they
24 believe climate change is real, directly

1 affected by man and a threat to ecosystems
2 around the world. "Yes" or "No" would be the
3 best answer.

4 A. (Varney) Yes.

5 Q. I'd like everybody to answer that question.

6 A. (Carbonneau) Yes.

7 A. (Barnum) Yes.

8 A. (Tinus) Yes.

9 A. (Magee) Yes.

10 MR. LAKES: Please put up
11 Exhibit 45.

12 (Exhibit APOBP 45 marked for
13 identification.)

14 Q. This is Article 5(2) of the Paris Climate
15 Agreement. Note that the parties are
16 encouraged to take action to implement and
17 support a policy which approaches -- which
18 has positive incentives for activities
19 relating to reducing emissions from
20 deforestation and forest degradation, and the
21 role of conservation, sustainable management
22 of forests and enhancement of carbon stocks.

23 Would not the permanent deforestation
24 along the transmission line in New Hampshire

1 and the tremendous deforestation of old and
2 new reservoirs in Quebec be in direct
3 violation of this directive?

4 A. (Varney) As I indicated, the reservoirs are
5 either already completed or under
6 construction and are independent of the
7 Northern Pass Project, not caused or
8 triggered by the Northern Pass Project. And
9 as you know from the frown on your face, you
10 probably know that the construction started
11 before this Application was submitted, well
12 in advance.

13 The other part of your question related
14 to forest cutting. And yes, this project
15 will primarily follow existing rights-of-way,
16 which will minimize the amount of forest
17 cutting that will need to occur associated
18 with the Project. And there'll be a
19 relatively narrow right-of-way within the
20 existing managed forest areas where they will
21 be placing new rights-of-way. In addition,
22 they of course are following some
23 transportation corridors as well. There will
24 be some reduction, but that reduction is a

1 very small percentage of the forest cover
2 within the state. You know, we're the second
3 most forested state in the country. It's
4 obviously well forested in the North Country
5 as well. And the amount of cutting is
6 relatively small in comparison to the total
7 forest cover. I believe it's about
8 .0022 percent. And in terms of numbers, it's
9 a very small fraction of the overall CO2
10 benefits that are associated with the
11 Project. Probably wouldn't even move the
12 decimal point.

13 Q. I do take issue with your statement that
14 Northern Pass will not be a part of the
15 use -- or be part of new construction of
16 reservoirs up in Canada. It really becomes a
17 cog along with the rest of the transmission
18 lines, et cetera, that are being built in the
19 United States which then forces
20 Hydro-Quebec --

21 MR. WALKER: Objection.

22 Q. -- to go further.

23 CHAIRMAN HONIGBERG: Mr. Lakes,
24 don't argue with the witness. Just move on to

1 your next witness.

2 MR. LAKES: Okay.

3 BY MR. LAKES:

4 Q. So, would you agree that Northern Pass will
5 be one of the parties to increased usage of
6 electricity from Hydro-Quebec, which will
7 cause them to continually dam more rivers for
8 export of electricity?

9 A. (Varney) I disagree.

10 Q. Tell me why you disagree.

11 A. (Varney) They have their own policies. They
12 have their own NEPA process. They have their
13 own permitting processes. And I don't know
14 anything about trying to increase number of
15 reservoirs post-Northern Pass. I haven't
16 seen or heard anything about that. And I
17 don't think it's related. It's coming from
18 the existing system, in the same way that we
19 have a ISO-New England grid and we draw out
20 of the grid. In this case, it would be out
21 of their reservoir system, and it's not
22 triggered by the construction of this
23 project. It was started well before this
24 project ever came before the state of New

1 Hampshire.

2 Q. I understand that. But isn't Northern Pass
3 and then the other Northern Passes that are
4 going to happen after that --

5 A. (Varney) You're speculating --

6 (Court Reporter interjects.)

7 A. (Varney) I can't speculate.

8 Q. All right. Let's move on.

9 WITNESS VARNEY: That was my
10 fault. I interrupted him. I'm sorry.

11 MR. LAKES: Please put up
12 Exhibit APOBP 46 from The Concord Monitor.

13 (Exhibit APOBP 46 marked for
14 identification.)

15 Q. This is titled, "Sununu Says New Hampshire
16 Won't Join Climate Alliance."

17 "Republican Governor Chris Sununu says
18 New Hampshire won't join a growing number of
19 states that are pledging to uphold the Paris
20 Climate Agreement following President...
21 Trump's decision to back out."

22 MR. LAKES: Now let's move on to
23 the next exhibit, Campbell.

24 (Exhibit APOBP 47 marked for

1 identification.)

2 BY MR. LAKES:

3 Q. And continuing in this article, it says,
4 "While the initiative was launched last week
5 by Democratic governors in California, New
6 York and Washington, Republican leaders in
7 Vermont and Massachusetts have also signed
8 on. Democratic governors in Connecticut and
9 Rhode Island have made their states part of
10 the coalition," as well. Says, "Our
11 administration looks forward to continued
12 bipartisan collaboration with other states to
13 protect the environment, grow the economy and
14 deliver a brighter future for the next
15 generation." That of course is the governor
16 of Massachusetts, not the governor of New
17 Hampshire.

18 And just going down a little further as
19 I was reading, it says Mr. Sununu said, "You
20 know, it's not my job to go through the whole
21 Accord and look at the in-depth impacts
22 across the country economically... The
23 President has done that, his team has done
24 that, and they've made the decision they feel

1 is in the best interest of the United States,
2 and I stand by that." Even Charlie Baker,
3 the Republican Governor of Massachusetts, the
4 coveted prize of Eversource sees merit in
5 this alliance.

6 Are you aware, Mr. Varney, that Mr.
7 Sununu is a staunch supporter of Northern
8 Pass and was for ramming the Project through
9 the White Mountain National Forest even
10 before the underground was introduced?

11 A. (Varney) No.

12 Q. Are you aware that he's a staunch supporter
13 now with the way it is?

14 A. (Varney) I've read that he is in support of
15 the Project in the media, general media. I
16 have not spoken with him directly.

17 Q. I'd like to ask each member of the panel if
18 they agree with Mr. Sununu not joining the
19 Climate Alliance. "Yes" if you agree with
20 Mr. Sununu, or "No" if you do not agree.

21 MR. WALERS: Objection.
22 Relevance, Mr. Chairman.

23 CHAIRMAN HONIGBERG: Mr. Lakes,
24 how is this relevant?

1 MR. LAKES: Well, my retort I
2 guess to that is I look at Mr. Sununu as being
3 the 900-pound elephant in the room. He's head
4 of the Executive Branch, the DOT, DES, SEC.
5 They're all under his purview. And his
6 environmental leanings are appropriate to
7 explore since he has made his position quite
8 clear. And at the end of the day, I want to
9 find out if, again, the panel, which earlier
10 did say that they're in favor of the Paris
11 Climate Accord, is not in agreement with Mr.
12 Sununu's leaning in that regard.

13 CHAIRMAN HONIGBERG: I don't see
14 how this is relevant. I'm going to sustain the
15 objection.

16 MR. LAKES: Okay. Let us move
17 on.

18 BY MR. LAKES:

19 Q. Moving on to maybe simpler things.

20 During construction and after, will any
21 herbicides or pesticides be used along the
22 underground route?

23 A. (Carbonneau) Eversource currently does not
24 use pesticides and herbicides in New

1 Hampshire. And to my knowledge, there are no
2 plans to do that in the future. I can't
3 speak to what New Hampshire DOT does or
4 doesn't do. And to the extent that this
5 could overlap their right-of-way, I don't
6 know.

7 Q. Okay. Thank you. That's great to know.

8 How many environmental monitors will
9 police the underground route? Does anybody
10 know that?

11 A. (Carbonneau) We don't know the exact number
12 of environmental monitors. We do expect
13 there will be more than one. They will be
14 deployed as needed around the state as work
15 occurs in different locations. But I can't
16 tell you how many.

17 Q. Okay. Since Northern Pass is hiring these
18 monitors, why should we believe their
19 intentions to do good by the people versus
20 Eversource's instructions?

21 A. (Carbonneau) Their role is to make sure the
22 Project complies with all of the permit
23 conditions and all of the regulations that
24 will apply to the work. They have the

1 ability to stop the work if there is a
2 compliance problem that is significant. It's
3 in the Applicant's best interest to make sure
4 they comply with all of the requirements
5 because the consequences of not complying are
6 very substantial. They could have their work
7 stopped. They could be fined. There's lots
8 of issues. It's in their best interest to
9 make sure that they are in compliance with
10 all of the permit conditions and rules.

11 Q. Okay. Will there be proactive monitoring and
12 remediation of trenching in HDD sites to
13 verify such issues as trench settling, frost
14 heave issues, precipitation, pooling of water
15 or any other remaining impacts associated
16 with construction? And how long will this
17 monitoring go on for?

18 A. (Carbonneau) Jake, do you have any --

19 A. (Tinus) I would just say I think some of
20 those issues were raised by DOT. So I think
21 the construction guys and engineering folks
22 are in discussions over issues like that.
23 DOT is certainly concerned about the roads
24 after we go through them, as have been

1 expressed by some intervenors, too.

2 MR. LAKES: Okay. Next I'd like
3 to put up Exhibit No. 48.

4 (Exhibit APOBP 48 marked for
5 identification.)

6 Q. This is a letter to Craig Rennie of the DES,
7 sent by George Dana Bisbee. This was a
8 response to comments submitted by the Society
9 for the Protection of New Hampshire Forests,
10 dated April 21st, 2016.

11 Please put up number 49.

12 (Exhibit APOBP 49 marked for
13 identification.)

14 BY MR. LAKES:

15 Q. It's part of the same letter and says the
16 following about complete burial. This is
17 from Mr. Bisbee. "Even if complete burial of
18 the Project were practicable, impacts would
19 be less only if the burial occurred in the
20 disturbed roadbed or shoulder of a
21 transportation corridor. Outside of a
22 disturbed road footprint, burial impacts
23 could be greater than overhead structure
24 impacts in existing transmission ROWs. This

1 would be the case, for example, along
2 interstate highways like I-93, where DOT
3 restrictions require infrastructure, if
4 allowable, to be located at the edge of
5 highway corridor far outside the disturbed
6 roadbed. Unlike a linear... line where there
7 is little opportunity to change the location
8 to minimize impact, NPT's design reflects the
9 major effort taken [sic] to avoid and reduce
10 impacts by shifting transmission structure
11 foundations out of wetlands along the
12 overhead line."

13 My contention is that the same argument
14 that Mr. Bisbee is making for I-93 holds
15 entirely true for the whole underground route
16 of 302, 18, 116, 112 and Route 3. Would the
17 panel care to comment?

18 A. (Carbonneau) My understanding is that there
19 may be different standards associated with a
20 limited access highway such as I-93 and the
21 need to put the construction out of the edge
22 of the right-of-way because access to the
23 construction sites, my understanding is it's
24 not a allowed from the highway or from the on

1 and off ramps. So access would require
2 constructing a whole access path and road and
3 trench at the very outer edge of the
4 right-of-way. That was my understanding.

5 Q. May I interrupt?

6 A. (Carbonneau) That may not be the case on some
7 of the secondary roads.

8 Q. If I could, the same rules apply to the roads
9 on which we live. Exactly the same rules.
10 They don't change on I-93. They don't change
11 on 116. They're the same. And if the DOT
12 forces them to follow the Manual and put it
13 as far over to the side, then they're
14 creating as much if not more destruction that
15 would happen along I-93. Do you agree with
16 that?

17 A. (Carbonneau) I haven't evaluated either
18 alternative that is outside of the very edge
19 of the right-of-way. I'm sure the resources
20 within those locations differ. I can't say
21 by how much. But certainly if you are not in
22 the disturbed roadbed, there are greater
23 impacts to natural resources if you are out
24 at the very edge of the right-of-way and it

1 happens to run through people's yards and
2 wetlands and streams that are not culverted.

3 Q. Okay. Going to move on. Mr. Varney, I see
4 you have a very colorful resume.

5 A. (Varney) Thank you.

6 MR. LAKES: Please put up
7 Exhibit APOBP 50. I don't know whoever came up
8 with those numbers...

9 (Exhibit APOBP 50 marked for
10 identification.)

11 BY MR. LAKES:

12 Q. At the bottom of that particular exhibit it
13 says, From 1989 to 2001, I served as
14 Commissioner of the New Hampshire Department
15 of Environmental Services. By virtue of that
16 position, I also served as a member and as
17 Chairman of the New Hampshire Site Evaluation
18 Committee for that same period of 12 years;
19 is that correct?

20 A. (Varney) Yes.

21 Q. Now going to ask you some questions with
22 regard to your past experience in relation to
23 your present capacity as president of
24 Normandeau.

1 Have you, in your capacity as president
2 of Normandeau and a contractor of Eversource,
3 had face-to-face meetings with DES?

4 A. (Varney) Yes.

5 Q. Have you, in your capacity as president of
6 Normandeau and a contractor with Eversource,
7 had face-to-face meetings with the SEC?

8 A. (Varney) Only at the hearings along with the
9 public.

10 Q. Okay. In your own mind and actions, how do
11 you see your role in this project within the
12 context of your job history?

13 A. (Varney) My job history?

14 Q. Yeah, as being a SEC Chairman, DES and so
15 forth, and now you're sitting on the other
16 side of the table. Just wondering what goes
17 on in your mind in terms of how you address
18 that internally.

19 A. (Varney) Stick to the facts, stick to the
20 science and be honest.

21 Q. Okay. Do you think that your past experience
22 could unduly influence appointed officials?

23 A. (Varney) No.

24 Q. So, moving on, Mr. Varney. In your Prefiled

1 Testimony, you said this about the purpose of
2 your testimony. And this actually is on the
3 same page, just at the top. It says, "What
4 is the purpose of your testimony?" And you
5 answered, "The purpose of this testimony is
6 to provide the SEC with my assessment of the
7 benefits that the operation of Northern Pass
8 Transmission Project... will have on air
9 quality and the Project's consistency with
10 the goals of state, regional and national air
11 quality and climate quality" -- sorry -- "and
12 climate change policies." And I think, just
13 to elaborate on that... that you have
14 mentioned in your Prefiled Testimony as well
15 that you concur with Julia Frayer's London
16 Economics Analysis; correct?

17 A. (Varney) I've used her analysis and her
18 modeling to calculate the significant
19 emission reductions and significant
20 greenhouse gases that are associated with the
21 Project.

22 Q. And you have a lot of experience from prior
23 work in doing that sort of thing; correct?

24 A. (Varney) I've been involved in climate change

1 and air-quality issues for many years.

2 Q. The basic premise being that, you know, as
3 part of these -- well, let me back up a
4 little bit.

5 She did say that the Northern Pass line
6 would avoid 3.2 metric tons of CO2 in New
7 England. Do you agree with that?

8 A. (Varney) Those were the numbers that she
9 calculated for the Project in her most recent
10 update, which were just very close to her
11 original estimates.

12 Q. Yeah, I'm not trying to take it apart.

13 A. (Varney) No, that's okay.

14 Q. I can't understand half of the things she
15 says.

16 But isn't her basic premise that clean
17 hydropower is the key asset in reaching these
18 carbon savings? Is that reasonable to say?

19 A. (Varney) It's the displacement of fossil fuel
20 generation in New England.

21 Q. Do you know how her calculations were arrived
22 at?

23 A. (Varney) Through a modeling effort.

24 Q. So did you study those models --

1 A. No.

2 Q. -- and so forth?

3 A. No.

4 Q. So you agree with it, but you don't know how
5 exactly it was calculated.

6 A. (Varney) I have accepted her numbers which
7 have been presented to the SEC and her
8 reports and testimony that was associated
9 with that.

10 MR. LAKES: Okay. Now I'll move
11 on to Exhibit 51.

12 (Exhibit APOBP 51 marked for
13 identification.)

14 BY MR. LAKES:

15 Q. So what you're going to be seeing here is
16 this information is based on a groundbreaking
17 study of emissions by Washington State
18 University, by experts in this field. I just
19 outlined the title, which is "Greenhouse Gas
20 Emissions from Reservoir Water Surfaces: A
21 New Global Synthesis" is the title of the
22 report.

23 MR. LAKES: Please put on
24 Exhibit 61 [sic]. And please excuse me. I

1 have to go back and forth on these things. I
2 have bad eyes.

3 Q. Anyway, the gist of this report says that
4 hydropower is usually touted as clean energy,
5 but a new study has found man-made reservoirs
6 are producing far more greenhouse gases than
7 previously believed, with most of those
8 emissions in the form of methane, a potent
9 climate warming gas. It goes on to say, We
10 weren't super-surprised at the magnitude of
11 the emissions. But one thing we were
12 surprised to see is the per area rate of
13 methane emissions. They are 25 percent
14 higher than previously thought.

15 This is Washington State University
16 researcher Bridget Deemer, lead author of the
17 study.

18 And they go on to say methane emissions
19 contribute about 80 percent of the total
20 global warming impact of the gases from
21 reservoirs. The remaining emissions are
22 carbon dioxide and nitrous oxide. Methane is
23 34 times more potent than carbon dioxide in
24 gathering heat in the atmosphere, and

1 emissions have previously been difficult to
2 measure. But new research is using tools
3 such as bubble tracking sonar to measure
4 methane bubbles.

5 MR. LAKES: And it goes on to
6 the next page, Campbell, on 62 [sic].

7 BY MR. LAKES:

8 Q. Researchers from the Washington State
9 University, along with colleagues from around
10 the world, looked at the results of more than
11 a hundred studies of emissions from 250
12 reservoirs around the world. The startling
13 results are leading the calls for reservoir
14 emissions to be included in calculations made
15 by countries and organizations such as the
16 Intergovernmental Panel on Climate Change
17 when gauging greenhouse gas emissions.

18 So my question to you, Mr. Varney, is:
19 Did Ms. Frayer use the amount of methane
20 being produced off of the reservoirs as part
21 of her calculations?

22 A. (Varney) She did while calculating the social
23 cost of carbon, which she testified to during
24 this proceeding.

1 Q. Can you explain that further? What do you --

2 A. (Varney) She made a deduction as she was
3 making her calculations associated with the
4 cost of carbon, the social cost of carbon and
5 the economic benefits associated with those
6 reductions and avoided costs and so on. So
7 she did account for that.

8 And I would also just say that, again,
9 in the information that's been provided in
10 response to this, to some comments about this
11 study, that generally speaking, methane
12 emissions are lower in northern climates than
13 they are in southern climates. So this is a
14 worldwide study. And your decomposition
15 associated with the reservoir in a tropical
16 climate or a very warm climate tends to be
17 much higher. And that's why some of the more
18 northern states have not made a deduction
19 because of the mixing zones and the
20 oxygenation in the water supply in those
21 reservoirs and the very low methane emissions
22 associated with them. So there are some very
23 low methane emissions or CO2 emissions
24 associated with existing reservoirs that have

1 been in place for a long time. They tend to
2 be higher with new construction and then
3 quickly drop off during the first ten years
4 or so is my understanding of the issue, and
5 which has been submitted on the record, I
6 believe.

7 Q. Okay. Do you know what calculations she used
8 for the methane? Are you aware of the
9 numbers, how they impacted the final carbon
10 dioxide figure?

11 A. (Varney) Well, it didn't affect her estimates
12 for the emission reductions in New England at
13 all. It was under the calculation related to
14 the social cost of carbon, so it remains at
15 the 3.2 figure. The draft EIS, I believe
16 before and after, I believe their
17 consultants, which is a bit outdated because
18 it was in 2015, was about 2.9.

19 Q. So the methane was basically buried in some
20 social cost of carbon figure as opposed to
21 being put into the --

22 A. That's where she --

23 (Court Reporter interrupts)

24 Q. -- in the actual CO2 estimate of 3.2 million

1 metric tons?

2 A. (Varney) If I could again further explain
3 that the generation occurs in Canada, and it
4 would be in their emission inventory, and
5 that's where it's accounted for, not in New
6 Hampshire's inventory, not in New England's
7 inventory. There's actually a reduction in
8 fossil fuel generation, which is the
9 3.2 million metric tons reduction that we're
10 talking about for this project.

11 Q. Yup. Well, we all live in the same world,
12 so, you know, parsing numbers from here to
13 there, it's still being produced.

14 Many experts in the field, based on the
15 information that hydropower is no cleaner
16 than gas-fired power plants -- that's after
17 studies of this particular, the field studies
18 that were taken by the Washington State
19 University.

20 Are you aware, Mr. Varney, that in
21 addition to methane gas, reservoirs are
22 polluted with methyl mercury, have decimated
23 salmon populations, physically displaced and
24 culturally eviscerated Pessamit Innu Indians?

1 A. (Varney) I disagree with that statement. But
2 I am aware there is mercury associated with
3 reservoirs and that there have been some
4 studies, and usually those studies conclude
5 that there need to be more studies.

6 Q. That's unfortunate, isn't it, when the truth
7 is there and people don't recognize it.
8 Would you agree --

9 A. (Varney) The scientists are the ones that are
10 recommending more studies at the conclusion
11 of their studies.

12 Q. Well, unfortunately, and you may agree with
13 this as well, there's too many scientists
14 that you can pay to come up with whatever you
15 want to satisfy your own needs. Would you
16 agree with that?

17 A. (Varney) I disagree strongly.

18 Q. Then I'm not sure --

19 A. (Varney) I think there are a lot of people
20 with very high integrity in this world.

21 Q. I totally agree with you. And I know there's
22 a lot of good people in the world. But we
23 know that money talks. And you don't believe
24 that.

1 A. (Varney) I do not believe it. I think that
2 there may be some people in this world that
3 are influenced. But by and large, we have
4 many good scientists who do peer-reviewed
5 work and are able to stand by that
6 peer-reviewed work. We have many great
7 scientists in this world, and we're lucky to
8 have them.

9 Q. Okay. So you said you disagree with some of
10 the other things I said. Do you disagree
11 that the Pessamit Indian population has been
12 physically displaced and culturally
13 eviscerated?

14 A. (Varney) I'm simply saying that there are
15 various degrees of mercury in the environment
16 and that we've made a lot of progress in
17 reducing mercury in our environment and the
18 build-up of mercury in the food web. And so
19 I would not use such extreme language.

20 Q. Well, you didn't answer my question about the
21 Indians. We agree on the methyl mercury.
22 But what about the Indians?

23 A. (Varney) There have -- obviously in some
24 areas there have been impacts. But again, I

1 would say that as it relates, if you're
2 speaking of Canada, they have a process, a
3 NEPA process, and they review all of those
4 issues as part of their siting process that
5 they have within Canada.

6 Q. If the Indians are happy with their way of
7 life as it is today, why do you think that
8 René Simon came down, the Chief of the
9 Pessamit Innu, to talk about the devastating
10 effects of these dams on their population?
11 Why did he come? I'm sure it's not for our
12 scenery.

13 MR. WALKER: Objection.

14 Q. Why did he come?

15 CHAIRMAN HONIGBERG: There's an
16 objection to that question.

17 What's the grounds for the
18 objection?

19 MR. WALKER: Calls for
20 speculation as to what the Indians thought.

21 CHAIRMAN HONIGBERG: It's not a
22 bad objection, Mr. Lakes. Do you think -- what
23 makes -- do we think Mr. Varney has any
24 knowledge about that?

1 MR. LAKES: Well, all I can
2 answer is he may. But I may not hear what I
3 want to hear, so I will move on.

4 BY MR. LAKES:

5 Q. My last question will be with regard to Julia
6 Frayer's mathematical estimates on
7 everything, since everything's turned into a
8 number it seems.

9 What type of mathematical formula do you
10 put the type of devastation that's going on
11 in Canada to justify this project?

12 A. (Varney) As I've indicated, this project is
13 not causing devastation in Canada.

14 Q. Let's move on. And I think I'm to my last
15 question.

16 Okay. Since all of you on the panel are
17 professionals, Ph.D.s, doctors, et cetera,
18 learned in your fields of expertise, I'd like
19 you all to answer the following question with
20 a "Yes" or "No": Isn't it true that the very
21 best BMP, as far as wetlands are concerned,
22 wildlife preservation, preservation of
23 habitat, preservation of forest, that the
24 least destructive path through New Hampshire

1 is to not build a project at all? Yes or no?
2 I'd like everybody on the panel to answer
3 that, please.

4 A. (Varney) I'll just start with the fact that
5 you referred to this as a "BMP," and a BMP
6 suggests something is happening, and you're
7 suggesting the no-action alternative. We
8 were not engaged in evaluating each of the
9 alternatives, including the no-action
10 alternative. And with that said, always when
11 you do something in the environment, whether
12 you build a house or you drive a car, there's
13 environmental impacts associated with it.

14 Q. The rest of the people on the panel, "Yes" or
15 "No."

16 A. (Carbonneau) I agree with Bob. If you need
17 energy, there's going to be some kind of
18 impact. If you don't build a project, this
19 particular project, you won't have the
20 impacts associated with this particular
21 project, but you might get something else.

22 A. (Barnum) I would agree with what Lee just
23 said. If you don't build a project, there
24 will be no impact, but there might be

1 something else.

2 A. (Magee) I agree with both Lee and Bob. If
3 you don't build a project, there'll be
4 implications in other ways.

5 Q. Could you please speak up? I couldn't catch
6 a word you said.

7 A. (Magee) I agree with the others. If you
8 don't build the Project which we worked on
9 and involved in evaluating, then certainly
10 there'd be a reduction of environmental
11 impacts or no environmental impacts, but
12 there'd be other implications.

13 A. (Tinus) We're not here evaluating no project.
14 We're evaluating a project, and that's what
15 we're asking for the evaluation of. We
16 presented a project. That's why we're here.

17 MR. LAKES: Thank you very much.
18 I'm done with my cross-examination.

19 CHAIRMAN HONIGBERG: Mr.
20 Cunningham.

21 CROSS-EXAMINATION

22 BY MR. CUNNINGHAM:

23 Q. My name's Art Cunningham. I'm an attorney,
24 mostly retired. I represent Kevin Spencer

1 and Mark Legasse. Kevin and Mark are
2 building a lodge in a campground in Stark,
3 beautiful Stark. And this project is part of
4 the overhead project, and the overhead lines
5 will run right behind their lodge. But I'm
6 here mainly today -- and I think I can be
7 brief. When I cross-examined the
8 construction panel, I had questions about
9 blasting. And they advised that the
10 environmental panel could follow-up on the
11 blasting issues. So, Mr. Tinus, you're in
12 the barrel.

13 A. (Tinus) Hopefully I can help.

14 Q. So I'm concerned about -- and I think by
15 virtue of your earlier testimony, you
16 discussed my questions or somebody's
17 questions with the construction panel. And I
18 think you already told us that blasting could
19 result in nitrates in groundwater and in
20 folks' drinking water wells.

21 A. (Tinus) That was one of the parameters that
22 might be tested for.

23 Q. Yeah. Can you tell me about nitrates?

24 A. (Tinus) They're a substance that is part of

1 the mix for a blasting material, ammonium
2 nitrate fertilizer, I believe. And so
3 nitrates, if not properly combusted, can be
4 liberated into water.

5 Q. And do you know what the health effects of
6 nitrates are on the human body?

7 A. (Tinus) I think you want nitrate levels to be
8 low. I'm not a human toxicologist, though.

9 Q. And do you know what the nitrate level or the
10 water quality standard for nitrates is in New
11 Hampshire?

12 A. (Tinus) I can't recall that exact number.

13 Q. Okay. And what exactly are the health
14 effects, if you know?

15 A. (Tinus) I don't really know, sir.

16 Q. Do you know that nitrates cause "blue
17 babies"?

18 A. (Tinus) I've heard of that.

19 Q. And do you know what "blue babies" are?

20 A. (Tinus) Other than the name suggests, it's a
21 condition that somehow affects the
22 metabolism, I presume.

23 Q. And the oxygen levels in a baby; does it not?

24 A. (Tinus) Yeah, I think so. I did read

1 something on it quite some time ago.

2 Q. So you and I can agree that infiltration of
3 nitrates into groundwater is dangerous.

4 A. (Tinus) If there's nitrates getting into
5 water from blasting, it could be dangerous.

6 Q. And you're the water quality expert. Can you
7 explain to the panel and to all the
8 intervenors that are worried about blasting
9 how that works? How does nitrate from
10 blasting get into groundwater?

11 MR. CUNNINGHAM: Sorry.

12 (Discussion off the record.)

13 BY MR. CUNNINGHAM:

14 Q. So how is it that nitrate gets into
15 groundwater and into people's wells?

16 A. (Tinus) If material isn't properly combusted,
17 then it can get into the water supply. In
18 other words, if the charge doesn't go off
19 correctly, if there's too much used, an
20 incorrect dosage --

21 Q. And do you know how -- I heard you say in an
22 earlier, a good cross-examination, that the
23 larger the area makes a difference, the
24 blasting area. It was a good question about

1 significant blasting down on I-93 in Windham.

2 Are you familiar with that project?

3 A. (Tinus) Yes, as mentioned by someone
4 testifying earlier.

5 Q. And can you explain to the panel and to the
6 other intervenors how the size of the Project
7 matters?

8 A. (Tinus) Well, presumably larger quantities of
9 rock would require a large amount of
10 blasting.

11 Q. Well, explain to me how the blasting takes
12 place. How does the blasting emulsion or the
13 ANFO, ammonium nitrate, get into the water in
14 the first place?

15 A. (Tinus) I don't exactly know. I've seen it
16 in the field. They drill holes where the
17 material is put in with the fuel oil and it's
18 ignited by charges. But that's my extent of
19 understanding.

20 Q. So I understand blasting. They drill holes
21 at whatever depth is necessary, and then they
22 pump the ANFO or other blasting emulsion into
23 the hole.

24 A. (Tinus) Yes, that's what I understand.

1 Q. So what difference would it make what the
2 size of the blast area would be if they're
3 pumping ANFO or blasting emulsion into a
4 drill hole for blasting.?

5 A. (Tinus) Well, part of the planning for such
6 an event is an understanding about the nature
7 and characteristics of the rock, where the
8 water table is, where the water is flowing,
9 and then, you know, making the correct
10 determination to use the right dosage of
11 blasting material so that you don't have the
12 issues that you're talking about. And as we
13 mentioned before, and I know the construction
14 panel mentioned, part of the planning effort
15 will include adherence to the DES guidance on
16 this matter.

17 Q. And let's -- I've got an exhibit. I'm going
18 to show it to you.

19 This is a DES exhibit that was prepared
20 as a result of the issues that arose in
21 Windham. Can everybody see it? And this
22 exhibit is going to be Dummer Stark No. 60.
23 That's not been marked previously.

24 (Exhibit DNA 60 marked for

1 identification.)

2 Q. Could we just take a look at that, Mr. Tinus.
3 Look at No. 1, contamination of groundwater
4 resulting from release of regulated or
5 unregulated substance due to groundwater.
6 And look down to the subparagraphs,
7 incomplete combustion with blasting bore
8 holes. Do you agree with that statement?

9 A. (Tinus) Yes.

10 Q. The injection of substances used for blasting
11 into blasting bore holes that intersect a
12 fracture network resulting in the release of
13 substance beyond the influence of a blasting
14 area. I think that's a good question to ask
15 you.

16 How does that work in groundwater? How
17 would that blasting material infiltrate
18 groundwater through fractures in rock?

19 A. (Tinus) Well, I mean, I think as it's stated
20 in here, it could flow along with the water
21 through the rock.

22 Q. And is there a range that that water can flow
23 in a groundwater aquifer?

24 A. (Tinus) Yeah, and it varies from site to

1 site. And that kind of background
2 information needs to be taken into
3 consideration.

4 Q. And do we have that background information in
5 this docket?

6 A. (Tinus) Groundwater flow rates?

7 Q. Yes.

8 A. (Tinus) To my knowledge, no, not in the
9 docket. The contractors are typically
10 responsible for obtaining this information to
11 help them size the appropriate blast.

12 Q. Has anybody in the Project, to this date of
13 record in this docket, done any groundwater
14 aquifer analysis that would help this
15 Committee make this decision?

16 A. (Tinus) No, it's not something that was asked
17 for by DES, nor is it typically done. Again,
18 I think the construction panel testified that
19 the amount of blasting is not expected to be
20 significant. The example that was
21 illustrated earlier, my understanding was a
22 much bigger, larger -- you know, they were
23 taking down a hillside, a giant bedrock area
24 several hundreds or thousands of feet long.

1 That's a very substantial cut. We're not
2 having anything like that with this project.

3 Q. But we don't know that for sure, do we,
4 because they haven't done a geophysical
5 examination, for example, of the overhead
6 route.

7 A. (Tinus) But even in those locations there's
8 expected to be very little blasting. I
9 believe Ken Bowes testified to that.

10 Q. But my point is we don't know that yet, do
11 we? For example, in Dummer, Stark and
12 Northumberland, there's going to be 320
13 foundations for monopoles. And I asked them
14 specifically which of those 320 Dummer,
15 Northumberland, Stark foundation holes will
16 require blasting, and they couldn't answer
17 it.

18 A. (Tinus) They should be able to have an answer
19 to that once they get the geotechnical
20 borings done out there. But they haven't
21 done those yet along the right-of-way.

22 Q. As of this date we don't know the answer to
23 that question, do we?

24 A. (Tinus) We do not know the answer to that

1 question right now, no.

2 Q. I note in Brandon Kurtman's(?) evaluation of
3 blasting practices, he suggests that
4 municipalities enact blasting ordinances to
5 protect against dangers of blasting and
6 contaminating groundwater aquifers. What
7 official entity is going to do that kind of
8 regulatory oversight in the context of this
9 project since no municipalities are permitted
10 to be involved?

11 A. (Tinus) I don't have an answer for that. I
12 don't know. I will say, though, that the
13 concepts presented in this document have
14 already been agreed to by the client. So any
15 of the pre-blast survey, the planning, a lot
16 of the elements that we've included in this
17 document are going to be considered in how
18 they go about the work.

19 Q. Okay. I think we've already agreed that no
20 pre- blast survey has been done of the
21 groundwater aquifers in blast areas.

22 A. (Tinus) That's true. But that will happen.
23 In terms of understanding the characteristics
24 of the nature of what's going on under the

1 ground, they have to have that information in
2 order to make an intelligent decision on how
3 much of a charge to use.

4 Q. And when will we know that information so we
5 can assure all the folks that are going to be
6 subject to blasting?

7 A. (Tinus) I don't know when the geotechnical
8 borings are up for -- I don't know. But not
9 until we get a certificate for site and
10 facility --

11 Q. So we won't know that until --

12 (Court Reporter interjects)

13 A. (Tinus) I believe it's after we get a
14 certificate or if we get a certificate of
15 site and facility.

16 Q. So the risk of blasting will only be known if
17 and when those geotechnical borings are done
18 after the certificate of site and facility?

19 A. (Tinus) I think so. And, you know, DES has
20 indicated that, you know, for example,
21 following this plan, that we've addressed
22 their concerns over this issue.

23 Q. And after pre-blast surveys are done?

24 A. (Tinus) I don't understand the question.

1 What after pre-blast?

2 Q. Well, I'm talking about analysis of aquifers,
3 groundwater aquifers.

4 A. (Tinus) You know, the contractors have a lot
5 of planning to do yet on all of these -- this
6 is one plan that will be required. There's a
7 lot of them. But that's just being
8 undertaken this summer and fall, in terms of
9 how these are going to lay out specifically
10 and the timing of them. They're all due 90
11 days prior to construction. So that I can
12 tell you is a requirement out of the permit
13 letter.

14 A. (Carbonneau) And if I could point out that
15 this Northern Pass Project has to comply with
16 the 401 Water Quality Certificate. And my
17 understanding is these guidelines probably
18 are for municipalities to use in the event
19 that there isn't state oversight of the
20 blasting work that's being done. In this
21 case, there is going to be all kinds of state
22 oversight of the work. And all of the Best
23 Management Practices that have been proposed
24 and associated with actual blasting have to

1 be complied with, as well as all of the
2 water-quality standards that are associated
3 with the DES approvals which cover a lot of
4 these issues.

5 Q. Well, that's your general answer to
6 everything; is it not?

7 Just a few more questions. Both of you
8 work for Normandeau, or three of you do?

9 A. (Carbonneau) Four of us do.

10 A. (Varney) Four.

11 Q. Four of you work for Normandeau. Can I ask
12 you a couple questions about your
13 relationship with Eversource? How long has
14 that relationship been in place?

15 A. (Carbonneau) You mean how long has Eversource
16 been a client?

17 Q. Yes.

18 A. (Carbonneau) For quite some time in different
19 capacities. Our company has worked for
20 Public Service Company on a variety of
21 projects for some of their fisheries work on
22 the Merrimack River. We've done several
23 transmission-related projects for them in the
24 past. They're one of many of our

1 private-sector clients. And we have a whole
2 array of different client types. Energy is
3 just one sector.

4 Q. I'm particularly interested in Eversource.
5 How many projects have you done for
6 Eversource?

7 A. (Carbonneau) Oh, I wouldn't know.

8 A. (Varney) I honestly don't know.

9 Q. And it extends back quite some years; does it
10 not?

11 A. (Varney) Yes, and many other competitors of
12 Eversource and many government agencies as
13 well.

14 Q. And would you be good enough to tell me what
15 your rate, your hourly rate is? I assume
16 you're on an hourly rate. Could you tell me
17 what your hourly rate is on the Northern Pass
18 Project?

19 A. (Varney) I don't recall. It's my normal
20 rate. There's no elevated rate.

21 Q. And could you tell us what that rate is?

22 A. (Varney) I can't recall.

23 Q. Anybody else on the Normandeau Group, from
24 the Normandeau Group?

1 A. (Varney) It changes every year with a rate
2 sheet, so we generally wouldn't know.

3 Q. Did Normandeau work on the EIS for the
4 Department of Energy?

5 A. (Varney) Yes, for a brief time. And we then,
6 due to some concerns about potential conflict
7 of interest associated with our role in
8 working on the permitting side, we stepped
9 aside and Eversource hired another company
10 to -- or recommended another company, I
11 should say. It was DOE that selected them in
12 that role.

13 Q. Is it fair to say that the Department of
14 Energy asked you to step aside because of
15 your close relationship with Eversource?

16 A. (Varney) We stepped aside voluntarily.

17 Q. At their suggestion or yours?

18 A. (Varney) It was a consensus opinion. We had
19 no interest in raising that issue when it was
20 a perception and so we stepped aside
21 voluntarily.

22 MR. CUNNINGHAM: Thank you, Mr.
23 Chairman, that's all the questions I have.

24 CHAIRMAN HONIGBERG: Ms. Lee,

1 are you in a position to go?

2 Off the record.

3 (Discussion off the record)

4 CHAIRMAN HONIGBERG: All right.

5 We're ready to go. Ms. Lee, now you may start.

6 MS. LEE: Thanks.

7 CROSS-EXAMINATION

8 BY MS. LEE:

9 Q. My name is Mary Lee. I live in Northfield.
10 And I have shown the map, the tax map for the
11 town of Northfield, for my property. And I
12 did show this to the construction panel, but
13 this has to do with the wetlands. This Lot
14 7405 right here is my lot. And the line will
15 go through one corner here. And I have an
16 odd lot because it's built in the zoned
17 construction area of Northfield. It's also a
18 part of a Groundwater Protection District.
19 This long dashed line right here is part of a
20 groundwater protection area. The note says,
21 "Conservation zone begins 500 feet west and
22 500 feet west of Oak Hill Road." The name of
23 this road here -- this is a dirt road where I
24 live off of. Oak Hill Road is paved. When

1 you come on Oak Hill Road and you get onto
2 the dirt road, Fiddler's Choice, this is all
3 dirt. Right now, this morning, as I came
4 here after the hard rain last night, it's all
5 rutted. In order to get to my property, you
6 go up the dirt road and then you go up in
7 this right-of-way, which is my shared access,
8 deeded right-of-way which will be used for
9 construction access to build the 345 kilovolt
10 line and it's going to go through this
11 property. But if I walk the two tenths of a
12 mile to get to my property here, it's only
13 wide enough for my commuting vehicle, a small
14 compact SUV. This is a Class V road. It's
15 maintained by the town. If you go beyond a
16 certain point, it turns into Class V and it's
17 not really maintained by the road at all --
18 by the town at all.

19 The second note here says, "Groundwater
20 Protection District extends from limits shown
21 to the Merrimack River." So the plan is for
22 the line to go through part of the property,
23 including going down to the Merrimack River.
24 And I live on the line between Boscawen and

1 Canterbury and Franklin, so it's all
2 conservation. And it's very, very remote.
3 But I just wanted your panel to be aware that
4 this line is planned to be expanded and have
5 construction pads built and also be accessed
6 by the construction crew, as I learned, using
7 my driveway.

8 CHAIRMAN HONIGBERG: Miss Lee,
9 what do you want to know from the panel?

10 BY MS. LEE:

11 Q. And here's my question: Who on this
12 environmental panel has a direct experience
13 with environmental monitoring in New
14 Hampshire? I know that the construction
15 panel, someone mentioned there's a lot of
16 construction going on all the time by
17 Eversource --

18 CHAIRMAN HONIGBERG: Okay.
19 Stop. Stop. Okay. Your question was who on
20 the panel has environmental monitoring
21 experience.

22 MS. LEE: Yes.

23 CHAIRMAN HONIGBERG: Why don't
24 we have them answer that question.

1 MS. LEE: Thank you.

2 A. (Carbonneau) There are several people at
3 Normandeau that have done environmental
4 monitoring of right-of-way projects for
5 Eversource.

6 CHAIRMAN HONIGBERG: Ms.
7 Carbonneau, is there anyone on the panel who
8 has that experience?

9 WITNESS TINUS: I do.

10 WITNESS CARBONNEAU: I have a
11 little, and Jake also has some.

12 CHAIRMAN HONIGBERG: All right.
13 So, Mr. Tinus and Ms. Carbonneau both.

14 BY MS. LEE:

15 Q. So you have some experience with the
16 environmental monitoring. And can you give
17 an instance of how an environmental monitor
18 was actually called in and avoidance and/or
19 mitigation resulted? Can you give me a
20 concrete example of what would happen with an
21 environmental monitoring of working in
22 wetlands or conservation areas or in
23 Groundwater Protection Districts?

24 A. (Carbonneau) Well, most of the work takes

1 place before the construction to plan
2 appropriately so that avoiding and minimizing
3 impacts takes place before they even get to
4 the construction process. Once construction
5 starts, the environmental monitor is
6 responsible to make sure that wetland matting
7 is put down in the proper place, that erosion
8 and sedimentation controls either are
9 shown -- put in as shown on the plans, or if
10 there is an alternative that is a better
11 technique than was planned is used. They are
12 responsible for verifying that and getting
13 sign-off that that is okay. If there's any
14 modifications that need to be made in the
15 field, the environmental monitor is
16 responsible for documenting those. And if
17 necessary, if they involve a change in impact
18 area, they need to document that and keep
19 track of all of the impacts, the work that's
20 done; take photographs if there are, for
21 example, rare snakes or turtles that are in
22 the right-of-way. The monitor will go ahead
23 of the equipment and make sure that there are
24 none in the path of the equipment that's

1 moving through the right-of-way that would be
2 crushed and relocate those if necessary and
3 document all of that. The monitors are part
4 of the tailgate meeting that's held each day
5 prior to construction so that they can alert
6 the construction group to any environmental
7 issues they need to be aware of for that day.
8 Does that answer your question?

9 Q. Well, I'm interested in the mitigation and
10 avoidance part, an exact instance where you
11 actually have an environmental monitor, say,
12 call you. I don't know who they're calling
13 to say halt, stop, come look at this, we
14 didn't expect this. I'd like to know some
15 instances where you are familiar with someone
16 who's used an environmental monitor, called
17 one in for projects in New Hampshire.

18 A. (Carbonneau) You mean have we been called to
19 a construction site that needed a monitor to
20 take a look at something?

21 Q. Right. Yes, and then how has it resulted in
22 any mitigation or avoidance?

23 A. (Carbonneau) I have worked on several
24 projects for Eversource where the monitor was

1 not present when they were going somewhere
2 and they found a turtle, for example, that
3 they needed to have identified, or where they
4 needed to have an alternative route to get to
5 a particular location because the terrain was
6 not as they expected based on the field
7 plans, and they requested an alternative
8 route be available for them to use. In that
9 case, an actual permit amendment had to be
10 requested from New Hampshire DES. So they
11 needed to stop work there and wait for DES
12 approval to relocate to a different place.
13 You have to quantify the new impact area. If
14 it's larger than the other way that you were
15 going to go and requires additional impact,
16 then you have to pay an additional fee. And
17 in the cases I've been involved in, it did
18 not result in an increase in mitigation
19 requirement, but it did result in an
20 additional fee for the review of that change
21 by New Hampshire DES.

22 Q. So you actually have used mitigation. You
23 just gave an example of mitigation.

24 A. (Carbonneau) Well, this was more of an

1 avoidance and minimization issue where we had
2 come up with the least impacting route. When
3 the contractors actually got out there, they
4 said this isn't going to work. We actually
5 have to go this way and the impacts are going
6 to be greater.

7 Q. So that's more avoidance.

8 A. (Carbonneau) It's avoidance in reverse.

9 Q. Okay. Thank you. What about mitigation?
10 I'm interested in concrete examples of an
11 environmental monitor being called in to
12 mitigate a project.

13 A. (Carbonneau) Typically the mitigation -- if
14 you're talking about mitigation of wetland
15 impacts, that's something that has already
16 occurred during the permitting process of the
17 Project. So I haven't had the experience
18 where I've needed to come up with additional
19 mitigation after the construction project
20 began.

21 A. (Tinus) I can give an example.

22 Q. All right.

23 A. (Tinus) On the Groton Wind Farm, after a
24 certain stretch of the tower arrays or wind

1 turbine arrays were constructed, it was found
2 that there was some material that got -- had
3 gone down a slope, some rock; so they
4 overfilled the wetland. They had to remove
5 that material and actually restore it in
6 order to, you know, satisfy the concerns of
7 the groundwater monitor.

8 I just want to add something about the
9 presence of the environmental monitor.
10 They're on the site frequently. Typically
11 one day per week there's going to be several
12 monitors from the Company. The construction
13 firm will have their own monitors looking at
14 the work. They'll also have to go out after
15 rain events, as required by the state and the
16 federal agencies. So let's say after a
17 half-inch rain, they'll have to be out there,
18 or if there's a big storm predicted, they'll
19 want to take a look at all the erosion
20 control measures and things along the Project
21 route to make sure they're in good working
22 condition and that they're going to operate
23 like they should. So there's a lot of
24 presence on the site, if you will, from the

1 environmental standpoint.

2 Q. Okay. Thank you. I want to show you a
3 different map. The previous map was the
4 Northfield tax map.

5 This is the construction panel map.
6 This shows the same area, Fiddler's Choice
7 Road. It's all sandy. I believe it's marked
8 on your USACE maps, the Corps of Engineer --
9 Army and Engineer maps, as "Riverine Quality
10 Soil." So it's very, very sandy. There is a
11 proposal to build on my driveway access, the
12 so-called "apron." This red solid line is
13 all new. It's using access to get to what is
14 the dashed red line, which on this map is
15 described as "existing access route." And
16 then it'll go through this, what I call "the
17 dunes." It's all sand. And this actually is
18 from here, Fiddler's Choice Road, all the way
19 through, is two tenths of a mile and then you
20 reach my house. You're going to go through
21 all this access.

22 This is also new construction. And you
23 can see that halfway through this walk or
24 drive you have a lot of wetlands. This green

1 area is all wetlands-delineated. And on the
2 key, all this is wetlands. It's either
3 delineated with the dashed light blue line as
4 intermittent. I believe it's intermittent --
5 it's hard to see the color between the
6 ephemeral and intermittent on the key. This
7 aerial photo, you see it's highly forest
8 cover. And this is a construction pad. And
9 I was told by construction that this is going
10 to be possibly not entirely used because they
11 designate a certain area they may not use
12 depending what they find. And as I
13 understand it, there's two of these going on
14 near my property. Here's the corner.
15 There's another pad right here near the
16 corner. And that's where my house is, right
17 here. They're going to cut a line here
18 that's about 30 feet, plus or minus, without
19 a real survey by the engineer from
20 Eversource. And it's about 30 feet from a
21 well that's located about here, right over
22 the edge of the right-of-way. And the other
23 thing over here that's not shown on this map
24 is that I have a granite boundary marker

1 here. It was knocked down during tree
2 trim-cut. So I have contacted Eversource.
3 They're going to make sure there is a highly
4 marked way of making sure no one knocks it
5 down again.

6 And my question is: There is a key here
7 delineating the wetlands, and it says -- the
8 green, the little green dot means wetlands.
9 Green with yellow dots, which I don't see on
10 this map, not very clear, has wetlands.

11 What does it mean -- is there a
12 difference when you submit this permit
13 application if you review -- if you have a
14 wetlands that you have on the map versus
15 USACE, or U.S. Army Corps of
16 Engineers-reviewed wetlands? What's the
17 difference in the mapping? Because I was
18 told this map still holds, even though the
19 date on this map is from it says 2/19/2016.
20 When I spoke to the --

21 CHAIRMAN HONIGBERG: Wait, wait
22 wait, wait. So the question is what maps
23 should you be looking at?

24 MS. LEE: Yes.

1 CHAIRMAN HONIGBERG: All right.
2 Let's get an answer to that question.

3 BY MS. LEE:

4 Q. Yes. Is this the most current map available?
5 Because --

6 CHAIRMAN HONIGBERG: Wait, wait.
7 Stop. Stop talking. Let them answer. The
8 question is for them, not for you.

9 MS. LEE: All right. Thanks.

10 A. (Carbonneau) I believe this is a current map
11 for this location.

12 BY MS. LEE:

13 Q. It is a current map?

14 CHAIRMAN HONIGBERG: Ms. Lee, I
15 think you also seem to want to ask about the
16 difference between wetlands and USACE wetlands;
17 right?

18 MS. LEE: Right.

19 CHAIRMAN HONIGBERG: All right.
20 Why don't we get an answer to that question,
21 okay.

22 MS. LEE: Okay. Thank you.

23 A. (Carbonneau) After we delineated wetlands,
24 the U.S. Army Corps of Engineers came out in

1 the field with us, and they spot-checked our
2 delineations. We invited them to places in
3 particular where the delineation was
4 challenging or we had a question about it and
5 we wanted their input. And we also looked at
6 a whole variety of wetlands from one end of
7 the state to the other so they could get a
8 sense of the Project. Those particular
9 wetlands are identified with the little
10 yellow dots. They had asked us specifically
11 if we could show that on the plan so they
12 would remember which ones they had already
13 seen. But they -- all the delineations were
14 done the same way. So there's no difference
15 in the quality of the delineation or anything
16 like that.

17 Q. Okay. Because I met a woman who was
18 surveying for wetlands at the end of my
19 driveway recently, and she referred to an
20 expansion of a wetland. And I was -- I did
21 ask that question at a previous hearing. And
22 as I understand it, it is not an expansion.
23 So that I don't have a true map of the actual
24 wetlands. But I was told that it was an

1 expansion of the mapping. So I'm wondering
2 if we as landowners have the actual most
3 recent map. Because I learned at the
4 construction panel for the engineering that
5 there is a map that's not available to
6 landowners and it's being worked on, on your
7 laptops. I believe it's called OneTouch. Is
8 that something you use that we don't have
9 access to? Because I'm waiting for a map
10 that's supposedly made available sometime by
11 June 30th from somebody at Burns & McDonnell,
12 from the engineers --

13 A. (Carbonneau) Okay.

14 Q. -- to show landowners a current map
15 because --

16 CHAIRMAN HONIGBERG: Okay. I
17 think Ms. Carbonneau has some information for
18 you, so why don't we let Ms. Carbonneau try and
19 answer some of the questions in there.

20 A. (Carbonneau) I'm aware that there are some
21 modifications being made to some locations on
22 the Project route that will involve some
23 changes to the plan set. I don't -- I can't
24 say if there's any other specific changes to

1 this plan set that incorporates your
2 property. But I do know that the engineers
3 are working to update the plan set.

4 WITNESS CARBONNEAU: Jake, do
5 you have anything to add to that?

6 WITNESS TINUS: No, just what
7 you stated, Lee.

8 A. (Carbonneau) Okay.

9 BY MS. LEE:

10 Q. So are we still expecting updated maps to be
11 available to property owners by the end of
12 June?

13 A. (Carbonneau) I'm guessing they will be made
14 public and part of the record. I don't know
15 that there is a plan to actually deliver them
16 to property owners.

17 And I can tell you I don't believe
18 there's any changes to the natural resource
19 information on the plan. If there are
20 changes that the engineers are making, it
21 could be to structures or work pads. But I'm
22 not familiar with any on this plan.

23 Q. All right. Thank you. Sticking to my
24 questions, Dr. Barnum, I think you informed

1 us last week that most of the Canada lynx
2 were found in Maine?

3 A. (Barnum) Yes. New England. That's true.

4 Q. Are they reported in New Hampshire?

5 A. (Barnum) Yes, there are reports in New
6 Hampshire from mainly Pittsburg, but also
7 other towns from the White Mountains north.

8 Q. From the White Mountains north?

9 A. (Barnum) Yes.

10 Q. You have a couple escapees. A friend of mine
11 recently sent me a picture of one in his yard
12 in the Lakes Region.

13 A. (Barnum) Canada lynx and the bobcat look very
14 similar. You can tell the difference if you
15 look for specific field marks. But photos
16 and, you know, a quick glimpse of the two
17 animals can be difficult to tell them apart.
18 It's common for folks to think that a bobcat
19 could be a lynx. The verified reports are
20 all from north of the White Mountains.

21 Q. And if you have a Canada lynx or bobcat, is
22 it precious? Is it protected?

23 A. (Barnum) The bobcat currently is protected in
24 the state. There's no season on it. It's

1 far more common than a lynx, but it's still a
2 protected species. However, it is not listed
3 as threatened or endangered. There's simply
4 no season on this animal. In most other
5 states, certainly all the surrounding New
6 England states, there's a trapping season for
7 bobcat. The pelt is worth something.

8 Q. I see. Thank you.

9 If you find -- let's say you found a
10 Canada lynx on your property and you are
11 building this construction and you don't
12 have -- do you call in a monitor? Do you
13 actually report this and the work stops if
14 you have a protected animal?

15 A. (Barnum) Yes, if you observe a protected
16 animal on your property, you would want to
17 alert the environmental monitor in the case
18 of this project. If there was no project and
19 you simply observed such an animal, you'd
20 want to contact Fish & Game about that.

21 Q. So we would call Fish & Game, not the
22 environmental monitor to halt work?

23 A. (Barnum) For the Project, you'd contact the
24 environmental monitor. If there were no

1 project, if you were simply a landowner who
2 observed such an animal, you'd want to report
3 it to Fish & Game.

4 Q. All right. Thank you.

5 And do you think it's possible there are
6 areas that are habitats for wildlife that are
7 not identified by the Northern Pass
8 environmental panel?

9 A. (Barnum) I feel like the observations of
10 wildlife habitat that we did for the Project,
11 both in the field and through desktop
12 analysis, was very thorough and that we've
13 identified the important locations for
14 protected species.

15 Q. And do you agree that a designated cut
16 area -- and what I mean by "cut area" is it's
17 proposed on this map that there's going to be
18 a new cut once they bring the 115 line over.
19 There's a new area that's cut that's all
20 trees. And I know that's a habitat. Do you
21 agree that a designated cut area for a
22 proposed relocated 115-kilovolt line could be
23 a habitat for wildlife?

24 A. (Barnum) Pretty much any vegetated area

1 within the state is habitat for some kind of
2 wildlife, and even some areas that aren't
3 vegetated. A sand pit has habitat value for
4 other species. So if there's land, there's
5 going to be wildlife.

6 Q. Excuse me?

7 A. If there's land out there, there's going to
8 be some amount of wildlife on it.

9 Q. Yes, that's so true.

10 My next question has to do with the
11 habitats for wildlife, birds, wetlands. Do
12 you agree that some driveway and access roads
13 are also the habitat in the site for our
14 wildlife? I mean in the road.

15 A. (Barnum) Certainly there are species of
16 invertebrate which are dependent on bare
17 ground. And invertebrates are classified as
18 wildlife.

19 Q. All right. And I know that you don't map it
20 as such, and neither does the engineering map
21 for wildlife. But I can tell you that in
22 this habitat, the actual roadway, the road,
23 Fiddler's Choice, as well as my driveway, is
24 a habitat.

1 A. (Barnum) Yeah, I would agree with that.

2 Q. It's very, very remote. So once construction
3 starts or any kind of motor noise or anything
4 that's unusual for construction, such as
5 bringing in your cranes for clearing or any
6 of the brontosaurus vehicles, that's going to
7 drive away the wildlife, the birds and the
8 wetlands-associated animals, I know.

9 I'd like to ask, is there a BMP or Best
10 Management Practice to re-evaluate and then
11 to adjust the plan designed for avoidance and
12 mitigation due to all that you've heard from
13 landowners thus far up to this date? Is
14 there any plans to actually change the design
15 or adjust the design?

16 A. (Carbonneau) Well, we have an obligation to
17 continue to work to minimize impacts. It's
18 one of the permit conditions that New
19 Hampshire DES has given us. If new
20 information from a landowner about a rare,
21 threatened or endangered species is brought
22 to us, then absolutely we will continue to
23 make modifications to try to minimize such
24 impacts. But we have done a fairly thorough

1 job so far in identifying those kinds of
2 things. And we have been working for quite
3 some time now with Fish & Game and the
4 Natural Heritage Bureau and New Hampshire DES
5 to make design adjustments as we can. But if
6 there are opportunities to do some more in
7 the future, then we will continue to do that.

8 Q. Thank you.

9 Does the environmental panel coordinate
10 to adjust, always working with the
11 consultation of landowners when you do those
12 tailgate meetings when the construction
13 happens and they have the daily tailgate
14 meetings and you're hopefully meeting with
15 the landowners? Is the adjustment made to
16 what your work is with the input from
17 landowners, or is that too late?

18 A. (Carbonneau) I have not necessarily seen a
19 landowner attend a tailgate meeting, although
20 we do encounter landowners during
21 construction. I believe that the Company,
22 Eversource, for example, on past projects,
23 does reach out to landowners before the
24 construction and tries to provide them with a

1 schedule of when the activities are likely to
2 occur on their property, as well as giving
3 them some contact information, so if they
4 have concerns or they would like to speak
5 with someone involved in the activity, they
6 will have a contact to do that. If there are
7 concerns that are known ahead of time, that's
8 always preferable because you don't want to
9 necessarily have to stop work to have a
10 conversation once all of the equipment is on
11 the site. So the preference is to work
12 things out ahead of time, and I believe that
13 Eversource typically does that.

14 Q. Thank you.

15 Can someone describe -- I saw a couple
16 maps go up earlier today with the mapping of
17 wetlands. But it's really hard to tell. Can
18 someone describe, someone on the panel, what
19 does a wet -- vernal pool water, when it's
20 pooled up, look like? Because on the blow-up
21 it was just a dark spot. What does the water
22 look like?

23 A. (Carbonneau) Well, it depends on what time of
24 year you see that vernal pool. They

1 typically have standing water in them during
2 the spring. They oftentimes will dry up
3 later in the summer. Say, August, September
4 they may have no water in them at all. Some
5 have vegetation growing in them, some do not.
6 But they are generally fairly shallow.
7 They're typically not connected to a stream,
8 per se, so they generally do not have fish in
9 them, because the fish would typically eat
10 the eggs or the tadpoles of the species that
11 depend on vernal pools. Does that answer
12 your question?

13 Q. What's the quality of the water in it, and
14 how large is the area in order for it to be
15 qualified on the maps as a vernal pool?

16 A. (Carbonneau) There is no size requirement.
17 So, some of the vernal pools are really
18 small, and some of them are very productive
19 even if they are small. But we do not
20 distinguish size of the vernal pool. There
21 are some considerations. If it's a very
22 shallow vernal pool in a wheel rut, that's
23 probably not going to be a very productive
24 vernal pool. It may dry up too soon. The

1 water is usually fairly warm and warms up
2 pretty quickly in the spring if it's not
3 under tree canopy, which most of the ones
4 that are in the existing right-of-way don't
5 have tree canopy. But they're very shallow,
6 so they are typically not cold. They're
7 warm, which aids in the development of eggs
8 to tadpoles to metamorphs.

9 Q. And how long does it last? From spring to --

10 A. (Carbonneau) It varies. It varies.

11 Typically they will dry out in the late
12 summer or fall, but not always. It depends.
13 It could be a wet year and they may not dry
14 out at all. Some dry out every few years.
15 Some are fairly permanently flooded, and yet
16 they do not have fish and they may still
17 function as vernal pools. So it depends very
18 much on the vernal pool. But the key is that
19 they have water standing in them at least
20 during the breeding period. So, ideally from
21 March through July that's ideal.

22 Q. I see. I know that one of the designated
23 construction parking areas for the trim crew,
24 when they came through, left a -- well, it

1 was in the fall. But there was a big pool.
2 And I went to check the Caterpillar tracks
3 that were left behind in my driveway and up
4 the parking area, so-called, that was cleared
5 to about 12 inches of shrub. And there was a
6 pool of water there, but it wasn't really
7 clean-looking. And it was where the vehicles
8 had parked. So I was wondering why does it
9 look like that? It's kind of slimy, oily,
10 rusty-colored. And I thought it couldn't
11 have been a deposit from one of the machines.
12 I hope. And I was wondering if vernal pools
13 look like that.

14 A. (Carbonneau) It depends on the vernal pool.
15 Sometimes the clarity of the water is poor.
16 They can sometimes have sediment. Kind of
17 depends on what the substrate material is.
18 Sometimes there is a sheen on them, and in
19 some cases that's natural. If they have a
20 lot of tannins in the water, they can be
21 quite darkly colored. But it varies. It
22 varies from pool to pool and location to
23 location.

24 Q. So if a vehicle parked in that same area and

1 there's standing water, that would be a
2 vernal pool; right?

3 A. (Carbonneau) To be a vernal pool under New
4 Hampshire or federal regulations, it has to
5 meet certain criteria. And that usually
6 involves visiting it during a breeding
7 season, which is the spring, and identifying
8 whether it has one or more of the obligate
9 species which is --

10 Q. And what is an "obligate species"?

11 A. It's one that is dependent upon vernal pools
12 for part of its reproductive cycle. Wood
13 frogs, spotted salamanders, Jefferson
14 salamanders. Could also have fairy shrimp.
15 And then there are secondary indicators which
16 could include certain aquatic insects. So it
17 has to meet either -- have the primary or a
18 few secondary indicators, as well as a few
19 other characteristics in order to be
20 considered a vernal pool. So, not every
21 puddle of water would qualify.

22 Q. All right. Thank you.

23 If the work for this project is
24 permitted -- the engineer walked my property

1 and found that the well is within 30 feet,
2 plus or minus, without a real proper survey,
3 within the work pad or work construction and
4 the line that's relocated. And is there
5 going to be a before and after test of water
6 from people's wells if it's that near? If
7 it's really 30 feet, plus or minus, is the
8 Project going to test my well water before
9 and after, as you do take photos of before
10 and after so you can remediate the damage?

11 A. (Carbonneau) Well, I might have Jake chime in
12 on this. I don't know if testing will take
13 place unless there's blasting proposed in
14 that portion of the right-of-way.

15 WITNESS CARBONNEAU: Jake, do
16 you know?

17 WITNESS TINUS: Yeah, just like
18 you stated, Lee, I don't think that we've
19 intended to test every well along the way
20 unless there's a blasting event that's needed
21 near there to put the foundations in.

22 Q. So it's only if there's granite or some rock?

23 A. (Tinus) Right.

24 Q. Would you test because that's considered a

1 disturbance?

2 A. (Tinus) Correct. Yeah. And so if that
3 location was within 500 feet of that
4 blasting. So any of the wells within 500
5 feet. So, sounds like yours would be
6 included.

7 Q. If you were blasting.

8 A. (Tinus) Yeah, if we were blasting.

9 Q. And we would be notified if you found any
10 rocks to blast.

11 A. (Tinus) Yeah.

12 Q. You must be all thankful. I'm done.

13 CHAIRMAN HONIGBERG: All right.
14 Thank you, Ms. Lee.

15 I think that's all we're going
16 to do today. When we resume on Friday, we
17 still have the Ashland -- I'm sorry -- the
18 Deerfield Abutters and the Ashland-Deerfield
19 Non-abutters, I think, the Pemi River Group
20 and the Grafton County Commissioners and Mr.
21 Thompson. Did I miss anybody who still needs
22 to go? And then the Committee. And we'll
23 see how we do.

24 On Thursday, we'll be here for

1 the second scheduled Public Comment Session,
2 and we'll keep our fingers crossed that that
3 one goes as smoothly as the one did last
4 week. And with that we will adjourn for the
5 day. Thank you.

6 (Whereupon the hearing was adjourned at
7 5:10 p.m.)

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C E R T I F I C A T E

I, Susan J. Robidas, a Licensed
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