

1 STATE OF NEW HAMPSHIRE  
2 SITE EVALUATION COMMITTEE

3  
4 June 26, 2017 - 1:36 p.m. DAY 20  
5 49 Donovan Street Afternoon Session ONLY  
6 Concord, New Hampshire

7 {Electronically filed with SEC on 07-14-17}

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

WITNESS PANEL:                   LEE CARBONNEAU  
   SARAH BARNUM  
   JACOB TINUS

## INTERROGATORIES BY SUBCOMMITTEE AND COUNSEL:

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1           they're at 1500 in the solid waste rules,  
2           possibly the exclusions.  Where exactly in  
3           the solid waste rules is it excluding or is  
4           it addressing the fly ash outside of the  
5           certified waste-derived product determination  
6           that looked at the Merrimack and Schiller  
7           Station?

8    A.   (Tinus) I don't know the exact citation.  But  
9           I do know, and I was forgetting earlier, that  
10          we had a conversation with DES, one of the  
11          attorneys, and they did speak with them  
12          indicating that it is an allowable use of  
13          that material under the rules.  I don't know  
14          specifically which rule number that is,  
15          though.

16   Q.   And maybe that's something we might be able  
17          to find out.  As I look, I'm just pulling up  
18          the rules here, solid waste exclusions, but  
19          also that 101.03 for DES.

20                 But I'm also looking at, and I suspect  
21          this might be what they're referring to,  
22          products meaning published state or national  
23          standards?

24   A.   (Tinus) I believe that's correct, yes.

1 Q. And it specifically refers to "Waste-derived  
2 products shall include coal-fired, electric  
3 power plant fly ash."

4 A. (Tinus) Correct.

5 Q. And so that's what we're talking about here  
6 is coal, coal-fired, electric power plant fly  
7 ash?

8 A. (Tinus) That's correct.

9 Q. All right. That certainly helps me out  
10 there.

11 I know you'd be disappointed if I didn't  
12 ask about environmental monitoring. You  
13 know, one of the things -- and I think we've  
14 added a lot to this discussion and you've  
15 answered a lot and we got a clearer picture.

16 One of the things I'm hearing, and this  
17 may be what you hear as well and you can tell  
18 me, is a lot of times there may not be the  
19 confidence for any project where the BMPs we  
20 all collectively create, you know, at our  
21 desks and at our computers and in our  
22 meetings, when we get out in the field,  
23 that's exactly what happens. And so I wonder  
24 if you'd agree with me that the danger to

1 BMPs out in the field are either lack of  
2 education or the fact that familiarity with  
3 the practices leads to shortcuts sometimes,  
4 and the whole point of the environmental  
5 monitor is to make sure that those two  
6 activities are covered. Would you agree with  
7 that?

8 A. (Tinus) Yes. Yes, I think that's fair.

9 A. (Carbonneau) Yeah, I think I would agree with  
10 that also.

11 Q. And so when we look at -- you know, you saw  
12 the pictures. And I wouldn't ask you to go  
13 back and talk about it because of the context  
14 of the pictures. But when you see someone  
15 standing on, you know, a tub of slurry, you  
16 know, that's the concern is that someone has  
17 become too familiar with that product, with  
18 that practice. They feel comfortable doing  
19 that. So the question then is -- we have  
20 environmental monitors. My impression would  
21 be you're not going to be -- and, well,  
22 first, let me ask: All three of you have  
23 been environmental monitors; correct?

24 A. (Tinus) Yes, I have.

1 A. (Carbonneau) Yes.

2 Q. You're not going to be on site all the time.  
3 So I would expect you would -- you would  
4 expect that whatever you do, people are going  
5 to follow without you there. There's going  
6 to be some level of independence, but they  
7 know that they're accountable to you;  
8 correct?

9 A. (Carbonneau) Yes.

10 A. (Tinus) Yes.

11 Q. And so as you see these things, or as you see  
12 issues like someone standing on a tub of  
13 slurry, what is the retraining that occurs?  
14 What brings back the authority that you have?  
15 How are you preventing something like that  
16 from happening again in the future?

17 A. (Tinus) Well, maybe I could reiterate an  
18 example I gave a couple days ago, and this  
19 was with an operator on a site on the Groton  
20 Wind Farm.

21 Basically, you know, he was dismissed  
22 from the site for not following protocol.  
23 And, you know, he performed a material  
24 removal in a location that was actually

1           berming some water up, and it ended up  
2           leaking through the hole in the berm that he  
3           created. And they used that -- they, the  
4           contractors, used that as an educational  
5           tool. And they did remind the other  
6           operators that, you know, if you want to have  
7           your job here on this site, don't do that.  
8           There's that level.

9                        But I'll say that, in my experience,  
10           especially on larger projects, a weekly  
11           meeting will happen where there's an  
12           educational component and there's a reminder  
13           of the conditions that the Applicant is  
14           under, and therefore the contractor's hired  
15           to do the work, that they have to follow, you  
16           know, all of the Best Management Practices.  
17           And they're reminded of the sensitive  
18           locations where they'll be working. They're  
19           reminded of safety practices and protocols.  
20           And it's a constant education process, and  
21           that's -- in addition to that, there's a  
22           morning tailboard meeting the contractors  
23           conduct themselves. The folks have to sign  
24           in, check in. And when they sign this piece

1 of paper, that means they understood exactly  
2 what was discussed and talked about and the  
3 repercussions if they don't do the right  
4 thing. So I leave you with those couple of  
5 examples.

6 MR. WAY: Go ahead.

7 MS. WEATHERSBY: Just as a  
8 follow-up, if I may. Some of the photos that  
9 we saw I think were S.W. Cole employees  
10 regarding the borings. What, specifically,  
11 actions have been taken with regard to those  
12 employees and/or training of other people as a  
13 result of those incidents?

14 WITNESS TINUS: I don't know  
15 specifically how they addressed the issue with  
16 the S.W. Cole employees, other than to tell  
17 them they need to follow the appropriate  
18 protocols. I believe it was Dana that  
19 addressed a letter to the DES explaining that  
20 the contractors were spoken to and that they  
21 were reminded that they needed to have the  
22 appropriate records on site, including copies  
23 of the permit and other issues.

24 But, you know, beyond that and

1           beyond the fact that the agencies actually  
2           went and looked at the situation, I mean, I  
3           think they found and they addressed it in a  
4           response letter, that they didn't find any  
5           issues on the site with what had occurred. I  
6           think, you know, there's a photograph of  
7           something that happened. But what the  
8           contractors explained, as I mentioned with  
9           Mr. Bisbee's letter, they were counseled and  
10          spoken to, to follow procedures.

11                         MS. WEATHERSBY: And is S.W.  
12          Cole still going to be a contractor on this  
13          project?

14                         WITNESS TINUS: I do not know  
15          that.

16                         MS. WEATHERSBY: Sorry.

17                         MR. WAY: No, that's quite all  
18          right.

19 BY MR. WAY:

20 Q. Has there been any complaints that you know  
21          of on projects that you've worked on about  
22          the responsiveness and effectiveness of the  
23          environmental monitors? And this is for  
24          anybody.

1 A. (Carbonneau) On previous projects?

2 Q. Correct.

3 A. (Carbonneau) I can't think of any that I've  
4 worked on that I can give as an example.

5 A. (Tinus) I can't think of any either. The  
6 environmental monitors are very attentive.  
7 It becomes your full-time job even if you're  
8 only on the site one or two days a week  
9 because you'll be preparing reports or be  
10 communicating with the contractor on other  
11 issues. You know, it's a very serious job.  
12 I mean, I think we're trying to explain that.  
13 I know it's hard to explain to folks that  
14 haven't done it. But the people that do this  
15 take it very seriously. And as I mentioned  
16 before, they're credentialed, and therefore  
17 they have to uphold their own personal  
18 credentials; otherwise, they're questioned on  
19 their actions, and that's outside of any  
20 potential legal problems or administrative  
21 problems or whatnot that could occur.

22 So it's serious business. It really is.  
23 It costs money to delay. It smears their  
24 image of potentially getting future projects

1 if they don't behave correctly. You know,  
2 I've heard in the past that certain  
3 contractors are on the, you know, on the  
4 Black List or whatever. And I think there's  
5 some truth to that because word gets around.  
6 People tend to remember one bad thing and  
7 they don't remember all the good things, but  
8 that's what they judge you on.

9 Q. And it must be difficult for an environmental  
10 monitor because, like you said, they're only  
11 there in a particular zone maybe a couple  
12 days a week. And when you're there, are you  
13 stopping -- you're probably not stopping in  
14 for a long time, I'm assuming?

15 A. (Tinus) I would say they're pretty long days,  
16 especially during summer. I remember having  
17 some 14-, 15-hour days.

18 Q. At one particular work site or zone?

19 A. (Tinus) Well, yeah, maybe 10 hours and then  
20 another 4 or 5 writing reports, you know,  
21 until 11:00 at night and sending them out  
22 because you have to get a report out within  
23 24 hours. An inspection report would have to  
24 go to DES, to the town, to whoever we copied

1 on the list, the client. So there's -- you  
2 spend a lot of time at this, like I said.  
3 It's more than a full-time job. But in this  
4 project, as we've explained it's going to  
5 take more than one person to do all this.

6 Q. It is going to take more than one person.

7 A. (Tinus) Yeah, yeah.

8 Q. So you have to feel relatively confident,  
9 though, when you leave that site that the  
10 folks that are there are going to essentially  
11 carry your water and have an understanding of  
12 what you're looking for and what they should  
13 appreciate.

14 One of the reasons I say this, I was  
15 thinking back to a comment or a public  
16 comment we had last week. And he was a  
17 lineman. He gave some good testimony. But  
18 one of the things he said is he said, "Don't  
19 worry about the environmental impacts. We  
20 take that into account." I think he even  
21 referenced the environmental monitors. But  
22 he said, you know, if we see wildlife, we'll  
23 shoo it out of the way. And that gave me a  
24 little bit of pause to make me think, you

1 know, what are we doing to make sure that --  
2 and Dr. Barnum, maybe this is for you because  
3 you mentioned you're going to have specific  
4 people in specific areas.

5 Are you working with these crews to make  
6 sure they understand what your priorities are  
7 and how to notify you of something when  
8 you're not there, so it isn't a reactive  
9 activity?

10 A. (Barnum) I don't know who will be doing that  
11 work. I don't know if it's going to be me or  
12 somebody else. However, part of the  
13 avoidance and minimization measures clearly  
14 includes education for the construction  
15 crews. They need to be aware of which  
16 species are protected, what level of  
17 protection they have, how to respond when  
18 they see one of these animals.

19 The environmental monitor, part of their  
20 job is to do that training. You know, Jake  
21 has referenced the weekly education and  
22 tailboard meetings, going over the species  
23 that are of concern as part of that education  
24 and part of the tailboard meetings. We'll

1           have photos of the species that they need to  
2           be concerned of available to them. We  
3           usually have handouts, one for everybody,  
4           everybody in the crew. And certainly there  
5           will be permanent ones somewhere on site. So  
6           they've always got that reference material  
7           when they need it.

8    Q.    That's helpful. Thank you.

9                    You may have mentioned this. Mr. Tinus,  
10           I think you might have mentioned this. But  
11           OSHA-type activities, safety-related  
12           activities, is that the job of the  
13           environmental monitor as well, or is that  
14           something that's farmed out to another member  
15           of the work zone?

16   A.   (Tinus) Well, I mean, safety is of the utmost  
17           importance to everyone. I mean, they need to  
18           conduct the job safely. But I think there's  
19           an overall health and safety manager as well,  
20           in addition to the environmental monitor.  
21           Now, that said, they need to be on the  
22           lookout for unsafe practices. And we  
23           certainly would be. It's been noted, and  
24           I've been on, you know, inspections with

1 folks. And I'll be with the environmental  
2 monitor from the contractor side, and he'll  
3 note that somebody didn't have a particular  
4 PPE, personal protective equipment on, for  
5 example, safety glasses or something. And  
6 we'll stop what we're doing and he'll  
7 approach that person. So it's got to be in  
8 the forefront of the responsible, you know,  
9 individual. You know, there's a  
10 responsibility with the individual, but  
11 there's also responsibility of the person in  
12 charge to make sure that all those other  
13 individuals are following the appropriate  
14 practices.

15 Q. But it's a separate individual environmental  
16 monitor?

17 A. (Tinus) Yeah, in my experience, because it  
18 would be too much for the environmental  
19 monitor to handle. They have to -- they're  
20 concerned with the environmental aspect.

21 Q. I touched upon this earlier. When you're at  
22 a work zone, you're almost like a regulatory  
23 person there.

24 A. (Tinus) Right.

1 Q. And have you ever had problems with that  
2 authority at a work site? I mean, the people  
3 there, they have to get certain activities  
4 done within a certain day. Having been a  
5 former regulator in a past life, I understand  
6 how sometimes people can look at you a little  
7 bit differently. Do you find -- have you  
8 found in your experience that that has not  
9 been an issue? Or has it been an issue? Is  
10 it something that's overcome?

11 A. (Tinus) This may sound a little odd, but,  
12 yeah, I mean, I think most people in the --  
13 that work in the industry up here in the  
14 Northeast kind of appreciate the level of  
15 oversight that we have on projects. Now,  
16 I've worked on other projects where they  
17 brought a contractor in or two from, say  
18 Florida or South Carolina, where, "Well, we  
19 don't have that rule down here." And you  
20 need to explain to them, well, you're in --  
21 you need to follow what the protocols are  
22 here. It's state by state. It's local.  
23 It's project by project. So there is an  
24 aspect of, you know, reading the situation,

1           if you will, and -- I kind of lost sight of  
2           your question. I'm sorry. Can you restate  
3           that?

4       Q.   My concern is that, as a regulatory person on  
5           site, do you find, or in your experience have  
6           you found that that authority has actually  
7           been recognized, or have you seen problems  
8           with the exercising of that authority?

9       A.   (Tinus) No, I think people use different ways  
10          in recognizing authority, including humor,  
11          "Okay, here comes the environmental cop."  
12          You know, you hear that, or "Where's your  
13          badge?" you know, these kinds of snarky  
14          comments. That's okay. I mean, but the  
15          bottom line is, you know, that person, that  
16          environmental monitor, takes it seriously.

17                 Again, using that example about that  
18          equipment operator, I said to the contractor,  
19          I said, "I think he should be removed from  
20          the site. I mean, what he did is he opened a  
21          berm, he let water out, and I don't think we  
22          want to see that happen again, Chris." And  
23          that actually happened. He was removed  
24          within a few days of the site. I hate to say

1           it, maybe he lost his job. But he also  
2           caused a problem, a big problem up there. I  
3           didn't have a problem doing that. I mean, it  
4           is part of the job. And he wasn't doing his  
5           job, so...

6    Q.    The other two, do you find that to be true as  
7           well?

8    A.    (Carbonneau) For me, it's been very important  
9           to have the project managers who are  
10          responsible for the construction portion of  
11          the project that represent the client to  
12          really empower you in front of the  
13          contractors to have the right to stop work  
14          and to tell them what to do. And if that  
15          chain of command is maintained in the weekly  
16          meetings and at the tailgate meetings, then  
17          that alleviates a lot of the kinds of things  
18          you're alluding to, where, you know, a given  
19          person that works for a contractor may not  
20          recognize your authority to tell them what to  
21          do. So it's very important for the project  
22          team as a whole to all be on the same page  
23          with that and make sure that the contractors  
24          are aware of how important it is to make sure

1           they employ these methods and that they  
2           listen to the environmental monitor. I have  
3           found that that solves almost every problem.

4   Q.    And Dr. Barnum, would you concur with that?

5   A.    (Barnum) Yes, I think I probably have less  
6           experience than these two in environmental  
7           monitoring, but I found that when the project  
8           manager empowers you, that helps immensely.  
9           And I've also always been very pleased at how  
10          interested and responsive most individuals  
11          are to wildlife issues. They take a real  
12          interest. They take the education seriously.  
13          And it's nice when they find things and bring  
14          it to you. It's like they've learned and  
15          they're working with you. It's obvious.

16   Q.    All right. You answered my next question.

17                 And I'd be remiss if I didn't ask.

18          Bill -- Mr. Oldenburg had talked about where  
19          we were going to get these environmental  
20          monitors. And I've heard the number "several  
21          to 30." However the number is going to be,  
22          that skill set, do you in your field of  
23          expertise, do you feel that skill set for  
24          that number is here within New Hampshire?

1 A. (Tinus) Yes. Yeah, there's a couple of  
2 hundred individuals that are appropriately  
3 credentialed, perhaps more.

4 A. (Carbonneau) I expect there will be monitors  
5 that have some skills, but not all skills.  
6 So there will be issues for wildlife that  
7 fewer monitors really need to have because  
8 the requirements are much more local in where  
9 they are. We might need, you know, one  
10 wildlife expert for each zone of the Project,  
11 but we might not need, you know, 20 of them;  
12 whereas some of the activities that are  
13 taking place that require review of erosion  
14 and sedimentation controls and compliance  
15 with what's on the design plans, there's  
16 probably going to need to be more of those  
17 people than the real specialized wildlife or  
18 botany-skilled people.

19 Q. So everybody's going to be wearing more than  
20 one hat, but will not be wearing all the  
21 hats.

22 A. (Carbonneau) I think that's right.

23 A. (Tinus) Hmm-hmm.

24 Q. I wanted to shift gears and maybe close a gap

1 on maybe some of the wetlands issues. I had  
2 talked earlier about the Federal 404 Permit  
3 versus the state 404 Permit.

4 As I understand it, not being a wetland  
5 scientist, you have DES which will be doing  
6 their permit with the consult of Army Corps  
7 of Engineers; correct?

8 A. (Carbonneau) Yes.

9 Q. Army Corps of Engineers is going to be doing  
10 their own permitting system, the individual  
11 permitting.

12 A. (Carbonneau) Yes.

13 Q. And you chose to do that, where you were  
14 under the 3-acre limit. Did I understand you  
15 to say that was your choice?

16 A. (Carbonneau) We were not sure which way they  
17 were going to go. The Army Corps at first  
18 said they would consider the impacts to fall  
19 under their general permit level. They  
20 later -- we chose to give them all the  
21 information that had already been developed.  
22 We had it. It's not like we had to do extra  
23 work. We just had to package it differently  
24 for the Army Corps. So it includes many of

1 the other factors that the Wetlands Bureau in  
2 New Hampshire may not consider. It included  
3 information about, you know, land use and  
4 aesthetics and other public interest-type  
5 topics that we wouldn't necessarily on a  
6 typical wetland-delineation project include  
7 in a state application. That information was  
8 obviously already available from the Project,  
9 as well as from the Draft EIS. So there was  
10 a lot of that information that we could use.

11 But the Corps of Engineers has the  
12 discretion to decide how they're going to  
13 review a project that's under three acres and  
14 permitted impacts. So that was always a  
15 possibility that they might choose to review  
16 it as an individual permit. And we didn't  
17 want to have to submit something and then  
18 have to resubmit again. So we took what we  
19 think is probably the easier path, and we  
20 gave them all the information they would  
21 need, regardless of which way they decided to  
22 review it.

23 Q. So, three acres is often considered that  
24 magical number for developers, but that's not

1 exactly true. What you're saying is that  
2 there are extenuating circumstances, and the  
3 Army Corps can jump in and say they want more  
4 ownership.

5 A. (Carbonneau) Right. Between one acre and  
6 three acres, they can use their discretion.

7 Q. An interesting question was brought up  
8 earlier in terms of some of the federal  
9 proposals may be to cut at the federal level.  
10 That might be more of a concern to folks like  
11 you if, for example, Army Corps or EPA, the  
12 oversight staff dedicated to a project like  
13 this, if they're shifted around or cut. That  
14 could be a concern; could it not?

15 A. (Carbonneau) In my experience, they're pretty  
16 good at taking one individual who's making a  
17 circuit of their region, the New England  
18 region, and checking on a whole variety of  
19 projects in one or two days, and then they'll  
20 call you up and ask you questions if it's a  
21 project they're not that familiar with.

22 So I guess I would say that it's  
23 possible that, you know, cuts to the federal  
24 environmental agencies could reduce the

1 amount of time that they may have to go out  
2 in the field. I've never had a project where  
3 they're out in the field a lot. They will do  
4 spot checks at various times, sometimes even  
5 a couple years after the Project is over.  
6 But their participation in the field is  
7 generally limited, in my experience.

8 Q. And I understand that the project manager for  
9 Army Corps of Engineers, if it's the person  
10 I'm thinking of, I think he's retiring; is he  
11 not?

12 A. (Carbonneau) He is, yes.

13 Q. So you have a new project manager. And has  
14 that project manager been assigned?

15 A. (Carbonneau) Yes, there's actually -- the  
16 person that was assigned has also been  
17 re-deployed to another task for a little  
18 while. There is yet a third person who will  
19 be involved. And I can at least speak for  
20 Normandeau. She's coming to our office on  
21 Wednesday morning to talk to us about the  
22 various projects that we have before the  
23 Corps of Engineers right now and get familiar  
24 with us and, you know, take away any

1 information that we can give her as she  
2 becomes introduced to this project. But a  
3 lot of the review has already taken place.  
4 The individual who's retiring has spent a lot  
5 of time in drafting up information that the  
6 next project manager will be able to use and  
7 review in preparation for the permitting.

8 Q. So, for the 404 Permit, 'cause it's a  
9 full-blown permit, you had to come up with a  
10 mitigation strategy for them as well;  
11 correct?

12 A. (Carbonneau) Yes.

13 Q. And so you have a mitigation strategy for  
14 Army Corps, a mitigation strategy for DES.

15 Since you go for a 404, does that mean  
16 that EPA is a full-blown part of that permit?

17 A. (Carbonneau) Yes.

18 Q. Did you have to do a mitigation strategy for  
19 EPA as well?

20 A. (Carbonneau) They consult with the Army Corps  
21 on the Federal 404 Permit. So they have been  
22 involved in the same pre-application meetings  
23 generally that the Corps of Engineers has.  
24 They were invited to the mitigation site

1 walk. They couldn't attend. But what we  
2 have done is taken the most stringent  
3 mitigation requirements, which is the federal  
4 requirements, and applied that to the  
5 Project. So, even though New Hampshire DES  
6 does not concern themselves with secondary  
7 impacts for mitigation, and even though their  
8 quantified amount of mitigation required for  
9 impacts is less, we use the federal standards  
10 to make sure that we -- and we use the same  
11 package. We assemble that same mitigation  
12 package and send it to both agencies. So  
13 it's identical.

14 Q. All right. Are there other entities where  
15 you're providing mitigation?

16 A. (Carbonneau) For environmental permitting,  
17 the mitigation package is pretty  
18 comprehensive. It addresses plants,  
19 wildlife, wetlands. That's pretty much it.  
20 I'm not sure --

21 Q. Well, maybe I'm thinking like Fish & Game for  
22 high-elevation-type parcels. Are you doing  
23 any mitigation for that?

24 A. (Carbonneau) Yes. And that's one of the

1 reasons why we wanted to have preservation be  
2 part of the mitigation package. We have some  
3 high-elevation land on one of the mitigation  
4 parcels, and we thought that was a very  
5 important component to include. We have  
6 forested habitat which will help compensate  
7 for the clearing that will take place for the  
8 new right-of-way. We have considered  
9 wildlife in selecting the various mitigation  
10 parcels. And in particular, for secondary  
11 impacts that are related to cutting down  
12 trees near streams or vernal pools, the  
13 portion of the compensatory plan that has  
14 preservation directly assists in that. For  
15 other locations, we also have an ARM Fund  
16 payment that addresses impacts in other  
17 watersheds.

18 Q. Okay. And I'm going to talk about that in a  
19 moment. One second.

20 (Pause in proceedings)

21 Q. So you might anticipate my next question from  
22 my last. So you have mitigation parcels that  
23 you're using to satisfy your different  
24 permitting and arrangements. Are you allowed

1 to keep or use the same parcels? So, in  
2 other words, if you have -- like Fish & Game  
3 can use the same parcels that you're using  
4 for DES, which you're using for Army Corps,  
5 which might be satisfying EPA? Is it all  
6 just one grouping?

7 A. (Carbonneau) Yes, for the most part. We have  
8 eight mitigation sites, and some of them are  
9 combination parcels. There is one in  
10 particular that's in the pine barrens in  
11 Concord that won't satisfy any kind of  
12 wetland mitigation because it's dry. It's  
13 pine barrens. The only reason we have that,  
14 really, is to address Karner blue butterfly  
15 impacts and other wildlife impacts.

16 The other sites generally have  
17 high-value wetlands with upland buffers to  
18 satisfy the state and federal wetland  
19 requirements. But we tacked on additional  
20 parcels to those wetland areas so that they  
21 address wildlife issues as well. So our goal  
22 was to try to find parcels that addressed  
23 everyone's issues, to the extent that we  
24 could.

1 Q. So there was some double counting allowed.

2 A. (Carbonneau) Yes.

3 Q. In other words, you could use a parcel to  
4 satisfy more than just one entity.

5 A. (Carbonneau) Well, we can. But part of the  
6 reason is there's no way -- there's no  
7 formula for mitigating wildlife impacts  
8 that's used in New Hampshire. There is,  
9 obviously, a very well-defined way to come up  
10 with wetland mitigation. The wildlife is  
11 more of a project-specific approach. And so  
12 we made sure we had discussed what values the  
13 mitigation parcels had with the wildlife  
14 agencies, make sure that they felt they were  
15 getting some value from it. But they didn't  
16 give us a specific mitigation requirement for  
17 wildlife because there isn't something like  
18 that.

19 Q. Okay. Thank you. That helps.

20 In terms of -- so, the ARM Fund, that's  
21 a voluntary process you decide to utilize,  
22 the ARM Fund fee.

23 A. (Carbonneau) Yes. You have to use certain  
24 criteria to use the ARM Fund. But it's an

1 option. It's a mitigation option, yes.

2 Q. And you used the calculator that was on the  
3 web site, as I think I heard in earlier  
4 testimony.

5 A. (Carbonneau) Yes.

6 Q. When was the last time that the calculator  
7 was updated? Has this been in use for quite  
8 a long time that you're aware of?

9 A. (Carbonneau) Yes, the calculator's been on  
10 the web site for years. New Hampshire DES  
11 updates it annually because it includes a  
12 cost estimate on a per-acre basis for each  
13 town based on land values. So they do update  
14 annually.

15 Q. Were there any modifications made in that  
16 calculator for this project's benefit?

17 A. (Carbonneau) No, not for the benefit of the  
18 Project.

19 Q. Maybe "benefit" is not the right word, and I  
20 apologize.

21 Were any modifications made to the  
22 calculator for this project?

23 A. (Carbonneau) You mean if we used the  
24 calculator, did we change any information

1           that we had put --

2    Q.    Or did you --

3                   (Court Reporter interrupts.)

4    Q.    My question is: Did you use the calculator  
5           straight as you found it on the web site, or  
6           did there have to be some consultation with  
7           DES to work through the process of the  
8           calculator?

9    A.    (Carbonneau) We did have to ask the DES how  
10           they would like us to handle the federal  
11           request for adding information to the  
12           calculator. So if we were only preparing a  
13           state wetlands application, it's very  
14           straightforward. We had no questions about  
15           that. It's very easy to follow. The Federal  
16           Government asks that we add secondary  
17           impacts, and so there's, I guess, a variety  
18           of different ways that you can do that. So  
19           we wanted to make sure that we were using the  
20           calculator properly to include the secondary  
21           impacts that the federal agencies wanted us  
22           to use and we talked that through and it was  
23           consistent with how we've done it on previous  
24           large projects where we needed to use the

1 calculator.

2 Q. And I think, as you mentioned, DES is not --  
3 the money that is paid into the ARM Fund then  
4 goes into DES. They then have the ability to  
5 do wetlands mitigation and certain specific  
6 watersheds, impacted watersheds?

7 A. (Carbonneau) The money isn't directly  
8 controlled by the Wetlands Bureau for their  
9 own purposes. It goes into a fund, and then  
10 other people that have projects that are  
11 beneficial to wetlands have to apply for that  
12 money. There's a grant application process,  
13 and that's how the money is distributed. It  
14 doesn't go into the DES general fund or the  
15 Wetlands Bureau operating funds. It's very  
16 specific, and there are sort of -- it's let  
17 out by watershed to make sure that money  
18 that's brought in from impacts in one  
19 watershed doesn't get spent in some other  
20 part of the state where it may not provide  
21 the same kind of benefit.

22 Q. And you're in a lot of watersheds; correct?

23 A. (Carbonneau) We are.

24 Q. And so I would imagine the deciding entity is

1           probably, what, the Wetlands Board?

2       A.     (Carbonneau) There is actually an ARM Fund  
3           Committee that reviews the grant applications  
4           and makes decisions.

5       Q.     So there is a potential for moving this back  
6           to the communities through that process?

7       A.     (Carbonneau) Yes.

8       Q.     One last question on wetlands. I was  
9           sensitive when you were talking about the  
10          inspection reports of wetlands, and you said  
11          that, you know, another wetlands scientist  
12          coming back to that area more than likely is  
13          probably going to come up with similar  
14          results. And then we heard about the report  
15          from Rick Vanderpol -- I think I got his name  
16          correct -- and he had found a vernal pool and  
17          I believe some other impacts in an area and  
18          disagreed with your assessment. And I  
19          remember, Ms. Carbonneau, you saying you did  
20          not dismiss what he had said, which in my  
21          mind said you addressed it.

22                 So my question is, once again so I  
23                 understand it, how exactly did you address  
24                 it? And from what I heard, no one went out

1 to take a look at it; correct?

2 A. (Carbonneau) Correct. I didn't mean that we  
3 addressed it directly. We didn't dismiss it  
4 as an erroneous report. However, the  
5 information that he presented was not  
6 collected during the appropriate season to  
7 collect that information. What we dismissed  
8 were his -- that he had serious concerns  
9 about the delineation. We don't think there  
10 are serious concerns with the delineation.  
11 We were confident that we did a good job in  
12 that. We're not dismissing his opinion  
13 outright. He's entitled to it. But we have  
14 not gone out to re-delineate anything. I  
15 mean, there's any number of people that could  
16 quarrel with the placement of a wetland flag.  
17 But we had the Army Corps of Engineers come  
18 out. They did spot checks. We've had other  
19 consultations say our delineations were done  
20 well. So I don't think there's a serious  
21 concern. That's what I was dismissing.

22 Q. I hear you on that. I guess one of my  
23 thoughts is that I guess everybody considered  
24 him to be quite a reputable wetland

1 scientist, and this was in a season -- I  
2 think it was in a season where it would still  
3 be something that you could check upon.

4 So, if you had information like that, is  
5 that -- that was something that was not worth  
6 just a spot check, just to see if that was  
7 information that might actually be valid in  
8 the field?

9 A. (Carbonneau) I mean, it's possible that we  
10 could do that. But we haven't broached that  
11 with the client to see if they'd like us to  
12 do that.

13 Q. All right. Thank you. All right. You  
14 answered that. Answered that.

15 We talked briefly about what happens in  
16 locations like Plymouth when you're doing the  
17 underground work and you encounter things  
18 that maybe you weren't expecting. And this  
19 was one of the questions for the construction  
20 team, with regards to what happens if they  
21 encounter something that could delay  
22 construction.

23 As I understood it, you folks did not  
24 get involved in that discussion of what

1 happens if you engage in contamination,  
2 whether it be from petroleum-based  
3 contamination or something else.

4 A. (Carbonneau) Right, we haven't been a part of  
5 that construction planning element yet.

6 Q. So, for the underground construction in  
7 Plymouth or Franconia, some of the other  
8 areas where you might have the potential for  
9 something to be encountered, that isn't  
10 something you've been involved with.

11 A. (Carbonneau) Not specifically.

12 WITNESS CARBONNEAU: Jake?

13 A. (Tinus) No, I haven't either.

14 Q. And when you say "not specifically," not at  
15 all?

16 A. (Carbonneau) Right, not related to hazardous  
17 materials.

18 MR. WAY: All right. I think  
19 I'm good for now. Thank you very much.

20 CHAIRMAN HONIGBERG: Ms.

21 Dandeneau.

22 BY MS. DANDENEAU:

23 Q. Hi, folks. When we were talking with the  
24 construction panel, several of us addressed

1           some questions regarding the bentonite slurry  
2           mix used for the horizontal directional  
3           drilling process, and they asked us to refer  
4           those questions to you, so I have one  
5           regarding that.

6                        What are the impacts of that bentonite  
7           slurry mix on the environment, just in  
8           general?

9    A.   (Tinus) Bentonite itself is a non-toxic  
10   substance.  It's widely used in the  
11   construction field in boring, geotechnical  
12   borings, but also in water wells, monitoring  
13   wells.  For the purpose of the geotechnical  
14   borings, there was two different forms used.  
15   One is a powdered form, and that's mixed with  
16   water for the slurry mix that you speak of.  
17   The other is a chip form that's used to help  
18   seal the hole.  That's also used to seal  
19   wells or abandoned water wells.  So it's a  
20   very common substance used around the world,  
21   really, in this application.

22   Q.   So, no impacts on the environment whatsoever?

23   A.   (Tinus) Not from bentonite itself.  I mean,  
24   it's really an innocuous substance.  It's

1 taken internally by humans. It's used in  
2 cosmetics. It's used all over the place.

3 Q. Okay.

4 A. (Tinus) It's a clay, a very fine clay  
5 material that originally came from volcanic  
6 ash. And in this country, most of it comes  
7 from Wyoming. There's another large resource  
8 of it out in France, I believe.

9 Q. Okay. So are there other things, additives,  
10 materials in that bentonite slurry mix that  
11 could have an impact on the environment?

12 A. (Tinus) They sometimes add polymers.  
13 ACCU-VIS is one that helps with the drilling  
14 process. So it thickens the slurry so that  
15 you can get the returns that you need, and so  
16 it keeps it from getting discharged to the  
17 environment through the boring process. So  
18 that's one possibility.

19 It's deemed safe. You know, there are  
20 hazards with any material if not handled  
21 correctly. You know, table salt is a poison  
22 if you take too much of it.

23 Q. Sure.

24 A. (Tinus) But it's a material that's used,

1           again, in the industry, and when used in the  
2           appropriate quantities and handled correctly,  
3           it's not an issue.

4    Q.    Do you know what's in that material that you  
5           just described as ACCU-VIS?

6    A.    (Tinus) I believe it's a "polyacrylamide"  
7           it's called. Has other surface applications  
8           similar, in that it causes a crusting, sort  
9           of gelatinous look to it. I'm aware that  
10          it's in a material called "bonded fiber  
11          matrix," which is actually used as a Best  
12          Management Practice to stabilize a stockpile  
13          or a hillside. Sometimes you mix it with  
14          seed so that it actually is bonded with this  
15          material.

16   Q.    Okay.

17   A.    (Tinus) So it's used -- again, it's another  
18          material that's used -- polyacrylamide, that  
19          is -- it's used widely in a variety of  
20          applications.

21   Q.    So we've heard this term "frack out" used  
22          several times. So what is -- it sort of  
23          sounds like this bentonite slurry mix is not  
24          harmful to the environment. What is the

1 concern with a frack out then?

2 A. (Tinus) "Frack out" means that it's --  
3 there's an uncontrolled release of the  
4 material that's gotten through from the  
5 boring process. So, somehow it's worked its  
6 way out of the bored hole, in the case of an  
7 HDD, and then it's gotten through a vein, you  
8 know, in the rock and water has carried it.  
9 There are possibilities -- you know, there is  
10 a possibility that if that isn't managed  
11 correctly, that you could have a larger  
12 quantity of that material dumped into the  
13 stream. I suppose at the extreme level it  
14 causes smothering of aquatic life. But I  
15 think, as we've stated before, the contractor  
16 is required to have a very comprehensive plan  
17 developed to address this kind of issue and  
18 prevent it.

19 We don't expect that's going to be an  
20 issue on this project. The type of  
21 construction we're talking about is used a  
22 lot in underground construction in other  
23 places. It's not to say there's never, never  
24 been a problem, because obviously some folks

1           showed pictures where there was an issue. I  
2           believe the construction panel testified,  
3           though, that they would have the appropriate  
4           response equipment available. And that's the  
5           level of detail required, you know, that  
6           spells out what you have where and when. And  
7           how much you need for each particular  
8           application has yet to be determined. But as  
9           part of the condition, the contractor needs  
10          to present those plans to DES for approval.

11        Q.    Okay.

12        A.    (Tinus) We do have a general plan that was  
13           supplied as part of John Kayser's testimony,  
14           Supplemental Testimony. So it addresses  
15           normal drilling conditions, conditions during  
16           a lower return and then the condition which  
17           is frack out that you specifically mentioned.  
18           So there's specific steps that you take along  
19           the way to keep things in check and get you  
20           back to normal.

21        Q.    Okay. So you just mentioned a situation  
22           regarding this slurry mix getting discharged  
23           into a service water scenario. But what  
24           about groundwater? If it gets into

1 groundwater, is that a problem, a concern,  
2 issue?

3 A. (Tinus) I don't feel that it is, no, because  
4 the substances we're talking about are deemed  
5 non-toxic. So if some gets into the  
6 groundwater -- well, the way you detect if  
7 it's getting anywhere that it's supposed to  
8 be is that you have diminished return on the  
9 fluid coming back to what you're using. So  
10 that clues you in that there's an issue  
11 somewhere. So you typically slow down your  
12 drilling or you stop drilling altogether, or  
13 maybe you put additional casing in there.  
14 Maybe an additional polymer's added. There's  
15 a variety of steps. And, you know, all those  
16 details would be outlined again in that plan.

17 Q. Okay. So you mentioned a couple of  
18 techniques that might be used to help clean  
19 up or prevent the slurry mix from getting in  
20 the surface water. But what about if it does  
21 get into groundwater? Is there a reclamation  
22 process involved in that -- or with that?

23 A. (Tinus) Well, I mean, in the worst case, if  
24 it were to contaminate an area, then the

1 Applicant's responsible for clean-up.

2 Clearly, that's not what anybody wants to  
3 have happen. I mean, that's something --  
4 that's why you have BMPs in place to prevent  
5 that in the first place, so --

6 Q. How would the clean-up process work if it was  
7 in groundwater?

8 A. (Tinus) I don't know that I know the details  
9 on that specifically.

10 Q. Okay. All right. We've talked a lot about  
11 the fluidized thermal backfill. And I don't  
12 have questions specific to that or its  
13 potential contamination ability or what's in  
14 it, but I am curious about -- the purpose of  
15 the fluidized thermal backfill is to prevent  
16 the cables, the underground cables from  
17 getting too hot; is that correct?

18 A. (Tinus) That's correct.

19 Q. I know that's not really your area, but I  
20 think you probably know enough about it to  
21 answer that. And you said yes, that's  
22 correct?

23 A. (Tinus) That's correct. To dissipate heat,  
24 essentially, and provide a stable subsurface

1           for the materials that are placed on top of  
2           it.

3    Q.    Okay.  So there's going to be heat radiating  
4           out from the cables into the fluidized  
5           thermal backfill and, therefore, into the  
6           ground; correct?

7    A.    (Tinus) I don't know how far the heat goes  
8           or -- or the, you know, characteristics of  
9           the material in that regard.

10   Q.    Okay.  We did hear Mr. Scott talk about this  
11           on the construction panel, and I think there  
12           was even a diagram that he had.  And I don't  
13           remember which diagram it was, off the top of  
14           my head.  I might be able to find it.

15                 But my question for us folks is:  Is  
16           some of that heat dissipating out into the  
17           ground enough, to the extent that it's  
18           causing sort of a thermal pollution scenario,  
19           where it's maybe impacting how underground  
20           organisms behave because it's warmer than it  
21           would be without that underground cable  
22           present?  So is it drawing organisms to it  
23           for the warmth, or is it making organisms  
24           move away from it because it's too warm?

1           Either summer or fall. I'm thinking sort of  
2           like a winter scenario where grounds would  
3           normally be colder. Do you know of any  
4           thermal pollution associated with that?

5    A.    (Tinus) I'm not aware of anything in that  
6           regard.

7    A.    (Carbonneau) No, I'm not either, specifically  
8           to this application. Where this material is  
9           most -- where the cables are going to be  
10          primarily in or adjacent to an existing  
11          roadbed, typically underground wildlife is  
12          kind of restricted in that area, anyways.

13   Q.    Sure. Okay.

14   A.    (Carbonneau) So, most -- and I believe I have  
15          read a little bit about how far the thermal  
16          change may occur. And with the cable buried  
17          at the depth that it's proposed, there's  
18          expected to be very little change at the  
19          surface of the soil, which is where most  
20          invertebrates would be, near the surface. So  
21          we're not really expecting a significant  
22          effect to that regard for those particular  
23          reasons, but we haven't done any particular  
24          studies on that.

1 Q. Okay. All right. Thank you. I think the  
2 rest of my questions are sort of organized  
3 specific to each one of you. And I'll start  
4 with you, Ms. Carbonneau.

5 In your Prefiled Testimony -- and this  
6 was on Page 2 of 15, Lines 18 through 20,  
7 just for the record -- you mentioned, "In our  
8 analysis of potential wildlife impacts, we  
9 also considered an area approximately  
10 one-half mile wide on each side of the  
11 corridor, and for aquatic species, some  
12 additional stream habitat upstream and  
13 downstream of the right-of-way." And I have  
14 couple questions.

15 MS. DANDENEAU: Is that me?

16 CHAIRMAN HONIGBERG: Off the  
17 record.

18 (Discussion off the record.)

19 BY MS. DANDENEAU:

20 Q. You mention one-half mile outside of the  
21 corridor. What is significant about that  
22 one-half mile?

23 A. (Carbonneau) I might let Sara answer that --

24 Q. Even though it was in your Prefiled

1           Testimony.

2    A.    (Carbonneau) I know.  But I relied on her  
3           wildlife expertise.

4    Q.    Sure.

5    A.    (Barnum) One-half mile seemed like a  
6           reasonable distance to both encompass the  
7           home range of smaller animals and to  
8           intersect with the home range of larger  
9           animals.  And when we requested information  
10          about existing records of wildlife from the  
11          Natural Heritage Bureau, they asked us to  
12          give them a buffer.  They weren't just going  
13          to hand us the records for the entire state.  
14          So I settled on that buffer as reasonable for  
15          both types of wildlife.

16   Q.    Okay.  And then the part about "for aquatic  
17          species, some additional stream habitat  
18          upstream and downstream of the right-of-way,"  
19          is that if you had, say a stream crossing the  
20          right-of-way, you went outside of the  
21          right-of-way -- I'm looking at both of you  
22          because I don't know who will answer this --  
23          but upstream outside of the right-of-way and  
24          then downstream outside of the right-of-way?

1 Is that what that means?

2 A. (Carbonneau) That is what that means. And it  
3 was specifically for some of the stream  
4 sampling that was done to characterize  
5 fisheries habitat in some of the streams in  
6 the southern part of the state. We did some  
7 shocking upstream and downstream of the  
8 right-of-way where we had permission to do  
9 so.

10 Q. Okay. And so you just mentioned "shocking."  
11 Were you using an electroshocking backpack?  
12 Is that what you mean?

13 A. (Carbonneau) Yes.

14 Q. And were you just documenting fish species?

15 A. (Carbonneau) That was the primary reason. We  
16 were sort of gauging the quality of the water  
17 and whether or not it was going to be a  
18 cold-water or warm-water stream. We selected  
19 representative streams of different sizes  
20 that were within the Project area and might  
21 be affected by the Project in some way. So  
22 the "shocking" was more or less just a, you  
23 know, a presence, absence, and how many fish  
24 of what types and what size they were.

1 Q. Okay. Along that same concept -- and I know  
2 I have this same question later on my list,  
3 but since we're talking about it, I'll  
4 mention it now.

5 Some small streams that might be  
6 crossing the right-of-way, as part of the  
7 right-of-way maintenance is there a potential  
8 for all vegetation right up to those even  
9 really small streams being removed because of  
10 right-of-way maintenance?

11 A. (Carbonneau) In my experience, the existing  
12 right-of-way, a lot of times the vegetation  
13 that grows right along the stream are  
14 wetland-adapted shrubs that don't have the  
15 potential to get really tall. And to the  
16 extent they can be left, they generally are  
17 left. So, in many places on the right-of-way  
18 there's actually pretty good cover over the  
19 streams that cross it.

20 In the new right-of-way, that may not be  
21 the case initially because there's tree  
22 canopy. There may not be a great shrub  
23 community underneath it. So it's possible  
24 there won't be good shrub cover initially in

1           some of those streams that are newly cleared  
2           in the new right-of-way.

3       Q.    Are there measures that could be taken to  
4           help that process of those types of species  
5           growing there occur?  So, either plantings  
6           or -- I guess it would be plantings, really,  
7           in that new right-of-way area?

8       A.    (Carbonneau) Yes, that is part of the plan.  
9           The restoration plans call for putting woody  
10          species in and along the stream channels or  
11          wherever there isn't a good existing cover  
12          already present.

13      Q.    Right.  One of my concerns -- well, the  
14          reason I'm asking questions about that is  
15          because of brook trout.  I feel like there's  
16          quite a bit of money going into identifying  
17          where brook trout are, where they have been  
18          in the past, where they are no longer located  
19          now.  And it seems like in a project this  
20          size, covering this much area, that would be  
21          something important to consider because they  
22          are a cold-water species, and with an  
23          additional -- is it 20 miles of new  
24          right-of-way in the Wagner Forest being

1 created? Twenty-ish?

2 A. (Carbonneau) It's like 24 in Wagner and then  
3 there's some additional more.

4 Q. So there's going to be streams that cross  
5 that new section.

6 A. (Carbonneau) Yes.

7 Q. So I just was making sure that that was being  
8 considered. So, thank you.

9 A. (Carbonneau) We actually did a whole report  
10 on a stream temperature modeling effort to  
11 determine whether or not streams would be  
12 affected by the removal of canopy in the new  
13 right-of-way. And the results of that were  
14 submitted to New Hampshire Fish & Game for  
15 their review as well, the assumption being  
16 that pretty much any stream north of where  
17 the Merrimack and the Pemi line is, is likely  
18 to be a cold-water stream if it's more than a  
19 foot or two in width. It's quite possibly --  
20 and perennial. It's quite possibly a trout  
21 stream. So we used those assumptions, did  
22 some modeling to determine if the canopy  
23 clearing could affect brook trout  
24 specifically.

1 Q. Is that report part of the record?

2 A. (Carbonneau) It is.

3 Q. Do you know what it is or what it's called?

4 A. (Carbonneau) I think I can tell you...

5 Q. Or maybe at a break if you can't find it  
6 right now.

7 A. (Carbonneau) I don't know what exhibit number  
8 it is. It's the "Fisheries and Aquatic  
9 Invertebrates Resource Report and Impact  
10 Analysis."

11 Q. Oh, that was a mouthful. I got "Fisheries  
12 and Aquatic."

13 A. (Carbonneau) "Invertebrates."

14 Q. Thank you. Yup.

15 A. (Carbonneau) "Resource Report and Impact  
16 Analysis."

17 Q. Excellent. Thank you. Fantastic.

18 Also, Ms. Carbonneau, in your Prefiled  
19 Testimony on Page 5 of 15, Line 4, you  
20 stated, "Permanent impacts to perennial  
21 streams were avoided." And this just seemed  
22 like a really strong statement to me, in that  
23 over a 192-mile transmission line there  
24 weren't going to be any impacts to streams.

1           So I was just curious if you could clarify  
2           that for me a little bit.

3       A.    (Carbonneau) Right.  The approach to  
4           perennial streams is to span them.  So, since  
5           this testimony was submitted, New Hampshire  
6           DES required that we also go out and look at  
7           the off-right-of-way access roads that were  
8           established for forestry purposes.  They  
9           would have been permitted, in fact it was  
10          decades ago, under different rules that  
11          didn't require they meet the new stream rules  
12          that have been in effect for several years  
13          now.  But they wanted us to identify any  
14          culverts that were substandard by today's  
15          standards and replace those with better  
16          culverts, even if we're just using the roads  
17          temporarily.  And they called this a "change  
18          of use requirement."  They're not just for  
19          forestry anymore.  Now they're for  
20          constructing a project.

21                 So, since this testimony in October of  
22                 2015, the Project has gone out and we've  
23                 identified, I believe it's 29 --

24       A.    (Tinus) 29.

1 A. (Carbonneau) -- 29 culverts that will be  
2 replaced. And, you know, many of these are  
3 on perennial streams. So there will be  
4 actual work in these streams. But it's going  
5 to be an improvement because right now they  
6 have substandard culverts. So there will be  
7 some permanent -- we still call that a  
8 permanent impact to a stream. So that's  
9 changed a little bit.

10 Aside from that, the work that's going  
11 to be done in the right-of-way is all going  
12 to take place above the channel. And efforts  
13 were made to make sure that there's no  
14 structure footprint that's going to divert a  
15 perennial stream. So that's the basis of  
16 this statement.

17 Q. Okay. And you actually led into another  
18 question, which was about that culvert study  
19 that you were just talking about.

20 What are some things that you consider  
21 when you're looking to replace those culverts  
22 or modify or update them to make them better?

23 A. (Carbonneau) Well, we collected information  
24 about the gradient of the stream, the

1 substrate, if there were wetlands adjacent to  
2 them. I mean, there were also some, you  
3 know, sizing requirements; what's the  
4 watershed of the culvert, the catchment area;  
5 what storm flow does it need to pass. You  
6 know, all of that went into the determination  
7 of the size of the culvert, the arrangement;  
8 if there's more than one culvert, how is that  
9 going to work. And the goal is to improve  
10 not just storm flow movement but also the  
11 passage of aquatic life. You don't want a  
12 hanging culvert. You would like, if there's  
13 fish using the stream and invertebrates, you  
14 want them to be able to pass up and down  
15 without getting stuck.

16 Q. Excellent, excellent.

17 Also in your Prefiled Testimony, on Page  
18 5 of 15, Lines 12 through 17, you were  
19 talking about the Deerfield Substation and  
20 how it's been designed in an upland location  
21 but is accessed across a wetland swale  
22 modified for truck access. And then you go  
23 on to talk about a detention basin that was  
24 originally located within this wetland. Can

1           you describe to me what the "detention basin"  
2           is?

3    A.    (Carbonneau) It's a basin that collects  
4           stormwater from the substation expansion area  
5           and then releases it gradually to the  
6           environment.

7    Q.    So was it a man-dug hole that was then  
8           connected to the wetland to help move that  
9           overflow or --

10   A.    (Carbonneau) Yes, it would have been a  
11           constructed basin.

12   Q.    Okay. Like lined with plastic or cement? Or  
13           was it just a big hole?

14   A.    (Carbonneau) I don't know exactly what would  
15           be lined -- what materials would be used in  
16           that. I don't know how much of it was based  
17           on infiltration and how much was based on  
18           detention. But I'll defer to Jake.

19   A.    (Tinus) Yeah, there's different materials,  
20           depending on whether or not you're trying to  
21           get it to infiltrate or to hold the water and  
22           release it slowly. You could have a sand  
23           bottom, which would provide treatment if  
24           you're trying to infiltrate into the ground.

1 In other cases you want to hold it on the  
2 surface. And in that case, you might have a  
3 geotextile liner in rock. You know, it  
4 depends. Specifically, I'd have to look at  
5 the plan to tell you exactly what's there. I  
6 don't have the specifics right in front of  
7 me.

8 Q. All right. Okay. Elsewhere, Ms. Carbonneau,  
9 in your Prefiled Testimony, you were talking  
10 about wetland seed mixes. And you had  
11 mentioned earlier that the Natural Heritage  
12 Bureau -- or somebody had asked that the  
13 Natural Heritage Bureau confirm or approve  
14 your seed mixes. I just was curious where  
15 these seed mixes came from and what is it  
16 that the Natural Heritage Bureau is  
17 confirming or checking.

18 A. (Carbonneau) The Natural Heritage Bureau's  
19 main concern is that we use only "native  
20 material." And they have a very strict  
21 interpretation of what that means, even down  
22 to the genotype of the species. So we had  
23 proposed a few seed mixes that are  
24 commercially available, that are used widely

1 throughout New Hampshire and New England,  
2 that are locally sourced at least from New  
3 England. And there were on occasion a few  
4 species that they just did not want to see,  
5 which means we have to go to a more  
6 site-specific or project-specific mix and get  
7 their approval. So we have some suggestions.  
8 We haven't continued the consultation on that  
9 yet. But we know now which species they are  
10 unlikely to approve, so we can work around  
11 those choices.

12 Q. Okay. And on that same topic, what are the  
13 measures being taken to make sure that -- so  
14 you just talked about one of them in terms of  
15 invasive species. But are there other  
16 measures? Other than making sure you don't  
17 plant invasive species, are there other  
18 measures being taken where maybe only some  
19 areas where there's invasive species are  
20 already located, like purple loosestrife or  
21 phragmites or something elsewhere, where it's  
22 not being transferred to another location on  
23 a piece of equipment or on a trailer or  
24 something like that?

1 A. (Carbonneau) Yes, because that's a legitimate  
2 concern.

3 Q. Sure.

4 A. (Carbonneau) New Hampshire DES has a permit  
5 condition in their approval document that  
6 says that we'll follow what the New Hampshire  
7 DOT Manual says about preventing the spread  
8 of invasive species. So there's a whole set  
9 of specific Best Management Practices that  
10 need to be employed to meet those standards,  
11 and obviously one of them is not allowing  
12 seed that you get from one wetland to get  
13 transferred into the next ones as the  
14 equipment moves down. So there are  
15 requirements to clean the equipment.

16 If you are actually working in an area  
17 and you are excavating and you excavate out  
18 some invasive species, you have to dispose of  
19 them in a particular way to meet those  
20 standards. You know, they even have depths  
21 that you can bury them if you're going to  
22 bury them, or how to move them around without  
23 letting the seeds that are collected on the  
24 plants spread around. They're very specific

1 guidelines that have been developed over time  
2 that all work towards trying to keep those  
3 species from spreading.

4 Q. Okay. And I almost hate to bring up the  
5 environmental monitors since we've talked  
6 about them so much already today. But I'm  
7 guessing most heavy equipment operators  
8 aren't super familiar with potentially  
9 invasive species, and I'm thinking of  
10 something like Japanese knotweed, where like  
11 the smallest piece transported from one  
12 location to another could sprout and take  
13 root and become an issue. So you just talked  
14 about the measures through DOT. But who's  
15 making sure those measures are being followed  
16 down to, like, the little tiny piece of  
17 Japanese knotweed not being...

18 A. (Carbonneau) Essentially it's going to pretty  
19 much come down to the environmental monitor.  
20 One of the things they need to do first is to  
21 go out and re-flag all of the wetland areas.  
22 And in that process they identify locations  
23 where there are invasive species. We've  
24 already got notes on that from the work we

1 did years ago. Of course, things may change.  
2 So that's one thing that has to take place.

3 Q. Sure.

4 A. (Carbonneau) Then during construction, if  
5 it's a known place where it's obvious that  
6 there are invasive species, that's part of  
7 the tailgate meeting in the morning to let  
8 the contractors know that they're going to be  
9 operating in a location where that's an issue  
10 and that those BMPs that are required have to  
11 be followed in those locations.

12 Q. Okay. I wanted to ask you some questions  
13 about the -- in your Prefiled Testimony, you  
14 talked about the 1,668 acres of land that's  
15 going to be preserved as part of this  
16 project. And you had noted it's in  
17 Pittsburg, Clarksville, Stewartstown,  
18 Dixville, Columbia, Concord, Pembroke and New  
19 Hampton. And I was wondering if you could  
20 talk a little bit about the portions  
21 specifically located in Pittsburg,  
22 Clarksville, Stewartstown, Dixville and  
23 Columbia. Do you feel pretty familiar with  
24 those portions?

1 A. (Carbonneau) Yes.

2 Q. Excellent. Is it land that the Northern Pass  
3 Project has purchased?

4 A. (Carbonneau) Yes.

5 Q. All of it?

6 A. (Carbonneau) At this point, yes. I will make  
7 one correction. The New Hampton parcel is no  
8 longer part of the package. That was  
9 replaced with an ARM Fund payment recently.

10 Q. Okay.

11 A. (Carbonneau) But the others are all in there,  
12 and they are all parcels that are now owned  
13 by the Project, or Renewable Properties,  
14 Inc., which is somehow related to Northern  
15 Pass.

16 Q. Are they all contiguous with the  
17 right-of-way, or are in they in some places  
18 removed?

19 A. (Carbonneau) Some have the right-of-way going  
20 through them and others do not. So the  
21 high-elevation forest, for one, does not have  
22 any. That's a very large, 400-plus-acre  
23 parcel that has no right-of-way in it.  
24 There's another one that's along, I think,

1 Bear Rock Road that does not have the  
2 right-of-way in it. But some of the others  
3 will have the right-of-way in it.

4 Q. Okay. Is it all going to be placed in a  
5 conservation easement or under a conservation  
6 easement?

7 A. (Carbonneau) I will talk about the Concord  
8 one separately because that's just a totally  
9 different parcel.

10 Q. Sure. Yeah.

11 A. (Carbonneau) The others all have draft  
12 conservation easements drafted already. The  
13 Project has an interim easement holder, the  
14 Eversource Land Trust. But the goal is to  
15 try to get other land conservation agencies  
16 interested in holding and taking on  
17 stewardship of these properties at some  
18 point.

19 Q. Such as?

20 A. (Carbonneau) Well, you know, we've got land  
21 adjacent to lands that are managed by Fish &  
22 Game, by DRED, by the Forest Society. You  
23 know, there's lots of organizations whose  
24 interests are served by the resources

1           preserved on these sites. Whether or not  
2           they will want to be involved in the  
3           stewardship, at this point we don't know.

4                     But in the interim, there is a  
5           conservation easement which identifies the  
6           values of those lands, as well as the  
7           specific sensitive resources that need to be  
8           preserved because of the reasons they were  
9           selected for mitigation in the first place,  
10          if they have unusual plant communities or  
11          deer wintering areas, et cetera. So those  
12          things are noted, and eventually a management  
13          plan will be written for each one of those  
14          that is very specific and says if you're  
15          going to cut some trees, you can't do it here  
16          or here because we're protecting this deer  
17          wintering area, that kind of information.

18    Q.    Okay. I noted the use of the word  
19           "preservation" in your Prefiled Testimony.  
20           And I know in some applications preservation  
21           means protected from use, period. Is that  
22           the goal with this acreage?

23    A.    (Carbonneau) That's not really -- protected  
24           from all uses is not really the goal. The

1 goal is, to the extent that it doesn't  
2 conflict with the reason that that particular  
3 site was preserved, to allow, you know, we  
4 call it -- I don't know what we call it.

5 Q. Mixed use?

6 A. (Carbonneau) Sort of, yeah. Like  
7 recreational use, hiking. Hunting is very  
8 popular up there. We don't necessarily want  
9 to restrict that unless there's a specific  
10 reason to do that. Recreational use,  
11 fishing, access to public waters, I mean  
12 those are generally consistent with  
13 conservation and preservation. I don't --  
14 you know, obviously, rogue ATV use is not  
15 going to be allowed. But some of the sites  
16 are also -- they have some fields, and some  
17 of the fields may be, you know, valuable to  
18 the agricultural community if they're  
19 currently being used that way, if they're  
20 valuable hay fields, we would want that use  
21 to continue.

22 Q. Okay. Thank you. Excellent.

23 In your Prefiled Testimony at Page 8 of  
24 15, Lines 3 through 6, you had said, "Through

1           consultation with state and federal wildlife  
2           agencies, it was determined that additional  
3           funding for wildlife habitat management of  
4           compensatory mitigation parcels will be an  
5           important part of the mitigation package.  
6           The Project will work with the agencies to  
7           identify the appropriate funding commitment  
8           and mechanism for parcel management."

9                        Is there an update on that?

10        A.       (Carbonneau) There isn't yet. And to some  
11        extent, some of this work might be funded by  
12        the stewardship fees. So there's a couple of  
13        components here.

14                        In general, when a conservation easement  
15        parcel is deeded over to another agency for  
16        management and stewardship, there is a  
17        stewardship fee. And if that's invested  
18        well, it should fund the monitoring and some  
19        maintenance activities forever. For a  
20        specific parcel like the Karner blue  
21        butterfly mitigation site in Concord, we do  
22        expect there to be something above and beyond  
23        that for management purposes, because in  
24        order to get it to the state where it's going

1 to actually mitigate for impacts to lupine  
2 and Karner blue butterflies, there's some  
3 work that will need to go into getting that  
4 parcel ready.

5 Q. Also on Page 8 of 15, you talk about \$3  
6 million being donated to the Natural Fish and  
7 Wildlife Foundation over three years. Has  
8 this donation already occurred, or are we in  
9 the middle of that three years or --

10 A. (Carbonneau) I believe the first two years  
11 have been paid, but I'm not sure about the  
12 third year yet. I can't remember the exact  
13 date, but I believe at least two of those  
14 payments have been made.

15 Q. Okay. You also mentioned that that donation  
16 is matched. So does that mean a total of  
17 \$6 million is being donated or --

18 A. (Carbonneau) Not by Eversource. I think the  
19 \$3 million is from Eversource, but the  
20 Foundation then acquires matching funds from  
21 other agencies. So it kind of builds upon  
22 itself.

23 Q. Okay. When Ms. Manzanelli [sic] was speaking  
24 with you folks, there was talk about

1 restoration sites. I apologize. All I have  
2 in my notes is "number of restoration sites."  
3 I didn't write anything else down for  
4 context. Do you recall any -- it was you,  
5 Lee, who was talking about this. Do you  
6 recall --

7 A. (Carbonneau) I do.

8 Q. -- what the term "restoration sites" mean?

9 A. (Carbonneau) Right. She was asking me about  
10 the number of --

11 Q. Yes.

12 A. (Carbonneau) -- pieces of wetlands that  
13 needed to be restored. And I think my  
14 response was that that number wasn't  
15 something I knew, off the top of my head.  
16 And the reason for that is, you know, some of  
17 these areas are very, very small. I've gone  
18 back to look since we've had that  
19 conversation, and there are under a thousand  
20 of these. But that's still a lot. Many of  
21 them are less than 50 square feet, and many  
22 of them are less than 10 square feet. So the  
23 number of them is not that relevant because  
24 they vary in size. It's the overall amount

1 and where they're located. And we definitely  
2 have that information, and that's what's most  
3 important to getting them restored.

4 Q. Okay. So my question regarding that was what  
5 is -- or how are they being restored? Or  
6 what is the plan for how they will be  
7 restored?

8 A. (Carbonneau) Right. It may vary a little  
9 bit. So the plan is that they need to have  
10 grades that match what was there prior to the  
11 construction, and they need to be stabilized  
12 with an appropriate, for a wetland area, an  
13 appropriate wetland seed mix so that they  
14 become revegetated. And then the idea beyond  
15 that is when you set the stage for a  
16 restoration like that, over time they will  
17 function as they did before. So it will  
18 depend a little bit on what time of year the  
19 impacts take place, and, for example, how  
20 long has a timber mat been in place as to  
21 whether or not -- how much vegetation would  
22 need to be added, how much earth work might  
23 need to be done. And that's the kind of  
24 thing that is done once the area doesn't need

1 to be crossed again for construction  
2 purposes, what is necessary to get this to  
3 where it needs to be. So there are  
4 guidelines on what to do with that. But we  
5 didn't specify for each location because it's  
6 going to vary in the field based on how long  
7 it's been impacted and at what time of year.

8 Q. Okay. Okay. I had another question  
9 regarding the choice of species that will be  
10 part of any restoration. And I was  
11 curious -- and I'll give you a few questions  
12 and then I'll let you answer.

13 But who makes the determination beyond  
14 those seed mixes you were talking about as to  
15 what species are chosen? For example, is  
16 there a goal sometimes to focus on either  
17 lower-growing hard and soft mass species that  
18 will be potential wildlife forage, like  
19 high-bush cranberry --

20 (Court Reporter interrupts.)

21 MS. DANDENEAU: High-bush  
22 cranberry, elderberry or beaked hazelnut.  
23 Thanks, Sue.

24 A. (Carbonneau) So, in a project where there's a

1 variety of conditions in the wetlands from  
2 one end to the other, our goal was to find  
3 things that were quite common throughout the  
4 state. So, wetland-related species that have  
5 good wildlife value, that are common  
6 throughout the state, and for the most part  
7 are available as live stakes, which means  
8 they do well as cuttings. And those are  
9 species that usually grow fast as well. But  
10 obviously, we don't really want tall things.

11 So, you're right. Lower, woody shrubs  
12 that have good potential to help wildlife,  
13 offer quick growth to cover, you know, stream  
14 channels and other places and don't grow too  
15 tall, those were the main criteria.

16 BY MS. DANDENEAU:

17 Q. And who chooses which species will go where?  
18 Like are you out there saying we're going to  
19 put such-and-such in this location and --

20 A. (Carbonneau) Me, personally? No.

21 Q. Okay.

22 A. (Carbonneau) That will be the job of whoever  
23 is responsible for the restoration work  
24 post-construction.

1 Q. Okay.

2 A. (Carbonneau) For the most part, we're not  
3 expecting to plant lots of woody shrubs in  
4 the right-of-way because they're going to get  
5 mowed down, anyway. But we want to focus  
6 those plantings where it makes sense, like at  
7 the edge of water bodies, at the edge of  
8 streams, places where that kind of cover is  
9 most valuable.

10 The seed mixes we're proposing generally  
11 have enough variety in them so that something  
12 is going to do well in all conditions.

13 Q. Okay. Thank you.

14 Did you say at one point, Ms.  
15 Carbonneau, that if the entire line was  
16 buried underground, that would decrease the  
17 environmental impact of the Project?

18 A. (Carbonneau) If it were buried in previously  
19 disturbed roadbeds or whatever, then, yes, I  
20 believe I did say that.

21 Q. Okay. I just wanted to make sure you didn't  
22 mean the proposed route now, if it were all  
23 buried --

24 A. (Carbonneau) No.

1 Q. -- then it would have -- because the idea  
2 being that, say the 24 miles of new  
3 right-of-way, if that were all buried instead  
4 of overhead, the environmental impact would  
5 be quite a bit greater than if it were  
6 overhead; correct?

7 A. (Carbonneau) I believe that's the case, yes.  
8 We didn't study it specifically. But my  
9 common sense tells me that, you know,  
10 trenching through wetlands, blasting through  
11 bedrock, that's going to have a much greater  
12 impact.

13 Q. Okay. Bear with me. I'm pausing to read my  
14 notes here.

15 (Pause in proceedings)

16 Q. Actually, we've covered several things that I  
17 have written down.

18 Dr. Barnum, we heard quite a bit about a  
19 few turtle species yesterday or the day  
20 before -- or not yesterday, but last week --  
21 the wood turtle, spotted turtle and  
22 Blanding's turtle. And there was a table  
23 that we were looking at that described how  
24 these different species were going to be

1           impacted, and I believe that they were  
2           described as having a "low impact." It  
3           was -- I have "table from Appendix 36" in my  
4           notes here.

5                     You mentioned that during the  
6           construction phase that these species will be  
7           searched out and removed. I was just curious  
8           as to who would be doing this. Does this get  
9           us back to the environmental monitor folks?

10    A.     (Barnum) Yes, that's correct.

11    Q.     Okay. When would that process happen? Would  
12           that be early in the morning before  
13           construction began? Is there going to be a  
14           team of people looking in an area every day  
15           before construction occurs?

16    A.     (Barnum) So, the avoidance and minimization  
17           measures offer two choices: Either do the  
18           search daily before construction begins each  
19           day, or to search once and fence using  
20           reptile-proof fencing to keep those critters  
21           out for the duration of the construction and  
22           then removing the fencing as soon as it's  
23           safe for those animals to use those areas  
24           again.

1 Q. Okay. So then I had the last part was will  
2 this done for every mile of the right-of-way?

3 A. (Barnum) In the areas where those species are  
4 known to be and there's potential habitat,  
5 yes. And in the southern part of the  
6 right-of-way, that really does end up being  
7 pretty much all of it, so...

8 Q. Okay. You had mentioned that you evaluated  
9 potential turtle nesting habitat, I think via  
10 aerial photos you had said.

11 A. (Barnum) It's a combination of using soils  
12 information, distance to suitable water  
13 bodies and then aerial photos.

14 Q. Okay. So when you said this, one of my  
15 reactions was that that seems like a pretty  
16 coarse way of evaluating where these species  
17 might be present. And the reason I'm  
18 thinking "coarse" is because from an aerial  
19 photo you might be able to determine some  
20 larger areas that would be potential nesting  
21 habitat. But to a turtle, an area this big,  
22 the size of a big beach ball, might seem like  
23 the perfect spot to lay their eggs.

24 So how do you account for those really

1 small, more localized potential habitat  
2 locations?

3 A. (Barnum) So, after the desktop I went out in  
4 the field and checked, not a hundred percent  
5 of the locations that I thought were  
6 suitable, but a pretty good selection, and  
7 got a feel for ground truth in basically what  
8 I'd seen through the desktop. And my  
9 analysis is based on a combination of the  
10 desktop and then ground-truthing exercise.

11 Q. Okay. Looking back, hindsight often being  
12 20/20, do you have any concerns, whether it's  
13 regarding turtles or other species of either  
14 species of concern or just general species  
15 that might be using habitat available in the  
16 right-of-way, do you have any concerns that  
17 there was a more fine-scale habitat use that  
18 was missed by your analysis?

19 A. (Barnum) Given the amount of time I've spent  
20 walking up and down the right-of-way, I feel  
21 very confident about the habitat analysis  
22 I've done.

23 Q. Okay. Excellent.

24 You talked a little bit about moose

1 concentration areas. I'm assuming that these  
2 are mostly up north; is that correct?

3 A. (Barnum) That's correct. It's all north of  
4 the White Mountains.

5 Q. Overall, would you agree that the moose  
6 population in New Hampshire is declining?

7 A. (Barnum) That's what the agencies tell us.  
8 And my own personal impression and experience  
9 suggests that as well.

10 Q. How will the right-of-way impact the moose  
11 population, either what's already existing as  
12 a right-of-way being modified or, for  
13 example, the right-of-way that's going to be  
14 in existence should this facility be  
15 permitted down through the Wagner Forest?

16 A. (Barnum) So the existing right-of-way north  
17 of the White Mountains, and to some degree  
18 south of the White Mountains as well, is  
19 filled with moose sign. There's pellet  
20 groups. There's browsing. I saw tracks  
21 pretty much everywhere. So the moose use the  
22 existing right-of-way in its current form.  
23 They seem to be feeding there quite a bit. I  
24 don't know what other values they may find

1           there, but certainly they're feeding there  
2           extensively. So I think the early  
3           successional stage, the early young growth  
4           provides attractive food source for them. So  
5           they will lose some cover with removal of  
6           trees in the new right-of-way. That's where  
7           some of the moose concentration areas are.  
8           But I think that will be balanced with  
9           increased forage. And moose concentration  
10          areas that I observed, some of them were in  
11          logged areas. And so based on literature and  
12          conversations with the state moose biologist,  
13          cover is not necessarily the most important  
14          thing in a moose concentration area. What  
15          they're looking for in a lot of cases is  
16          forage or snow that's a little less deep for  
17          whatever reason, and that can just be because  
18          of the amount of sun it's getting or wind  
19          blowing it off. They're not like deer. They  
20          don't need coverage to the same extent.

21                 So, while there would certainly be some  
22          change in the cover habitat available to  
23          moose, I think on balance it's probably still  
24          going to provide all the resources they need

1           regardless.

2    Q.    Okay.  What about the relationship between  
3           moose and the winter tick that's specific to  
4           the moose?  I know that one of the larger  
5           concerns, or one of the big factors is not  
6           actually the number of moose in an area, but  
7           the density of moose in an area, and that  
8           that plays a big contributor -- or is a big  
9           contributing factor to the fact that there  
10          are more ticks causing higher moose  
11          mortality.

12                 Do you think that -- and I recognize  
13                 we're talking about a large area here.  But  
14                 do you think that moose seeking out forage in  
15                 either existing right-of-way or what's going  
16                 to become the new right-of-way potentially is  
17                 going to cause densities to sort of shift and  
18                 maybe have an impact on that moose-tick  
19                 relationship, and therefore moose mortality?

20    A.    (Barnum) I don't have enough information  
21           about the population to comment on those  
22           dynamics.  I can't make a statement.

23    Q.    That's all right.  I believe that's all I  
24           have.  Thank you.

1 CHAIRMAN HONIGBERG: Ms.  
2 Weathersby.

3 MS. WEATHERSBY: Thank you.

4 BY MS. WEATHERSBY:

5 Q. Luckily most of my questions have been  
6 answered, so I have kind of a scattershot  
7 approach here.

8 The Ashland septage lagoons, there was a  
9 letter from DES where DES offered to perform  
10 review of the proposed work when the final  
11 alignment and specific construction details  
12 are available. Are there plans to take DES  
13 up on their offer?

14 A. (Tinus) I'm not aware of that letter.

15 Q. Will there be any further involvement with  
16 DES concerning the septage lagoons?

17 A. (Tinus) I believe the Project's in discussion  
18 with the Town. But as far as that, I just  
19 don't know. I assume they'll discuss  
20 whatever concerns DES has in that regard if  
21 that's expressed by the Town.

22 Q. I think, if I remember the letter correctly,  
23 DES was basically stating they didn't have  
24 enough information to offer an opinion

1           because of the changes that were being  
2           considered in that area, and they were  
3           offering to come out again and offer an  
4           opinion once things were finalized.

5                        But what I'm hearing is at this point  
6           you're not aware of any further involvement  
7           with DES concerning that location.

8    A.    (Tinus) Yeah, I'm not personally aware.  
9           There could be others in the Company having  
10          those discussions, engineering. But I just  
11          don't have an answer to your question right  
12          now.

13   Q.    Okay. There was a statement -- I believe,  
14          Ms. Carbonneau, it was from you -- that  
15          restoration will begin once the construction  
16          is complete. And I'm wondering if there's a  
17          disturbance, say in a wetland, but then the  
18          Project isn't finished for another two years,  
19          does that mean the wetland restoration work  
20          doesn't begin until final completion? Or are  
21          there interim steps so that the wetland can  
22          function over the two- to three-year period?

23   A.    (Carbonneau) Yeah, that's a great question.  
24          So if the wetland is temporarily impacted in

1 one phase of construction and then they move  
2 on and then they need to come back, we're  
3 required to make sure the site is stable in  
4 the interim. So any exposed soil that's  
5 going to be exposed for long periods of time  
6 needs to be seeded and stabilized. Any  
7 slopes need to be -- make sure that they are  
8 stabilized in the interim. It's when the  
9 construction vehicles on the ground no longer  
10 need to return that the final restoration can  
11 take place. And that would be the final seed  
12 mix, any other shrubs, any grading that needs  
13 to take place. So there are obligations to  
14 make sure everything's stable while the  
15 construction period is ongoing. But in the  
16 end, the restoration of it is the final  
17 activity.

18 Q. Okay. So that's true not only just for  
19 wetlands, but for, say, steep slopes.

20 A. (Carbonneau) Yes.

21 Q. That will be secured, essentially, and each  
22 there's time construction work comes through.

23 A. (Carbonneau) Yes. Yes, they can't leave  
24 unvegetated slopes open for any long periods

1 of time. They have to be stabilized.

2 Q. Similarly, Ms. Barnum, you spoke about just  
3 now a method of sweeping for turtles. And  
4 one approach was you did the sweep once, and  
5 then you fence things off. But if the  
6 right-of-way may be a two-year or more  
7 construction period, does that fencing remain  
8 for two years if that method was used?

9 A. (Barnum) No. After the active construction  
10 that would endanger the animals is done, the  
11 fencing would need to be removed. And then,  
12 if there were another activity that would be  
13 similarly hazardous, you'd want to fence  
14 again. Now, there needs to be some judgment.  
15 You know, if there's just going to be a week  
16 between or two weeks between those  
17 activities, leave the fencing in place. But  
18 the idea is that the animal should be able to  
19 use the habitat to the extent possible.

20 Q. Okay. Mr. Tinus, can you explain for me how  
21 the trenching is done in an area where  
22 there's a high water table?

23 A. (Tinus) That's probably going to involve some  
24 dewatering. But beyond that specific

1 construction means, I don't know if I can  
2 comment on that specifically. I mean, it's  
3 on a case-by-case basis. So, you know, you  
4 would need to account for the water as a  
5 primary thing. And it would be similar  
6 trenching to, you know, the trenching  
7 activities in the other locations.

8 Q. And does that water just get pumped out and  
9 dumped on the ground or --

10 A. (Tinus) No.

11 Q. What happens to that water?

12 A. (Tinus) No, it would need to be captured,  
13 typically in something called a "dirt bag,"  
14 which is a filter bag. And if there's large  
15 quantities, it might have to be input into  
16 settling tanks. But, you know, depends on  
17 the situation. That's probably going to be a  
18 rare situation where they would need to have  
19 large volumes of water being taken out of the  
20 trench, but --

21 Q. But it's stored. The water is stored and  
22 then put --

23 A. (Tinus) It would be stored and then settled  
24 out and then released to an upland area, you

1 know, an area that's not going to erode  
2 further or get back to somewhere it doesn't  
3 belong, you know, directly.

4 Q. Okay.

5 MS. DANDENEAU: Can I --

6 MS. WEATHERSBY: Yes.

7 MS. DANDENEAU: Hopefully this  
8 doesn't squeak on us here.

9 I'm actually more confused by  
10 your answer than before she asked the  
11 question.

12 If you've got a high water  
13 table and you're digging a trench, isn't the  
14 high water table going to be continually  
15 filling that trench?

16 WITNESS TINUS: Well, it depends  
17 on how quickly it's inflowing. But, you know,  
18 they could use pilings or something like that  
19 to sort of block it off. I mean, there's a  
20 number of means and methods that contractors  
21 would employ, you know, in terms -- you know,  
22 they could be pumping it from one location to  
23 another, you know, sort of a pump-around  
24 situation. It's hard to speculate without

1 seeing it, seeing the conditions, if you will.

2 MS. DANDENEAU: Okay.

3 WITNESS TINUS: I think we have  
4 some exhibits, though, in the Application plans  
5 that describe, you know, some of the  
6 pump-around activities, including the filter  
7 bags. So there's a detail sheet within one of  
8 the permit plans that sort of discuss the  
9 options.

10 MS. DANDENEAU: All right.

11 Thank you.

12 BY MS. WEATHERSBY:

13 Q. There's still ongoing negotiations with DOT  
14 concerning the underground route and exactly  
15 where it's going to be located. But towards  
16 the end of the construction panel, it was  
17 indicated that some of the requests for  
18 waivers, responses had come in and things  
19 were more final. In the past, it's probably  
20 month, has anyone done any further studies or  
21 environmental studies concerning the location  
22 of the underground route?

23 A. (Carbonneau) Not in the last month for  
24 Normandeau, that I'm aware of.

1 A. (Tinus) No, not recently, other than the  
2 comment I made. You know, I had a brief  
3 conversation with some of the design team a  
4 couple weeks ago, and they indicated they're  
5 about 50 percent done looking through the  
6 underground locations. But what we talked  
7 about was, after the hearings are over,  
8 getting together again and reviewing this  
9 information again.

10 Q. If during underground or the overhead  
11 construction a homeowner or any member of the  
12 public finds or thinks they find contaminants  
13 on their property and in a streambed,  
14 whatever, what response -- where do they go  
15 to report it? What would be the response?  
16 What kind of mechanisms are in place to  
17 address a concern?

18 A. (Tinus) During the course of construction you  
19 mean or --

20 Q. During the course of construction.

21 A. (Tinus) Well, yeah, they'd have to alert --  
22 if the homeowner found it or if the  
23 contractor -- I guess I'm misunderstanding.

24 Q. Right now, say a homeowner or member of the

1 public came across something they thought was  
2 slurry at the side of their yard, for  
3 example.

4 A. (Tinus) They certainly should alert the  
5 Project Team. And I assume they're going to  
6 call DES if there's a big oil spill or  
7 something that they haven't seen before. You  
8 know, there's an appropriate hazardous  
9 response unit at the DES that could provide  
10 direction in that regard.

11 But the contractors will have measures  
12 in place as well, so there will be reporting  
13 protocol and procedures established prior to  
14 construction. So...

15 Q. So if a member of the public reported it, say  
16 to the Project Team, what would the Project  
17 Team then do?

18 A. (Tinus) Discuss the ramifications of that,  
19 and depending on the type of, you know,  
20 material or what the concern was, consider  
21 what their next steps are, which could  
22 include calling DES or an agency.

23 MR. WAY: As a quick follow-up  
24 to that, when we talked with the construction

1 team, that was one of the questions we had,  
2 that if someone, say a business owner right  
3 adjacent to, might be trenching work or  
4 anything, saw something that was out of line --  
5 it could be substantial noise, it could be  
6 dust, could be whatever -- and I think, as I  
7 remember Mr. Bowes saying in the response --  
8 our question was: Who do they go to? What is  
9 that process? And Mr. Bowes said they could go  
10 right to the team leader at the site and that  
11 person would take that message forward. I'm  
12 assuming that's probably the same for  
13 environmental issues as well, because I think  
14 it's fair to say you're probably going to have  
15 a lot of eyes on you as you're doing this  
16 process and there's going to be concerns that  
17 are gong to be voiced. That would be the  
18 process. The other thing -- or I'm assuming  
19 that would still be the same process.

20 WITNESS TINUS: I would agree.

21 MR. WAY: The other thing that I  
22 was wondering, has the Applicant given thought,  
23 or are they already considering something like  
24 a hotline, some sort of immediate response?

1           Because if I hear -- you know, when I hear  
2           someone say, "Well, you can go to DES," the  
3           average homeowner, business owner isn't  
4           necessarily going to do that. Has there been  
5           some thought given to a hotline or some sort of  
6           fast response type of activity?

7                           WITNESS TINUS: There may be  
8           others on the Project Team discussing this. We  
9           haven't on the environmental panel, but I think  
10          some folks here are taking notes and they'll be  
11          discussing that at the Project Team level.

12                          MR. WAY: Thank you.

13 BY MS. WEATHERSBY:

14 Q.       So as I understand it, at this point there's  
15       not an emergency contact person or an  
16       emergency response, you know, someone you can  
17       just call in and report what you feel is a  
18       violation.

19 A.       (Tinus) Not as yet. But that is a  
20       requirement of the construction general  
21       permit. There is an emergency response  
22       reporting requirement contained within that,  
23       so there will be names and numbers provided  
24       once those materials are put together. And,

1           you know, the idea of an 800 number sounds  
2           like a good idea to me.

3    Q.    And do you know if there's any follow-up  
4           required to get back to the person who made  
5           the complaint?

6    A.    (Tinus) That would go with -- yeah, that  
7           would be part of the procedure, that somebody  
8           would have to respond. There is an 800  
9           project number already where I think they had  
10          a 24-hour -- they had to get back to folks  
11          within 24 hours when any member of the public  
12          would call in and ask a question to the  
13          Project hotline. That was already set up.  
14          But we could set something up more specific,  
15          or the contractors, for this purpose.

16   Q.    If a homeowner along the underground route  
17          uses their well for drinking, for water  
18          purposes, I think that Northern Pass -- did I  
19          hear correctly that Northern Pass is willing  
20          to test their well water and will pay for  
21          that test?

22   A.    (Tinus) I think they were talking about if  
23          there's blasting involved nearby, within 500  
24          feet of a well.

1 Q. So only with blasting if it's within 500 feet  
2 of trenching and thermal backfill and, you  
3 know, all the other -- is it only with  
4 blasting, or is there --

5 A. (Tinus) That was my understanding, yeah.

6 Q. Okay. Back on the environmental monitors. I  
7 think I understand what is being proposed,  
8 but just to be sure.

9           There's a lot of specific --  
10 environmental monitors are being asked to do  
11 a lot of things. They're going to sweep for  
12 turtles; they're going to look for  
13 contaminants; they're going to look for  
14 certain species of plants and insects; you  
15 know, monitor the environmental impacts of  
16 the construction. I'm guessing, and I think  
17 you may be alerted to this, there's going to  
18 be certain people who are specialists that  
19 will roam about and other people will be more  
20 generalists?

21 A. (Carbonneau) I think that's fair to say.  
22 There are a lot of very typical, standard  
23 construction methods that are going to be  
24 used on this with very typical, standard Best

1 Management Practices, erosion and sediment  
2 controls, et cetera. There are a lot of  
3 folks that have that training. There may be  
4 fewer people who can, you know, identify a  
5 raptor nest, for example, or a certain  
6 species of snake or turtle. And so those  
7 folks will be a little bit more specific, and  
8 they're the ones who are most likely to have  
9 to require a handling permit from New  
10 Hampshire Fish & Game. So their credentials  
11 will be quite specific. Probably even fewer  
12 people who can identify some of the rare  
13 plants that are along the known locations in  
14 the right-of-way. So I think there will be a  
15 few specialized people and then probably a  
16 slightly greater number of folks who have  
17 more broadly applicable skills for  
18 construction purposes.

19 Q. If you could devise the plan that said I want  
20 to have this number of environmental monitors  
21 to adequately monitor the entire route and  
22 these qualifications, what would that plan  
23 look like?

24 A. (Carbonneau) Well, I don't think I would

1           devise a plan without a lot of input from  
2           contractors to know what their schedule is  
3           and where they might be when. I know all of  
4           these things sound very complex, but some of  
5           them only apply in certain seasons and in  
6           very limited locations.

7                        So I would want someone with good  
8           construction oversight, construction  
9           monitoring, erosion and sedimentation control  
10          skills to be available for every location  
11          where construction is happening, if not full  
12          time, at least available to be called in if  
13          an issue comes up, and to initially review  
14          the setup and the site preparation for  
15          construction. I would want to have a couple  
16          of a wildlife experts, maybe a botanist in  
17          each region of the state, at least one, so  
18          they could be available when they're needed  
19          in the field to do sweeps in a given location  
20          or to search ahead of time for a raptor nest.  
21          Some of these tasks are going to happen once  
22          and then they may not be needed again for the  
23          next year. So it's going to vary  
24          considerably. And it has to be done in

1           conjunction with the contractors and their  
2           schedule of activities.

3                       This is really -- I couldn't do it in a  
4           vacuum. But I would want people with the  
5           right kind of expertise on call for whenever  
6           they're needed.

7    Q.    Do the construction workers themselves act  
8           as -- I know informally they act as  
9           environmental monitors. But are they counted  
10          as environmental monitors, or is there a  
11          higher level of training involved?

12   A.    (Carbonneau) I think there's a higher level  
13          of training involved. They have a role in  
14          compliance, obviously, and they will get some  
15          training as well. But ultimately, an  
16          environmental monitor is a separate person  
17          who has that responsibility to make sure  
18          they're doing what they're supposed to be  
19          doing.

20   Q.    During public comment we heard from a  
21          gentleman, Mr. Webber, I believe, who  
22          discussed the potential MTBE contamination in  
23          the town of the Plymouth. And I think,  
24          Ms. Carbonneau, you also addressed this later

1 and indicated that the Phase I environmental  
2 study was done along the entire route.

3 Is the Plymouth MTBE contamination part  
4 of that Phase I? Is that identified in the  
5 Phase I, do you recall?

6 A. (Carbonneau) To be honest with you, I have  
7 not looked in detail at the Phase I Site  
8 Assessment Report to know exactly what was  
9 found where. I know there are a lot of  
10 records contained within the Project area  
11 that may or may not indicate a current issue.  
12 I think there have been a number of sites  
13 that have already been noticed and cleaned  
14 up. There are some others that have not been  
15 cleaned up. There's a whole range of  
16 different types of sites that could be within  
17 the Project area. And to be honest with you,  
18 I'm not sure if Plymouth is part of that.

19 Q. So, if during the underground portion the  
20 workers come upon -- I mean, will someone be  
21 monitoring the soils? How will they -- these  
22 are all identified on the Project maps? How  
23 do we know that contaminated soil isn't being  
24 removed?

1 A. (Carbonneau) Well, all I can tell you for  
2 sure is that the Phase I Site Assessment that  
3 we did didn't include a detailed walk-down.  
4 It did include a drive-through of the whole  
5 underground route to identify, you know, old  
6 gas stations or other things that we had  
7 questions about from the data base search.  
8 There was no field assessment involved in  
9 looking at soils in any way.

10 But if the contractors are excavating  
11 and they find materials that need to be moved  
12 off site, my understanding is there are rules  
13 and requirements for testing that material so  
14 that it can be placed in a suitable location  
15 once it leaves the site. And that's not my  
16 area of expertise, but those are -- if there  
17 are rules and regulations related to that,  
18 then those would need to be followed for the  
19 Project. And I know they're expecting to do  
20 that.

21 Q. Okay. And will that -- what kind of effect  
22 will that have on the construction time line  
23 if they come across, say MTBE contamination  
24 in downtown Plymouth?

1 A. (Carbonneau) I can't answer that question.  
2 I'm not sure.

3 Q. Okay.

4 A. (Tinus) Can I add a point to that? I would  
5 just say that the contractors are being made  
6 aware of any known sites. So they're going  
7 to have to plan that into their scheduling as  
8 well. If there's a potential problem area,  
9 they're going to want to know that just as  
10 much as they want to know where they need to  
11 do turtle and snake sweeps, because it's  
12 considered, you know, a construction  
13 restriction, if you will. And that's part of  
14 mapping out these areas of potential  
15 impediments to carrying out the construction  
16 schedule. And obviously they need to be  
17 aware of what they need to do in the case of  
18 this being a real-world situation and not  
19 just an identified location in a data base.  
20 But should they encounter it, then they need  
21 to take the appropriate measures.

22 Q. And I agree with you, although, I think, if I  
23 heard correctly, these sites haven't been  
24 identified. There was just a walk-through

1 looking at gas stations, and there's nothing  
2 on the maps -- or correct me if I'm wrong.  
3 It didn't sound like there was something on  
4 the map that says this is an area of concern  
5 for contamination, double check here, do some  
6 soil tests. I didn't hear that. So please  
7 correct the record for me.

8 A. (Tinus) So, Phase I gives you some locational  
9 information. So it does identify key spots,  
10 potential spots. So the next phase is  
11 testing. And, you know, the information, the  
12 Phase I information, the contractors are  
13 aware that that's -- you know, that there are  
14 locations out there that they're going to  
15 need to take the next steps. And if that  
16 includes testing of soils or whatnot because  
17 there's known contamination, they'll need to  
18 do that.

19 A. (Carbonneau) Yes, I can attest to the fact  
20 that there are maps associated with that  
21 report to highlight those areas for the  
22 contractors so they can be doing some  
23 pre-planning.

24 Q. Is your Phase I study part of the record?

1 A. (Carbonneau) I don't know. That's a great  
2 question. Typically those kinds of reports  
3 are confidential. But I'm not sure if that  
4 was submitted as part of the record or not.  
5 They were done in several different stages.  
6 Some were done for the mitigation sites, some  
7 were done for the transition stations.  
8 There's an underground report, and then  
9 there's also an overhead report, and I'm not  
10 sure to what extent those were submitted.

11 Q. And do you plan on doing any Phase II along  
12 the route?

13 A. (Carbonneau) I would assume that if it's  
14 required for, you know, material disposal or  
15 some other purpose, then I'm assuming that  
16 would take place. But it's not something  
17 we're currently planning on doing.

18 Q. Okay.

19 MR. OLDENBURG: Patty, could I  
20 butt in for a second?

21 MS. WEATHERSBY: Yeah.

22 MR. OLDENBURG: I had a  
23 follow-up question. I was going to ask the  
24 same thing, but she read right into it and

1 answered half of my questions. And I don't  
2 know if it was the same person who brought up  
3 the contamination in Plymouth, but I was  
4 involved as a DOT employee in the roundabout  
5 construction and the contamination that was  
6 there, and it was quite extensive. The plume  
7 almost went to the Pemi.

8 And I had the same questions  
9 about -- the construction crew had brought  
10 in -- or the construction panel talked about  
11 bringing in specialized crews to get the work  
12 done in a timely manner because they have to  
13 trench. There could be concrete pavement.  
14 They're going to work with the town for  
15 sewer. They've got a lot to do in downtown  
16 Plymouth. My understanding is that, like  
17 gasoline contamination, MTBE, it's not  
18 something that these crews would normally do.  
19 They'd stop work when they smell it,  
20 whatever, and they would bring in a specialty  
21 crew to remove it, remediate it, take it  
22 away. Is that typically what would happen?

23 WITNESS CARBONNEAU: That's not  
24 my area of expertise, so I'm not really sure if

1           that would take place. I think maybe the  
2           construction panel could have answered that  
3           question.

4                           Maybe, Jake, you can. I'm not  
5           sure.

6                           WITNESS TINUS: (Tinus) That  
7           seems like a reasonable approach. I'm familiar  
8           with that happening from other commercial  
9           projects I worked on quite a few years ago now.  
10          But, you know, where you have a specialized  
11          group come in, where they did in fact smell  
12          diesel fuel, I believe was the case that I'm  
13          thinking of, they had to remediate it. They  
14          had to dig a large quantity of soil out and  
15          send it for proper disposal.

16                          MR. OLDENBURG: So that was my  
17          question, was how fast can you -- you know, the  
18          timeliness of the work being done in downtown  
19          Plymouth seemed to be critical, and then that  
20          just adds another component to the -- to cause  
21          a problem. So...

22                          WITNESS TINUS: Agreed.

23                          MR. OLDENBURG: Thank you.

24          BY MS. WEATHERSBY:

1 Q. Moving on to an entirely different subject,  
2 the AMEs. I know you're in the process of  
3 developing AMEs for various species. Is that  
4 because industry -- "industry" in quotes --  
5 BMPs for those don't exist? Why are you  
6 developing your own standards?

7 A. (Carbonneau) You're right. We think of BMPs,  
8 Best Management Practices, sort of as an  
9 industry standard, something that's been  
10 developed that can be applied in different  
11 places. These are typically quite  
12 site-specific and species-specific. And  
13 really, in most cases, specific things to  
14 address impacts to certain wildlife species  
15 are just not available. So, part of the  
16 process is we've been working carefully with  
17 Fish & Game trying to come up with something  
18 that works for this project and addresses  
19 their concerns because there isn't an  
20 existing format to follow.

21 Q. The cable casing for underground, do you know  
22 what that casing is made out of and if  
23 there's any environmental concerns associated  
24 with it?

1 A. (Tinus) I'm sorry. I don't know. The casing  
2 for the cable?

3 Q. Yes.

4 A. (Tinus) Yeah, I don't know.

5 Q. Along the underground route, when you  
6 encounter tree roots from trees along the  
7 right-of-way, how do you handle that?

8 A. (Tinus) This sounds familiar. I think there  
9 was a data request that responded to this,  
10 but I'm not recalling the particulars.

11 WITNESS TINUS: Do you know,  
12 Lee?

13 A. (Carbonneau) Yeah, that does sound familiar.  
14 And my understanding is it included things  
15 like digging the tree root along its length  
16 and pulling it back and somehow tying it out  
17 of the way during the construction process  
18 and doing as little damage to the root as  
19 possible. Beyond that, I don't recall the  
20 specifics. But I think Jake's right. It was  
21 part of a data request where somebody from  
22 the team who has dealt with this before came  
23 up with their standard method of handling it.

24 Q. Right. I think I read it, too. Like you

1           said, it was -- you know, someone actually  
2           hand-digs the root and sets it aside and all  
3           that. And I'm wondering how practicable that  
4           is. You're going down with the backhoe, you  
5           know, and there's trees along somebody's  
6           front yard. I mean, does that really happen?  
7           Who ensures it happens? How big -- you know,  
8           like how does that work in practice?

9    A.    (Carbonneau) In practice, it's not something  
10       I'm familiar with in practice, so I can't  
11       really speak to that. But I can tell you  
12       that Eversource does have arborists, and they  
13       are very good at working with trees. And I  
14       would imagine that they would have some input  
15       on this. But I can't say for sure. I  
16       haven't seen this, like, in progress, so...

17   Q.    The birds that will be affected by flying  
18       into power lines, possibly affected, which  
19       species would you -- I think you already said  
20       this, but if you could remind me the species  
21       that you envision being most impacted.

22   A.    (Barnum) In general, this is an issue for  
23       species that don't fly well and don't see  
24       forward well. So that includes water fowl,

1 geese, swans, ducks, and then also a lot of  
2 wading birds, like cranes. Well, there are  
3 not a lot of different kinds of cranes in  
4 North America, but cranes are also in that  
5 category. These species are not abundant in  
6 New Hampshire. Sandhill cranes are rare, fun  
7 thing to see in the state. Don't see them  
8 very often. We don't have swans, either. We  
9 do have some ducks and geese, but not in huge  
10 numbers. Those would be the species I'd be  
11 most concerned about. But again, because we  
12 don't have huge numbers of them, I don't  
13 foresee it being a big issue.

14 Q. I do have swans near my house. But thank  
15 you.

16 MS. WEATHERSBY: I think that's  
17 all for me.

18 CHAIRMAN HONIGBERG: All right.  
19 why don't we take our afternoon break. We'll  
20 take ten minutes.

21 (Recess taken at 3:35 p.m.)

22 CHAIRMAN HONIGBERG: Commissioner  
23 Bailey.

24 BY CMSR. BAILEY:

1 Q. Good afternoon. I only have a few questions  
2 remaining. But I've had various impressions  
3 of thermalized -- or fluidized thermal  
4 backfill throughout the proceedings, so I  
5 just want to ask a few questions to make sure  
6 that I have the right picture in my mind.

7 Is the material in a liquid form when  
8 you install it and a solid form when it's  
9 permanent?

10 A. (Tinus) That's correct.

11 Q. So the fly ash and the other ingredient that  
12 you talked about, a polymer or something that  
13 might be harmful, not bentonite, the other  
14 thing --

15 A. (Tinus) Oh, bentonite and ACCU-VIS were for  
16 drilling for geotechnical borings.

17 Q. Oh, okay. All right. The fly ash is what is  
18 of concern to some people in the fluidized  
19 thermal backfill.

20 A. (Tinus) Right.

21 Q. And is that more concerning during the  
22 installation of it?

23 A. (Tinus) No. This is -- the fly ash is  
24 encapsulated -- the term is "encapsulated" --

1           into the product. And fly ash is composed of  
2           tiny spheres, almost like glass. So this  
3           material is part of the matrix of this whole  
4           liquid product, and then it hardens into the  
5           concrete. And when it's mixed with the  
6           Portland cement and sand and other aggregate,  
7           it provides some interstitial space for  
8           permeable characteristics to be enhanced. At  
9           the same time, it also has some structural  
10          properties that allow for it to fill into the  
11          trench very evenly, and it also settles  
12          evenly. It could be applied during freezing  
13          conditions. There's a wide variety of  
14          reasons why it's attractive for use in  
15          construction. And it's used in many, many  
16          places, as I mentioned before, around the  
17          country, around the world.

18        Q.    And should homeowners who may live on a road  
19              that this material is going to be used in,  
20              where the water table may be higher than the  
21              trench that's being filled in with this,  
22              should they be concerned about their water?

23        A.    (Tinus) Well, my understanding is that,  
24              again, in installing this, is they're going

1 to want to pump the water out and have this  
2 material installed, such that it's as dry as  
3 possible and not in contact with water. It  
4 dries fairly quickly. That's another good  
5 feature of it.

6 Q. So it's not going to leach into anybody's  
7 water table.

8 A. (Tinus) No, that's not expressed in the  
9 literature as a concern. It's not --

10 Q. Are you confident that it won't --

11 A. (Tinus) It's been studied repeatedly by  
12 different agencies. The EPA promotes its use  
13 as a product. DES has approved of it. It's  
14 fairly standard practice in a lot of parts of  
15 the country now to use it in some form.  
16 Think of bridge abutments that maybe are  
17 hollow. They backfill it with that. The Big  
18 Dig used lots of it. They've used it in  
19 urbanized settings. It's been used in a  
20 number of locations throughout the state of  
21 Maine. So those situations are very similar  
22 to what we'll have in the North Country, in  
23 terms of the temperature regime and water  
24 tables being high. So they've worked out all

1 the kinks with this material is what I feel.

2 Q. Okay. Thank you.

3 A. (Tinus) And others do as well.

4 Q. Thank you. All right.

5 Another question about the idea that  
6 perhaps you should directional drill in some  
7 locations to avoid environmental impacts of  
8 maybe, like, plant life.

9 If that were required, or if the  
10 Applicant chose to do that, do you know if  
11 that would require new transition stations in  
12 those areas?

13 A. (Carbonneau) If you have a current overhead  
14 line and you want to go to an underground  
15 line, my understanding is those need  
16 transition stations. I know that's the case  
17 on the DC line. I don't know how that works  
18 for an AC line because they're not currently  
19 proposing underground for the AC lines. So I  
20 honestly don't know exactly what kind of  
21 structure is required to do that on an AC  
22 line.

23 Q. Okay. And then the minimization measures  
24 that are subject to the "where practicable"

1 language, it's my understanding that the  
2 Applicant and the environmental monitor  
3 decide what happens when that's a question  
4 or --

5 A. (Carbonneau) No. If it's related to a  
6 wildlife species, the consultation has to  
7 occur with New Hampshire Fish & Game. So it  
8 may be the monitor and the construction team  
9 that identifies the location where compliance  
10 may not be practicable; however, what to do  
11 next, Fish & Game, or in the case of plants,  
12 Natural Heritage Bureau, has the final say on  
13 what is the least damaging way to go forward.  
14 And currently that's the way the plant AMMs  
15 are written. It requires consultation with  
16 Natural Heritage Bureau to come up with the  
17 least damaging way to move forward. And it  
18 could be, "Well, sorry, you just have to wait  
19 and do it later." That could be one of the  
20 answers. There could be another solution  
21 based on the work that needs to take place  
22 that will be protective that we hadn't  
23 thought of yet. So in the case of wildlife,  
24 that decision ultimately is made by New

1 Hampshire Fish & Game.

2 Q. Okay. So you have to follow the AMMs exactly  
3 as specified, except where the Project  
4 determines it's impracticable, not  
5 practicable, and then they have to get an  
6 alternative approved by either the New  
7 Hampshire Heritage Bureau or Fish & Game.

8 A. (Carbonneau) Correct.

9 Q. Okay. All right. I think that's all I have.  
10 I thank you.

11 I have to go to the Commission and do  
12 some PUC work, so I'm going to excuse myself.  
13 But I will read the transcript for the rest  
14 of the afternoon. Thank you.

15 A. (Carbonneau) Thank you.

16 A. (Tinus) Thank you.

17 CHAIRMAN HONIGBERG: Everything  
18 I was going to ask has been covered.

19 Mr. Iacopino, do you have any  
20 questions?

21 MR. IACOPINO: I do have a few.

22 BY MR. IACOPINO:

23 Q. The first set of questions I want to ask is  
24 about communication. Let me start at the

1 beginning.

2 When we first got notice of this filing,  
3 we did receive a number of communications  
4 from conservation commissions. And I  
5 understand that DES received a number of  
6 communications as well.

7 What, if anything, has the Project Team  
8 and you all done in terms of responding to  
9 concerns raised by conservation commissions?

10 A. (Carbonneau) Well, I can certainly speak to  
11 what we've done in terms of letters that have  
12 gone to New Hampshire DES from conservation  
13 commissions, landowners, abutters, local  
14 river advisory committees, other folks like  
15 the Forest Society. Those get passed on to  
16 the Applicant, which is standard practice.  
17 And in this case we got many of them, in  
18 groups sometimes.

19 But the New Hampshire DES Wetlands  
20 Bureau requires that the Applicant actually  
21 respond to the questioner in writing in a  
22 letter and copy New Hampshire DES on the  
23 response. And so we did that over the series  
24 of a year and a half since we filed the

1 Applications.

2 Q. And were you involved in that process --

3 A. (Carbonneau) Yes.

4 Q. -- with Normandeau?

5 A. (Carbonneau) Yes.

6 Q. Did you have any meetings with any  
7 conservation commissions?

8 A. (Carbonneau) We did. We met with several.  
9 Concord comes to mind. And several others we  
10 spoke to, or other members of the team met  
11 with them to go over, in many cases, where  
12 can I find the information relevant to my  
13 town in these application materials. So we  
14 would go with the map set that was relevant  
15 for them, help them find the kind of  
16 information they were looking for, go over  
17 the details of what the impacts would be in  
18 their town and answer their questions.

19 Q. Were there any joint meetings under the  
20 auspices of DES with, say, you know,  
21 separate -- not separate, but numerous or  
22 many, many conservation commissions?

23 A. (Carbonneau) Not that I'm aware, no.

24 Q. Okay. Also along the line of conservation --

1 of communication, throughout your testimony  
2 for the whole panel here today, we've heard a  
3 lot of, "Well, we're going to work that out,"  
4 pretty much that type of response. My  
5 question is: Who actually are the people  
6 that will be dealing with the folks at DES if  
7 the Subcommittee does what the Application  
8 requests? Will that be you all? Will it be  
9 people from Eversource itself? What's the  
10 plan for communication?

11 A. (Carbonneau) Well, Normandeau is still  
12 involved through the permitting process until  
13 the SEC decision. And so, to the extent that  
14 we've been serving as the agent for the  
15 Applicant, we will continue in that role and  
16 be the liaison with the agencies, although  
17 many times we have other folks from  
18 Eversource and Northern Pass involved in  
19 those meetings as well. Beyond that, I don't  
20 know exactly how that communication will  
21 work. We don't have a contract currently  
22 that extends beyond the permitting phase,  
23 although we've been told that we will be  
24 involved in some way. So that's a role that

1 we would like to perform, but I'm not sure  
2 exactly who that will be. Does that answer  
3 your question?

4 Q. In part. It tells me you'll be involved  
5 until the permit's issued, until the  
6 certificate's issued. But my question goes  
7 beyond that, because a lot of what the  
8 Applicant is asking for is for the ability to  
9 have -- well, actually, they're asking for  
10 this Subcommittee to delegate authority to  
11 DES, to DOT, to Fish & Game, to Natural  
12 Heritage Bureau. And my question really  
13 involves before the certificate's granted,  
14 but also if a certificate is granted, who is  
15 going to be the people that are doing that,  
16 because there's a lot of moving parts and  
17 it's easy to get lost.

18 A. (Carbonneau) The Applicant whose name is on  
19 the permit is ultimately responsible for  
20 making sure that the communications continue.  
21 There are requirements from Fish & Game and  
22 Natural Heritage Bureau for the standards of  
23 the people responsible for being the wildlife  
24 and plant liaisons to have certain

1           qualifications.  So if it's not us, it's  
2           going to be somebody with similar  
3           qualifications who's familiar with those  
4           species, has the credentials to get handling  
5           permits, et cetera.  And there are other  
6           consultants that can easily fit that role.  
7           But ultimately, it is the responsibility of  
8           the permit holder to make sure that they have  
9           the right people on board to communicate with  
10          the agencies going forward.

11        Q.    Is there a state agency communication plan or  
12            process or policy that you're aware of that  
13            your clients provided to you?

14        A.    (Carbonneau) Not that has been provided to  
15            me.

16        Q.    Switch gears a little bit, but still somewhat  
17            about communications.

18                    We were shown, I believe during Counsel  
19                    for the Public's cross-examination of this  
20                    panel, Counsel for the Public Exhibit 336 --  
21                    and I'm sure it's also got an Applicant's  
22                    number as well.  It's the "Avoidance and  
23                    Minimization Measures/Time of Year  
24                    Restrictions."  That document that has all

1 the species. Do you recall that document?

2 A. (Carbonneau) I know there are a couple and  
3 they have different dates. So one is a table  
4 that was submitted with our original  
5 Application materials, and that's probably  
6 October 2015, which has kind of been  
7 superceded by the plan sheet notes which have  
8 also been presented.

9 Q. Well, the one that was used by Counsel for  
10 the Public during cross-examination was  
11 revised February 26, 2017. And actually,  
12 when I put my glasses on, I see it's Page 4  
13 of 4. It's not the whole thing. And it's  
14 called "Avoidance and Minimization  
15 Measures/Time of Year Restrictions for  
16 Wildlife Resources by Resource." And what's  
17 on it is not really what my question is  
18 about.

19 My question is about, while being  
20 cross-examined about this, there was mention  
21 of doing wildlife sweeps. And I forget  
22 whether it was Ms. Carbonneau or Ms. Barnum  
23 who said there would be sweep reports that  
24 would be completed and that they would be

1 provided to New Hampshire Fish & Game. Does  
2 anybody recall giving that testimony?

3 A. (Carbonneau) I don't remember the exact name  
4 of sweep reports, but there are a number of  
5 field surveys for wildlife that need to take  
6 place before construction activities start in  
7 certain locations.

8 Q. Okay. And is it the plan to provide those to  
9 DES or to Fish & Game? And that's really  
10 what I'm getting at is where the line of  
11 delegation is going to go.

12 A. (Carbonneau) In my experience -- and I can't  
13 give you an answer right now. I don't really  
14 know exactly who they will go to. But in my  
15 experience, when I've had an issue that is  
16 related to both the state permit and a  
17 wildlife species, I would make sure that both  
18 entities got the copy because Fish & Game  
19 works their issues through the New Hampshire  
20 DES permitting process. So they're both  
21 involved, and each one is wanting to make  
22 sure they know what the other is doing and  
23 what the conditions are. So, to the extent  
24 that the wildlife-related requirements are

1 part of our state permit, we would want  
2 certainly to communicate with both agencies.  
3 And that would be my recommendation  
4 whether -- and if it's me doing it, then I  
5 would certainly do that.

6 Q. Okay. Then what I'm going to ask, then --

7 MR. IACOPINO: And Mr. Needleman  
8 and Mr. Walker, with the construction panel we  
9 made a request that you provide a list of all  
10 of the exceptions that you were looking for  
11 from DOT. But I'm going to ask on behalf of  
12 the Subcommittee that you provide a list of all  
13 of the conditions that are going to require  
14 communication with a state agency and  
15 identifying the state agency. And when I say  
16 "require communication," that means either  
17 consult with, agree with or get approval from.  
18 If you could provide us with a list similar to  
19 what you're doing with respect to the  
20 construction panel so that the Committee has,  
21 before we go into deliberations, has an exact  
22 idea of the extent of the delegation that  
23 you're looking for.

24 MR. NEEDLEMAN: We'll do that.

1 MR. IACOPINO: Thank you.

2 BY MR. IACOPINO:

3 Q. Ms. Carbonneau, maybe you know this, and this  
4 is just to help me out. Can you tell us --

5 MR. ROTH: Mr. Iacopino, excuse  
6 me. With respect to that request, you had  
7 mentioned that it be made before you go into  
8 deliberations. For our purposes, we would  
9 probably like to see it enough before  
10 deliberations so we can take it into account  
11 when we're doing closing briefs. Is that  
12 possible?

13 MR. IACOPINO: Mr. Needleman or  
14 Mr. Walker? Obviously the Chair will make that  
15 decision, not me. I'm just asking for it.

16 CHAIRMAN HONIGBERG: I'm just  
17 listening. Mr. Needleman.

18 MR. NEEDLEMAN: I'm not sure of  
19 the exact timing. I understand what Mr. Roth  
20 is requesting, and we'll do our best to get it  
21 done expeditiously.

22 CHAIRMAN HONIGBERG: Yeah, I do  
23 think that the parties all probably want to see  
24 that and will want to make arguments based on

1           it. So I think, to the extent you can put it  
2           together, and even if it needs to be revised  
3           after you figure out something else through  
4           further conversations, I think we're all on the  
5           same page with that. Thank you.

6 BY MR. IACOPINO:

7 Q. Can you just give us a breakdown of the, if  
8           you have it in front of you, the permanent  
9           and temporary wetlands impact in each section  
10          of the Project? And when I say "each  
11          section," I mean the northern section where  
12          there's a new right-of-way, the underground  
13          section that's from Bethlehem to I think  
14          Bridgewater, and then the southern section.

15 A. (Carbonneau) I think I can.

16 Q. Okay.

17 A. (Carbonneau) But you'll have do bear with me  
18          for a moment while I find it.

19 Q. Okay.

20 A. (Carbonneau) Would you like those in acres?

21 Q. I would -- do you have it in both? Because  
22          the reason why I'm asking the question is I  
23          got confused between what I thought was  
24          148 acres and then 6 million square feet.

1 So...

2 A. (Carbonneau) Sure. And I will warn you that  
3 the information I have here is summarized in  
4 13 categories, so this could take a few  
5 minutes. But --

6 Q. Well, is there a page you're reading from  
7 that you can just refer me to?

8 A. (Carbonneau) I could, yes. And I will also  
9 warn you that this is from our report, and so  
10 the numbers have been revised slightly based  
11 on more recent submittals to New Hampshire  
12 DES.

13 But in our Wetland, Streams, Rivers --  
14 sorry -- Wetlands, Rivers, Streams and Vernal  
15 Pools Resource Report and Impact Analysis, on  
16 Page 5-5, Table 90 summarizes direct impacts  
17 to the wetlands, rivers, streams and vernal  
18 pools. So that would be permanent and  
19 temporary in all those categories for each  
20 section of the Project, N1, N2, C1, all that,  
21 plus transition stations, et cetera. And  
22 then the table directly following that,  
23 Table 91, is the summary of secondary impacts  
24 in those same categories.

1           So, again, these have changed very  
2           slightly on the order of, you know, less than  
3           20,000 square feet or so of temporary impacts  
4           since they changed a little bit over this  
5           winter.

6    Q.    Thank you.  And I understand in some of your  
7           responses to, I believe it was Ms. Manzelli,  
8           that basically your overall position  
9           regarding these wetlands impacts, although it  
10          sounds like there's a lot, none of the areas  
11          are really that large.  Is that a correct  
12          summary of basically what you tried to relay  
13          to her?

14   A.    (Carbonneau) The permanent impacts -- there's  
15          one transition station that has the majority  
16          of the permanent impacts of almost an acre,  
17          and that's Transition Station 1.  Then  
18          there's the Deerfield Substation and  
19          Transition Station 5 are other locations  
20          where there are wetland impacts.  All of the  
21          rest of the permanent impacts are scattered  
22          in very small increments along the entire  
23          right-of-way.  So, from the permanent impact  
24          standpoint, there's a couple spots where

1           there's more than typical, and then very  
2           small ones elsewhere.

3                     For temporary impacts, there are very  
4           small chunks here and there, and then there  
5           are a few very large wetlands that we just  
6           can't find a way to get around. And so the  
7           Project will have to mat across them to get  
8           to a series of structure locations. Some of  
9           the wetlands are large.

10    Q.    Am I correct in my understanding that most of  
11           those larger areas are in Deerfield and down  
12           in that area of the line where Mr. Berglund  
13           showed us behind his house and Mr. Cote's  
14           property and the Menard properties?

15    A.    (Carbonneau) Actually, the largest wetlands,  
16           for the most part, are up in the Whitefield  
17           and North UMBERLAND area. There are a number  
18           of wetlands in Deerfield where there are a  
19           couple of ponds and things where the  
20           crossings are, you know, a little longer than  
21           in other places. But most of those really  
22           long crossings are in the N1 -- or N2 and C1  
23           portion of the Project area, which are north  
24           of the White Mountains.

1 Q. And you testified, and I believe I read it in  
2 one of the reports, actually, in the DES  
3 conditions, that you took approximately 1400  
4 photos of wetland areas that would be  
5 affected?

6 A. (Carbonneau) Well, we delineated almost 2,000  
7 wetlands, and we took two photos of each. So  
8 in our records we probably have about 4,000  
9 photos. We didn't submit them all to New  
10 Hampshire DES. That was the one waiver we  
11 requested, to give them photos of the  
12 permanent wetland impact areas, as well as  
13 photos of representative wetlands that we  
14 actually described in the report. And they  
15 were okay with that. But we do have photos  
16 of all of them.

17 Q. Actually, I think there were -- the 1400  
18 number is temporary wetlands impacts. Does  
19 that sound familiar?

20 My question, again, though, goes back to  
21 communications. Were you asked to provide  
22 those in discovery during the course of this  
23 proceeding?

24 A. (Carbonneau) I believe we were asked to

1 provide photos of all of the -- all of the  
2 photos and all of the data sheets we have for  
3 the Project, and I believe that was done.

4 Q. And they were provided in discovery?

5 A. (Carbonneau) Yes.

6 MR. IACOPINO: I guess the only  
7 other thing I wanted to make sure we clarify is  
8 Mr. Way's request. He had made a request  
9 regarding the fly ash components. I understood  
10 that to be a data request to the Applicant as  
11 to what was in that mixture. Is that...

12 MR. WAY: No, I don't believe  
13 so. I think we were trying to clarify where it  
14 fell under the solid waste rules, the citation.

15 I think we have a pretty good  
16 pathway, Mr. Tinus, from what we were talking  
17 about, where it falls. But I think since it  
18 falls in a few different places within the  
19 solid waste rules, particularly within I  
20 think ENV whatever 1500 of the certified  
21 waste-derived products, it would be good to  
22 get the actual citation that addresses where  
23 it falls. And you had mentioned that you  
24 only had conversations back and forth with

1 DES on the issue.

2 WITNESS TINUS: Yeah, I didn't  
3 personally. One of the attorneys spoke with  
4 DES.

5 MR. WAY: So it would be good to  
6 get the actual citation.

7 WITNESS TINUS: Yes.

8 MR. WAY: Okay.

9 MR. IACOPINO: I just wanted to  
10 make sure we were clear in the record as to  
11 what we were expecting.

12 I have no other questions.

13 CHAIRMAN HONIGBERG: Anyone else  
14 on this Committee have any questions for this  
15 panel?

16 MR. WRIGHT: I just wanted to  
17 note, Mr. Chairman, that I did have a couple  
18 questions on air quality for Mr. Varney, who is  
19 not here, but I understand I'll have a chance  
20 to ask those when he returns as part of another  
21 panel.

22 CHAIRMAN HONIGBERG: That's  
23 right.

24 MR. WALKER: That's fine. Yes.

1 CHAIRMAN HONIGBERG: When Mr.  
2 Varney left, we clarified that we might have  
3 questions for him when he returns.

4 Anything else for the three  
5 who remain?

6 [No verbal response]

7 CHAIRMAN HONIGBERG: All right.  
8 Mr. Walker.

9 MR. WALKER: Just before we get  
10 started, I wanted to reference a couple of the  
11 exhibits that were asked about. And just now,  
12 Mr. Iacopino, you asked about that report that  
13 Ms. Carbonneau testified to. And that is  
14 Exhibit 1, Appendix 31. And I think she gave a  
15 particular page reference.

16 And then, Mr. Wright, earlier  
17 you asked about the list of communications  
18 with the agencies. Exhibit 124, and that  
19 provides the list of I think it's 216  
20 communications up through April of this year,  
21 I believe.

22 And then, lastly, Ms.  
23 Dandeneau, you asked about the Fisheries and  
24 Aquatics Report. That's Exhibit 1,

1 Appendix 33.

2 MS. DANDENEAU: Thank you.

3 MR. WALKER: You're welcome.

4 REDIRECT EXAMINATION

5 BY MR. WALKER:

6 Q. Ms. Carbonneau, Mr. Wright and Mr. Iacopino  
7 asked you generally about communications with  
8 the agencies, so I'm not going to delve into  
9 that issue. Generally you've explained that.  
10 But I do want to ask you about a couple of  
11 particular communications that Ms. Manzelli  
12 was asking you about last week. And she  
13 asked you a number of questions about the  
14 April 2016 letter from Fish & Game, and it  
15 was to the Department of Energy, in which the  
16 Fish & Game provided comments on the Draft  
17 EIS. Do you remember that?

18 A. I do.

19 MR. WALKER: And Dawn, can you  
20 pull that up, please? That was CFP  
21 Exhibit 337.

22 BY MR. WALKER:

23 Q. And that's the letter you were referencing?

24 A. (Carbonneau) Yes.

1 Q. Can you describe generally what that letter  
2 is?

3 A. (Carbonneau) Yes. It's a typical letter that  
4 a state agency would write to the lead  
5 federal agency who's preparing a draft EIS on  
6 a project. It usually identifies any issues  
7 they have that they feel weren't addressed  
8 and makes recommendations of things to  
9 include in the final EIS.

10 Q. Since the time of that letter, have you had  
11 follow-up with the Fish & Game?

12 A. (Carbonneau) Yes, we've been working closely  
13 with Fish & Game to address concerns. Some  
14 of these concerns were already addressed by  
15 us in our technical reports, but some of them  
16 we've addressed since then. And I can give  
17 you a few examples.

18 Q. Sure.

19 A. (Carbonneau) For example, in this letter they  
20 requested a quantification of Karner blue  
21 butterfly impacts. So we actually got  
22 trained by Fish & Game to go out and do egg  
23 surveys for Karner blue butterflies. And we  
24 provided that survey information to both Fish

1           & Game and the U.S. Fish and Wildlife  
2           Service, along with our proposal for  
3           mitigating impacts Karner blue butterflies,  
4           both of which were accepted by them. And  
5           even since that time we've been able to  
6           reduce impacts to lupine, which I think will  
7           also reduce impacts to Karner blue  
8           butterflies. So we've addressed that.

9           This letter also included some concerns  
10          about the movement of lynx and marten and  
11          other wildlife across the new right-of-way in  
12          the North Country. And we gave some effort  
13          to tracking surveys both up north and in the  
14          existing right-of-way and determined that  
15          lynx and marten are using the existing  
16          right-of-way as well.

17          But we went further than that. We  
18          worked with the Eversource maintenance folks  
19          to identify locations along the new  
20          right-of-way where higher vegetation, taller  
21          vegetation could be left to act as sort of a  
22          vegetated pathway between forested areas on  
23          either side that would be beneficial to the  
24          movement of wildlife. And many of these are

1           actually along riparian areas because they're  
2           in valleys where there's sufficient line  
3           clearance above the ground to allow that kind  
4           of movement. Wil Stats from Fish & Game went  
5           out and looked at the locations we suggested.  
6           He really liked them, and he came up with a  
7           few other places he'd like us to consider.  
8           So we're working to increase the number of  
9           these vegetated crossings.

10                   Fish & Game also brought up issues with  
11           their concerns about high-elevation areas and  
12           deer wintering areas. We're addressing those  
13           through time-of-year constrictions on certain  
14           construction activities.

15                   And as far as their comments on rare,  
16           threatened and endangered species, we've been  
17           working with them to develop avoidance and  
18           minimization measures for those as well.

19                   So this letter is not a current report  
20           of where our consultation with Fish & Game  
21           stands at this point. We've done a lot of  
22           work since then.

23           Q.    Thank you. And Ms. Manzelli also brought up  
24           a May 2016 progress report from the DES. Do

1           you recall that?

2       A.     (Carbonneau) I do.

3                               MR. WALKER:   Dawn, if you could  
4       bring that up, please.  It's Exhibit 62, and  
5       it's Bates 35043.  Can you see that on the  
6       screen?

7       A.     (Carbonneau) Yes.

8       Q.     And Ms. Manzelli -- well, just generally  
9       speaking, what are these progress reports  
10      from the DES?

11      A.     (Carbonneau) This was a progress report based  
12      on the information that we submitted with our  
13      applications that New Hampshire DES had  
14      reviewed.  And it's a combination of the  
15      progress of their review and also their  
16      request for additional information for  
17      anything they had questions about.

18      Q.     And Ms. Manzelli asked you particularly about  
19      Request No. 1, which looks like it was --  
20      it's blown up on the screen.  And DES was  
21      asking questions about the alternative route  
22      along Route 3, correct, or an alternative  
23      route?

24      A.     (Carbonneau) An alternative route in the

1 northern part of the Project area that would  
2 go down Route 3.

3 Q. And Ms. Manzelli asked you whether you  
4 thought DES was questioning the legality of  
5 the proposed project, and you were not  
6 allowed to explain. You said you did not  
7 agree with her, but you were not allowed to  
8 explain. Can you explain why you do not  
9 think they were questioning the legality of  
10 it?

11 A. (Carbonneau) Well, the Project contacted New  
12 Hampshire DES as soon as this letter was  
13 received to actually get clarification on  
14 what it was they were looking for and whether  
15 or not they had actually intended to make a  
16 decision about the Project already. And they  
17 replied via e-mail that, no, they had not  
18 made a decision. They were actually looking  
19 for more information about why an alternative  
20 along the underground section of the road was  
21 not included in our package. So we then  
22 provided information, and I think this is  
23 actually an excerpt from our response to  
24 them, that indicated that the Project --

1 provided all of the analysis that the Project  
2 wanted DES to have about why that route --  
3 why a plan view of that route was not  
4 included. And they considered this to be a  
5 sufficient response.

6 Q. And after that, did you continue to work with  
7 and communicate with the DES on this issue?

8 A. (Carbonneau) Yes. Yes. In fact, we've been  
9 working with them on issues all along, up  
10 until their final approval.

11 Q. Well, with regard to that final approval --  
12 and Mr. Wright asked you about the various  
13 application permits that were approved by the  
14 DES with its final approval, and one of those  
15 was the Wetlands Application; correct?

16 A. (Carbonneau) That's correct.

17 Q. And by way of the approval of that  
18 application under the applicable regulations  
19 in New Hampshire, is that -- is it your  
20 understanding that the DES found that  
21 Applicants have avoided or minimized impacts  
22 to the wetlands to the maximum extent  
23 practicable?

24 A. (Carbonneau) Yes. Their approval would imply

1           that we've met their standards for avoiding  
2           and minimizing impacts. And in addition, of  
3           course, we provided a mitigation package for  
4           the unavoidable impacts as well.

5       Q.    With regard to wetlands, Ms. Manzelli asked  
6           you -- we were talking a lot about the amount  
7           of impact. And Mr. Iacopino asked you today.  
8           With regard to the permanent impact, the  
9           amount being permanently impacted is less  
10          than two and a half acres; is that right?

11       A.   (Carbonneau) It's just about two and a half  
12          acres, yes.

13       Q.    And I'm going to represent to you, and I know  
14           we've done this math, but if you were to look  
15           at -- and this information is in the public  
16           lease docket -- the total amount of acres  
17           being occupied by the Project is  
18           approximately 1754 acres; is that right?

19       A.   (Carbonneau) I believe that's the right  
20          number, yes.

21       Q.    So, if about two and a half acres of wetlands  
22           are being permanently impacted by the  
23           proposed project, that means permanent  
24           impacts to the wetlands will constitute about

1           one tenth of one percent of the land occupied  
2           by the Project; is that right?

3       A.     (Carbonneau) That would be right.

4       Q.     Now, on a separate issue, last week Ms.  
5           Bradbury was questioning you about an access  
6           road going through a vernal pool in the  
7           Deerfield area. Do you recall that?

8       A.     (Carbonneau) I do.

9                           MR. WALKER: And Dawn, if you  
10           could bring up Bates 27302.

11   BY MR. WALKER:

12   Q.     What's shown on the screen here, Ms.  
13           Carbonneau?

14   A.     (Carbonneau) This was the plan view in our  
15           wetlands permitting package showing the  
16           access road as it was originally proposed  
17           that does go through the center of the vernal  
18           pool, which is outlined in the magenta color.

19   Q.     And you've explained that since that time  
20           there has been a change and an effort to  
21           avoid the access road going through the  
22           vernal pool; is that right?

23   A.     (Carbonneau) That's right.

24   Q.     And Ms. Bradbury was asking you whether that

1 information has been provided to the SEC or  
2 to the DES. And it has been provided; is  
3 that right?

4 A. (Carbonneau) Yes. It was part of the revised  
5 plans that were given to New Hampshire DES  
6 and SEC.

7 MR. WALKER: Dawn, can you bring  
8 that up, please? And that's Bates 44340.

9 BY MR. WALKER:

10 Q. Can you just describe what this is showing?

11 A. (Carbonneau) This is the current plan for the  
12 access road that will go through -- go across  
13 the right-of-way in the same location, but  
14 now veers up and around the vernal pool.

15 Q. And that was submitted in January of 2017 in  
16 the DES; is that right?

17 A. (Carbonneau) Yes.

18 Q. So turning now to the northern hardwood  
19 seepage forest. Today, earlier today, you  
20 had a discussion with Dr. Publicover, and he  
21 was asking you about the exchange of e-mails  
22 that took place last week with the NHB. And  
23 basically, the NHB, although they acknowledge  
24 the logging in that area, they corrected and

1           said, well, they still consider it exemplary;  
2           is that right?

3       A.     (Carbonneau) Yes, I believe that's how I  
4           interpreted that e-mail.

5       Q.     Now, having that e-mail, does this in any way  
6           change your opinion, as far as the effect of  
7           the natural environment by the proposed  
8           project?

9       A.     (Carbonneau) It doesn't change my opinion.  
10           Our assessment was based on the fact that at  
11           the time we conducted our assessment, it was  
12           considered an exemplary natural community.

13           And so our impact assessment, as well as our  
14           mitigation package, all assumed that it was  
15           an exemplary natural community in any case.

16       Q.     And this may have been -- I'm turning now to  
17           the AMMs and the BMPs. And Ms. Bailey asked  
18           this. For the most part, I think you've  
19           answered it. But yesterday, or last week,  
20           Attorney Connor was asking you about the AMMs  
21           and the BMPs. And she suggested that where  
22           the language "to the extent practicable" was  
23           used, that served as sort of an escape clause  
24           for the Project. Is that really how the

1 process works?

2 A. (Carbonneau) No. There is no escaping from  
3 these agreed AMMs, even if it says "to the  
4 extent practicable." The agencies will have  
5 the last word on what happens and when it  
6 happens in those locations.

7 Q. Okay. Thank you.

8 Mr. Tinus, this also is following up on  
9 a question by Ms. Bailey. She asked you  
10 about the use of fly ash in the fluidized  
11 thermal backfill, which I'll refer to as  
12 "FTB." And you mentioned -- and I think  
13 Mr. Lakes asked you last week as well. Is  
14 there a concern with leaching of the fly ash  
15 from the FTB?

16 A. (Tinus) No.

17 Q. And you referenced some EPA guidance, and I  
18 wanted to bring up --

19 MR. WALKER: Dawn, if you could  
20 bring up Exhibit 177, please.

21 (Exhibit APP 177 marked for  
22 identification.)

23 BY MR. WALKER:

24 Q. Is this the guidance that you were referring

1 to?

2 A. (Tinus) That's correct.

3 Q. And this provides a discussion of the use of  
4 fly ash and concrete FTB, et cetera?

5 A. (Tinus) Correct.

6 Q. Mr. Oldenburg asked you earlier today about  
7 some communications with the Department of  
8 Transportation regarding FTB. Was there some  
9 recent communication with the DOT regarding  
10 FTB?

11 A. (Tinus) There was. And that indicates that  
12 there is an ability for this material to be  
13 permeable and --

14 Q. Let me ask before you go on. I just want to  
15 bring that up.

16 MR. WALKER: Dawn, if you could  
17 bring up Exhibit 174, please.

18 (Exhibit APP 174 marked for  
19 identification.)

20 BY MR. WALKER:

21 Q. Is this what you were referring to?

22 A. (Tinus) Yes, it is. Yeah.

23 Q. And I'm sorry. You were explaining what that  
24 communication was.

1 A. (Tinus) Yeah. Basically that the properties  
2 of the material indicate -- the testing of  
3 the properties of material indicate it has  
4 permeability, and that's what the supplier of  
5 the material was representing.

6 Q. Mr. Tinus, Ms. Pastoriza asked you a number  
7 of questions about the geotechnical boring  
8 work that took place last year along the  
9 underground section of the route up in the  
10 town of Easton. Do you recall those  
11 questions?

12 A. (Tinus) Yes, I do.

13 Q. Are you aware that Ms. Pastoriza filed a  
14 complaint with the New Hampshire DES  
15 regarding that issue?

16 A. (Tinus) Yes.

17 Q. And what happened after she made that  
18 complaint?

19 A. (Tinus) Well, the agencies went and inspected  
20 the locations -- the agencies being DES and  
21 the U.S. Forest Service -- and they  
22 determined that there were no issues  
23 associated with the activities that they  
24 observed.

1 Q. Are you aware that the DES responded in  
2 writing to Ms. Pastoriza?

3 A. (Tinus) Yes.

4 MR. WALKER: Dawn, could you  
5 pull up Exhibit 178, please. If you could blow  
6 up the first paragraph.

7 (Exhibit APP 178 marked for  
8 identification.)

9 BY MR. WALKER:

10 Q. Is this the letter you're referring to, Mr.  
11 Tinus?

12 A. (Tinus) Yes, that's correct.

13 Q. And I'm blowing up the first paragraph. But  
14 if you could just explain the gist of what  
15 the DES response was.

16 A. (Tinus) Basically they needed to determine  
17 whether or not there was any violations of  
18 the state wetland law.

19 MR. WALKER: And then, Dawn, if  
20 you could blow up a second paragraph, please.

21 A. (Tinus) And this paragraph explains that they  
22 concluded there was no water quality  
23 violation.

24 BY MR. WALKER:

1 Q. Ms. Barnum, just a few questions for you.

2 Yesterday and last week -- I'm sorry.

3 Last week you were asked a number of  
4 questions about deer wintering areas that  
5 could be impacted by the Project, and I  
6 wanted to follow up on some of those  
7 questions.

8 First of all, with regard to the  
9 construction of the Project itself, do you  
10 anticipate that there will be any direct deer  
11 kill by way of the construction itself?

12 A. (Barnum) I don't expect that. The activity  
13 and disturbance associated with construction  
14 could potentially lead to some elevated  
15 stress to deer using wintering areas during  
16 the wintertime, if those activities occurred  
17 during the wintertime. But I wouldn't expect  
18 direct mortality.

19 Q. Now, you did state in your Prefiled Testimony  
20 that there would be a small impact -- or a  
21 small amount of deer wintering area would be  
22 impacted. And you described it, and I'll  
23 refer to your Prefiled Testimony at Page 11,  
24 Line 99. You noted that less than 1 percent

1 of the deer wintering areas intersected by  
2 the Project will be cleared.

3 Do you expect this level of impact to  
4 the deer wintering areas will cause direct  
5 mortality to deer?

6 A. (Barnum) I do not.

7 Q. So I want to put this in context. Are you  
8 also familiar with statistics maintained  
9 about the annual deer kill in New Hampshire  
10 by hunting alone?

11 A. (Barnum) Yes, I am.

12 Q. Are you familiar with the Fish & Game data in  
13 that regard?

14 A. (Barnum) Yes. Fish & Game records indicate  
15 that, on average over the last 20 years, just  
16 a little bit less than 11,000 deer are taken  
17 by hunters each year.

18 MR. WALKER: If, dawn you could  
19 pull up Exhibit 176.

20 (Exhibit APP 176 marked for  
21 identification.)

22 BY MR. WALKER:

23 Q. And I'll represent to you, Ms. Barnum -- or  
24 Dr. Barnum, this is from the Fish & Game web

1 site. Have you seen this?

2 A. (Barnum) Yes, I have.

3 Q. And this is the reference to 11,000 deer?

4 A. (Barnum) Correct.

5 Q. Turning to the clearing in the north part of  
6 the state associated with the 32 miles of new  
7 right-of-way, your testimony, I believe, was  
8 somewhere in the range of about 470 acres  
9 would be cleared by proposed project?

10 A. (Barnum) That's correct.

11 Q. And that runs through six towns; am I right?  
12 It's Pittsburg to Dummer?

13 A. (Barnum) Correct.

14 Q. And we've been referring to that as the "N1"  
15 section?

16 A. (Barnum) Yes.

17 Q. This is an area that's regularly logged; is  
18 that right?

19 A. (Barnum) Yes. Forestry activities are common  
20 throughout the North Country.

21 Q. Are there statistics maintained for the  
22 amount of logging that's done in that area?

23 A. (Barnum) Yes. The landowners who log have to  
24 submit the acreage log for tax purposes.

1 MR. WALKER: Dawn, could you  
2 pull up Exhibit 175, please.

3 (Exhibit APP 175 marked for  
4 identification.)

5 BY MR. WALKER:

6 Q. Dr. Barnum, have you seen this table that's  
7 on the screen, and can you tell us what it  
8 is?

9 A. (Barnum) Yes, this table summarizes the  
10 amount of acres cut per town for the last  
11 three years and then presents an average of  
12 that average cut per town and a total, and  
13 then compares the amount that's being cut on  
14 average per year for forestry purposes by  
15 town to the amount that will be cut one time  
16 by the proposed project.

17 Q. And just to be clear, this data was pulled  
18 from the DRA?

19 A. (Barnum) Yes, that's correct.

20 Q. And compiled by Normandeau?

21 A. (Barnum) Yes.

22 Q. So, for those six towns, what's the  
23 approximate average amount of acres being  
24 logged every year?

1 A. (Barnum) On average for those six towns over  
2 the last three years there's been about  
3 8,000 acres cut per year.

4 Q. So do you think that the one-time clearing of  
5 470 acres associated with the proposed  
6 project would have a significant negative  
7 effect on wildlife habitat?

8 A. (Barnum) I do not. The species that use the  
9 North Country are adapted to living with a  
10 fairly high rate of logging and tree removal.  
11 So a little -- the acres added [sic] by the  
12 Project are relatively insignificant in  
13 comparison.

14 Q. Nothing further. Thank you.

15 CHAIRMAN HONIGBERG: I think  
16 we're done with the environmental panel.

17 Apparently you have a question  
18 for Mr. Needleman?

19 MR. IACOPINO: Yes. Is there  
20 going to be something about the MTBE addressed  
21 with this panel?

22 (Off-the-record discussion among  
23 Applicant and counsel.)

24 CHAIRMAN HONIGBERG: Mr. Bisbee.

1 MR. BISBEE: Just for  
2 clarification for Mr. Iacopino, I can provide  
3 some clarification for you in terms of the  
4 Phase IA review that was done for much of the  
5 route. Are you asking for that, or are you  
6 asking for follow-up on what is going to happen  
7 when MTBE, if it is encountered, what will  
8 happen?

9 MR. IACOPINO: I understood,  
10 based on a comment made to me during the break,  
11 that there would be some correction of Ms.  
12 Carbonneau's testimony with respect to MTBE.

13 MR. BISBEE: I think she can  
14 provide that clarification. So I would ask her  
15 to do that.

16 This is on the question of  
17 whether Normandeau did a complete 1A or  
18 something comparable.

19 WITNESS CARBONNEAU: Right. So  
20 we have done complete Phase I site assessments  
21 for some of the properties owned by the  
22 Project. But along the underground corridor  
23 and the overhead corridor, we did sort of a  
24 modified Phase I site assessment, which

1 included a data base search, as well as a  
2 drive-through. But it didn't -- well, not on  
3 the overhead right-of-way, but for the  
4 underground right-of-way. But it did not  
5 include the field investigation portion of that  
6 where you would do a walk-through of the entire  
7 area. So, sort of a modified Phase I site  
8 assessment.

9 CHAIRMAN HONIGBERG: So it was a  
10 Phase I, except for the walk-through? Is there  
11 anything else that would normally be part of a  
12 Phase I that didn't happen?

13 WITNESS CARBONNEAU: Well,  
14 typically if you're doing a parcel, you're also  
15 looking at the property boundaries to make sure  
16 that those are accurately recorded. But in  
17 this case, we're talking about a right-of-way  
18 which isn't necessarily marked in the field  
19 with property markers. So that is another  
20 aspect of it that was not done. But I would  
21 say the on-the-ground foot patrol portion of it  
22 was not conducted.

23 CHAIRMAN HONIGBERG: Okay. So  
24 other than the on-the-ground foot patrol and

1 looking at the boundaries, which I understand  
2 why you might not have done that in this  
3 context, anything else that wasn't done that  
4 would normally be done as part of a Phase I?

5 WITNESS CARBONNEAU: Not to my  
6 knowledge. But I am not the expert in that  
7 field, so if there's any other small  
8 difference, I'm not aware of it.

9 CHAIRMAN HONIGBERG: Who would  
10 be the expert in that field who's part of this  
11 panel?

12 WITNESS CARBONNEAU: Well, he's  
13 not on this panel. It was a Normandeau  
14 exercise or task, if you will. But it was  
15 conducted by someone who has many years of  
16 experience doing site assessment work.

17 CHAIRMAN HONIGBERG: Mr. Bisbee.

18 MR. BISBEE: One follow-up  
19 question of the witness, if I may.

20 Ms. Carbonneau, do you know  
21 whether interviews were done of individual  
22 properties other than as normally would be  
23 the case with Phase 1A site assessments?

24 WITNESS CARBONNEAU: No, not to

1 my knowledge.

2 CHAIRMAN HONIGBERG: Okay.

3 Anything else, Mr. Bisbee, as we're knocking  
4 things off?

5 MR. BISBEE: That's the only  
6 question that comes to mind, Mr. Chairman.

7 CHAIRMAN HONIGBERG: All right.  
8 Now are we done with these poor people?

9 [No verbal response]

10 CHAIRMAN HONIGBERG: All right.  
11 Mr. Needleman.

12 MR. NEEDLEMAN: I was saying I  
13 think so.

14 CHAIRMAN HONIGBERG: All right.

15 MR. NEEDLEMAN: Can we move on  
16 to a scheduling issue?

17 CHAIRMAN HONIGBERG: I think so.  
18 Just before you do that, you guys can leave  
19 that witness box, because if you don't someone  
20 may ask you another question.

21 Mr. Needleman.

22 MR. NEEDLEMAN: So our next  
23 witness was supposed to be Ms. Shapiro,  
24 followed by Mr. Nichols. I had a conversation

1 at the break with counsel for a number of  
2 parties about my concern with doing it in that  
3 order as opposed to putting Mr. Nichols up  
4 first. The concern is that Mr. Nichols is  
5 available for the next three hearing days and  
6 then has a significant conflict. By contrast,  
7 Ms. Shapiro is available for quite a bit longer  
8 than that. And if we start with her, I have  
9 fear we may not be able to finish Mr. Nichols  
10 within his window. So I would prefer to start  
11 with Nichols and then go to Shapiro. My sense  
12 is that that seems agreeable to most folks,  
13 though I know Mr. Pappas wanted to raise at  
14 least one issue.

15 CHAIRMAN HONIGBERG: Mr. Pappas.

16 MR. PAPPAS: The issue Counsel  
17 for the Public has is we may need to switch the  
18 order of our questioning. If we're going to  
19 start with Mr. Nichols, we may need to go last  
20 as opposed to our typical order, or in the  
21 middle somewhere, because we had a problem with  
22 the 18th with Mr. Nichols.

23 CHAIRMAN HONIGBERG: I assume  
24 that that's not a problem for others. I know

1           it's often easier for the parties who follow  
2           you to let you take the lead and do what you're  
3           going to do.

4                        I mean, does anyone have any  
5           strong concerns about that from the  
6           intervenor groups?

7                        [No verbal response]

8                        CHAIRMAN HONIGBERG: All right.  
9           Sounds like the answer to that is "No" since  
10          there was silence from the room. That makes  
11          sense to me. I don't think there's any reason  
12          why we would -- why it would matter to us.

13                       The next time we're together  
14          is Tuesday, July 18th; correct?

15                       MR. NEEDLEMAN: Yes.

16                       CHAIRMAN HONIGBERG: And I think  
17          we have Tuesday, Wednesday, Friday that week?

18                       MR. NEEDLEMAN: Correct.

19                       CHAIRMAN HONIGBERG: With  
20          Thursday for public comment; is that right?

21                       MR. NEEDLEMAN: That's my  
22          understanding.

23                       CHAIRMAN HONIGBERG: All right.

24                       MR. REIMERS: Can I ask -- Jason

1 Reimers.

2 CHAIRMAN HONIGBERG: Mr.

3 Reimers.

4 MR. REIMERS: Just to clarify,  
5 so it will be Nichols, Shapiro and then  
6 Chalmers?

7 MR. NEEDLEMAN: Nichols,  
8 Shapiro, and then whatever the schedule was  
9 that we presented last week. I can't remember  
10 who was next. If it was Chalmers, then yes.

11 MR. REIMERS: Okay. Thanks.

12 CHAIRMAN HONIGBERG: Anything  
13 else?

14 [No verbal response]

15 CHAIRMAN HONIGBERG: All right.  
16 Thank you all. We will adjourn for the day.

17 (Whereupon the hearing was adjourned at  
18 4:40 p.m.)

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