## STATE OF NEW HAMPSHIRE <br> SITE EVALUATION COMMITTEE

October 24, 2017-9:00 a.m. DAY 51
49 Donovan Street Morning Session ONLY Concord, New Hampshire
\{Electronically filed with SEC on 11-06-17\}

IN RE: SEC DOCKET NO. 2015-06 Joint Application of Northern Pass Transmission, LLC, and Public Service Company of New Hampshire d/b/a Eversource Energy for a Certificate of Site and Facility.
(Hearing on the merits)
PRESENT FOR SUBCOMMITTEE/SITE EVALUATION COMMITTEE:
Chrmn. Martin P. Honigberg Public Utilities Comm. (Presiding as Presiding Officer)

Cmsr. Kathryn M. Bailey Public Utilities Comm. Dir. Craig Wright, Designee Dept. of Environ. Serv. Christopher Way, Designee Dept. of Business \& Economic Affairs
William Oldenburg, Designee Dept. of Transportation Patricia Weathersby Public Member

ALSO PRESENT FOR THE SEC:
Iryna Dore, Esq., Counsel for SEC (Brennan, Caron, Lenehan \& Iacopino)

Pamela G. Monroe, SEC Administrator
(No Appearances Taken)
COURT REPORTER: Steven E. Patnaude, LCR No. 052

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## PROCEEDING

CHAIRMAN HONIGBERG: Good morning, everyone. I'm told this is Day 51. Anything we need to deal with before Mr. Lakes begins questioning the panel?
[No verbal response.]
(Continuation of witness panel of Adam Zysk, Earle (Rusty)

Bascom, and David Taylor.)
CHAIRMAN HONIGBERG: Mr. Lakes, you may proceed.

MR. LAKES: Good morning. My name is Carl Lakes. I'm with the Bethlehem to Plymouth Underground Abutters. And $I$ have a number of questions for the panel today. Thank you for being here. Appreciate it. And I'll try not to go over a lot of things that we talked about yesterday, but there may be some nuanced things that I'll ask about, and that's why I'm talking about it.

BY MR. LAKES:
Q Okay. To begin, Mr. Bascom, in your testimony, you say, with regard to horizontal directional drilling, that "the Applicant has potentially
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unrealistic expectations for areas requiring the use of $H D D$ from the standpoint of both laydown area and time of construction." How does a laydown area noted in the NPT Application vary from your experience with this type of construction?

A (Bascom) Generally speaking, the footprint for the laydown area is larger from the experience I've had with other projects. And I noted a discrepancy between what was proposed with the sort of linear laydown utilizing mostly one lane of traffic, as opposed to what I've seen in other projects.

Have you had any experience, or anybody on the panel, with a linear laydown of a HDD project at all?

A (Zysk) Not like what's proposed, no.
Q So, is this a new untried type of construction?
A (Bascom) I would say my experience is generally with high voltage cables, where the length of the directional drill is on the longer side, so greater than 500 feet. And, in those circumstances, with a larger diameter cable and the resulting size of the conduits used, the
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equipment involved is much larger. In this particular case, the Applicant is intending to install 8-inch conduits individually. So, the size of equipment is more consistent with gas lines, water lines, smaller diameter bore holes. And, as a result, the laydown area could be smaller.

Q Even though the actual bore holes for most of the HDD are 18-inch, around which, at least to me, I guess, as a layman, sounds fairly big. So, that is an 18 -inch bore hole is fairly typical of a smaller type of operation requiring, $I$ guess what you're inferring, smaller equipment?

A (Bascom) That's correct, in general. Normally, the size of the bore hole needs to be, as a minimum, about one and a half times the diameter of the casing or conduit that's going to be installed.

Q Yes.
A (Bascom) And they're proposing to use, as far as $I$ can tell, an 8 -inch conduit. So, 18 to 20 inches would be a typical bore hole size to accommodate that size opening or that size
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conduit.
Q Okay. Do you think this layout will easily fit into a three rod road?

A (Bascom) As I indicated in my prepared testimony, I felt the laydown area was smaller than $I$ would anticipate for some of the lengths of the drills that they're going to be doing, considering that they're likely to encounter rock.

But, again, I would defer to, I think, Dewberry, who maybe has some experience with the civil aspect of the directional drilling to maybe respond to that.

A (Zysk) I think it's more the case they have adjusted the layout, their anticipated layout of their machinery, to work within the area that they have.

Q And this will entail moving to the edge of the right-of-way, $I$ would think, as much as possible?

A (Zysk) Yes. I would expect so.
Q So, in that regard, we can assume, as residents on 116, that this will require the removal of trees and flattening of the terrain, not only
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on the side that the rigs will be on, but also across the street, where trying to make more room will allow for traffic to drive off of the pavement so that there's more room. Would you agree with that?

A (Bascom) My understanding is that the space that they are allowed to work within is the easement or right-of-way available on a given road. And, to the extent that that area exists or is defined, my understanding is they can utilize that space. I don't know --

Q Yes. I mean, that's the big argument. It isn't defined and so forth. But I won't get into that right now.

But my basic premise of this is that, in order to do this work, $I$ can only feel, particularly in a three rod road, that the construction area will have to move over the centerline towards the other side of the road, thereby creating a situation where the traffic needs to continue, if they're going to -- or shut down the road, so they're going to have to encroach on the other side of the road and remove vegetation so that traffic can move
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through that area. Would that be a reasonable assertion?

A (Zysk) I would say, if New Hampshire DOT allows them to do that, then, yes, they will.

I guess all of that remains to be seen. Now, with regard to time of construction, the Applicant cited "three to five weeks" in the earlier hearings, which has now, from what I heard yesterday, changed to "four to six weeks", on average. I know there's some other ones that are bigger, like the microtunnel, that sort of thing, is a different thing all together. And this is including setup, drilling, tear-down, etcetera.

So, Mr. Bascom, when $I$ went through your estimates and added them up for the minimum and to the maximum, I saw your estimates were adding up to a minimum of seven weeks to a maximum of thirteen weeks from start to finish. How do you account for the discrepancy of what you say is the time frame, and putting that together with the fact that now we're talking about this end-to-end layout construction plan that is obvious, I think, to even laymen such
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as me, is going to stretch out the time of doing these projects? So, how can you square that or do you feel that the four to six weeks may be a happy thought, but not really a reality?

A (Bascom) In my experience with other projects, oriented toward transmission cable installation, the time for the work, including mobilization, actual civil and construction, and demobilization, was much longer than the Applicant indicated in their information. And that was the basis for the statements that $I$ made.

It also assumes that there are no delays, equipment breakdown, other factors, weather, that might impact the timeliness of the construction. And, given the number of directional drills, on average, I would expect that it would be imprudent to assume that every one of those is going to occur without some sort of delay, either from equipment or weather or other factors. And, on that basis, I felt that the time listed for each directional drill was, as a minimum, probably too short.
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Q Okay. Moving on. Mr. Bascom, yesterday it was stated that the "HDD starting and finishing pits need to be ten feet apart". Why is that? A (Bascom) With directional drilling, one of the aspects is the alignment and controlling the position of the drill stem, which is the initial pipe that navigates through the ground. And the sensitivity of the tracking equipment is generally on the order of around five feet or so. It could be better than that, but that's a good planning design. So, allowing for uncertainty in the directional drill, they would normally want to design with at least five feet, and perhaps a ten-foot separation, to conservatively avoid having one drill interfere with the other.

So, ten feet is actually at a more ideal for a situation such as that?

A (Bascom) Yes. That's correct.
Q Another question. So, the incoming trench that's coming towards these splice pits, I'm a little confused in terms of you've got these two cables next to each other, and then they need to split off ten feet. So, is that an
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individual trench that goes to each pit or each area that will eventually take that cable or is that all dug out as a big hole that it goes through?

A (Bascom) I'm not sure I understand the "ten-foot" that you're indicating near the splice pits.

Q Okay. I guess what I'm saying is, you have a trench, and then you've got the two conduits that will eventually go down each one of those pipes. And these two conduits are next to each other in the trench. Then they need to split off somewhere along the way to get into those bore holes, right? I was just wondering how that is done?

A (Bascom) So, I think, to understand your question, you're indicating that the nominal trench, where the separation is 18 to 24 inches between the conduits themselves, --

Q That's right.
A (Bascom) -- and then, on approach to the directional drill, there's a larger separation? Is that --

Q Yes.
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A (Bascom) Am I understanding your question?
Q That's what I'm talking about, yes.
A (Bascom) The approach to how that's addressed is the trench is widened to align the conduits individually with each of the bore holes. And there's a transition between the conduit type that might be used for the conventional open-cut trench to that which is used for the directional drilling. And the reason for the transition is the type of conduit, in particular, the wall thickness, is larger for the directional drill to accommodate the tensile forces, the pulling forces, as the conduit is pulled into the bore hole.

Q Okay. Now, it is my understanding that, at the deepest part of the HDD boring, that they're supposed to be like 20 feet apart from each other. Is that correct or is that -- I've heard that a number of times, I'm just curious on that aspect?

A (Bascom) I'm not aware that it's supposed to be 20 feet apart. If you can refer me to a drawing, $I$ might be able to comment.

Q Yeah, I wish I could. I know I've seen it
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somewhere. And I didn't know -- have any of you gentlemen been exposed to that particular --

A (Zysk) I believe I noted it, that it was mentioned in some of the earlier transcripts. Okay. So, --
(Zysk) That was their design goal.
So, I guess, you know, the point of my question is, in a space that's already constrained, say, within a three rod road, and particularly with the starter pit on the shoulder or off of the road, I'm concerned, and I'd like to get your opinion on this, could that underground bore cross into private property?

A (Bascom) I would say, given the tolerance of the directional drill, it's possible that it would deviate from the alignment that is planned. And, to the extent that the bore alignment is positioned near the edge of the right-of-way, it's possible it could go outside of that perimeter, --

Q There is a --
A (Bascom) -- that barrier.
Okay. Thank you. There actually is a drawing,
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and I guess I wish I had it with me today, but there is an actual HDD drawing in Easton where the actual path of the bore does go right under somebody's property. I mean, it's so clear. But, anyway, $I$ just want to bring that up as an issue that needs to be thought about as we move along.

Staying with HDD, NPT has continually stated that they plan on working from 7:00 a.m. to 7:00 p.m. Now, when boring the initial pilot hole, which $I$ understand is actually the most important hole when you actually start an HDD, is it standard procedure to stop and walk away at 7:00 p.m., in the midst of a pilot hole?

A (Bascom) It depends on the geology that's involved. In some cases, if the bore hole is expected to be stable, it's possible to interrupt the work and then resume. My understanding is much of the drilling may be done in rock, and that would generally be consistent with a stable environment for a bore hole. And depending on the type of equipment that might be used, they could restart and
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continue directional drilling to establish that bore hole.

Q But $I$ guess, if it's unstable, and the worker is pushing his pilot bore, 7:00 p.m. comes and there's concerns about this thing collapsing or whatever, what would be your mode of operation at that point or what would be the way to move forward or would you just stop? What makes sense?

A (Bascom) Generally speaking, the riskier part of directional drilling as a process is the pull-back of the conduit or the casing. Because, at that point, if they stop, there may be some collapse of the bore hole. And that's -- that part of the operation generally will continue on a continuous basis until they complete the exact entire pull-back. The pilot hole, establishing the pilot hole, may be interrupted, and I've seen that interrupted on some projects. I can't speak specifically to all the locations that are involved with the potential Northern Pass Project.

Q Okay.
A (Bascom) But it is possible you can stop and
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resume work on a shift basis.
Q So, with a blanket -- a blanket statement that "these machines will be operational between 7:00 a.m. and 7:00 p.m", really, it's not possible, is it? I guess, if you threaded the needle perfectly every second of the way. But, you know, we're talking, what, 59 HDD bores, which is unprecedented anywhere in this country, I would think that there's going to be times when they're going to work past 7:00 p.m., is that correct?

A (Bascom) I would say it's possible.
A (Zysk) They have noted that every single HDD location will have -- the contractor will analyze it and will come up with a specific work plan for that location. And I'm sure that they will determine at that point whether they need to go longer than a 12 -hour shift.

Yes. I get it. But I'm just telling you what we've been told.

A (Zysk) Understood.
Q Okay. Mr. Taylor, --
MR. LAKES: Can you please put on the ELMO, Bruce, number 65?
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BY MR. LAKES:
Q This is a copy from Applicants' Construction panel testimony, Day 6, May 17th [May 1st?], Page 18, question from Mr. Pappas to Nathan Scott. And, so, this regards testimony with regard to "staking a construction site". And we'll start with, at the top, "Okay. Then, where it says "Stake limits of disturbance", is that to determine where it is going" -- I'm sorry, "where it is you're going to essentially dig and have equipment?" Let me say that again, $I$ was disjunct on that. "Then, where it says "Stake limits of disturbance", is that to determine where it is you're going to essentially dig and have equipment?" And Mr. Scott, for the Construction panel, says "Essentially, yes."
"Okay. Then, you're going to need to -well, let me back up for a minute. When you stake out limits of disturbance, presumably the goal is to stay within the right-of-way, correct?" "Scott: Correct."
"It's not to go on any private property?"
"Scott: Correct."
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"So, when you stake --", and then Scott interrupts: "And that right-of-way line will be staked as well."

So, I want to talk about that a little bit. So, it appears the intention, on any construction site, is to stake the ground delineating the line between private property and the ROW. Do you agree?

A (Taylor) That's typically done, yes.
Q Would you agree that there could be a problem performing construction activity on a state road right-of-way, such as 116 , where many portions are three rods wide, which is around 49 feet, and smaller portions are two rods wide, which is 32 feet, and, even on a four road -- four rod road, which is 66, where boundaries on both sides are undetermined?

A (Taylor) That's correct. It would definitely be more of a challenge if the road right-of-way is narrower than currently shown on the Applicant's plans. So, Mr. Taylor, would you, if you were in charge of a project, allow the staking of a construction site if the Row boundaries were
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not firmly established?
A (Taylor) I would say the answer is "no", mainly because we wouldn't get to the point of construction stake-out relative to property rights, unless someone on our team or an agency had determined that that is, in fact, the limits of the property right.

MR. LAKES: Okay. Let's put the next thing on, Bruce, number 66 .

BY MR. LAKES:
Q This is a copy from the Applicants'
Construction panel testimony, Day 6, on
May 1st. The question again is from Mr. Pappas to Nathan Scott.

And we'll start with "Yes. You anticipate in some places there's going to be some blasting, don't you?" Scott says: "I'm not sure of any specific locations where it's required for the underground route. But it's a potential, yes."
"Well, your Application indicates you anticipate some blasting, does it not?" The Application reserves -- and this is the answer: "The Application reserves" -- and this is from
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Mr. Johnson, I'm sorry: "The Application reserves the right, if you will. Based on geotechnical results that we got back, we found that there was little to no rock in the area that we plan to install. So, it would be on a case-by-case or emergency basis. But it has not been pre-identified in specific locations."

I want to talk a little bit about that as well. This is where it gets a little tricky with me trying to put some things on the screen.

So, with the underground alignment in a state of flux, in order to meet DOT regulations and/or to avoid issues along the route, and/or to get exceptions from DOT where there are no other alternatives, the statement "we found little or no rock in the area we plan to install", may this not be accurate now, because the plans are changing as we speak?

A (Taylor) Yes and no. I would assume that his statement is based on the exact boring locations from their geotechnical work. So, if a boring is done, say, every thousand feet or two thousand feet, by way of example, they
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wouldn't know what's in between.
Q Right.
A (Taylor) The other side of that is, if they have changed the alignment, and they did have a boring in an area on the exact previous alignment, then they wouldn't generally know if rock, let's say, is on the other side of the road.

Q So, certainly, this statement about there "being little or no rock", I also extended that in terms of the trench information. So, the geotechnical boring, you know, as far as the trench goes, is, well, number one, it appears to be nonexistent, because they picked out areas that they're talking about doing the HDD. And, actually, to be able to determine what's going to be in all these trenches is kind of like finding a needle in a haystack. I mean, is that --

A (Taylor) If you're referring to rock, the answer to that would be yes.

Boulders, things like that?
(Taylor) Yes.
MR. LAKES: I need to bring up the
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Apple TV at this time. All right. Has anything come up yet? Oh, there it is. I didn't even though it was there. All right.

BY MR. LAKES:
On the screen is Exhibit Number APOBP 70. What you see here is a very large boulder that was recently excavated next to Route 116 at the mouth of the new Gibson Road. The same area that Kris Pastoriza was talking about yesterday, in terms of putting a vault on the other side of the road. And this is kind of like a -- it's like an iceberg, because there's a huge portion of it below the ground as well.

And the next picture I'm going to show you -- this works pretty good. This is the boulder that was there that is broken up.

And the only point $I$ want to make, you know, to the panel and to the Commission here, is that $I$ live about a quarter of a mile away from that boulder. It took a week for them to break that boulder apart.

CHAIRMAN HONIGBERG: Mr. Lakes, this is your time to ask questions of the panel. MR. LAKES: Yes. I'll just make --
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yes. Well, okay.
BY MR. LAKES:
Q So, would it surprise you gentlemen that this boulder took an excessive amount of time -well, to me it was excessive, because I had to listen to it every day for a better portion of five days or so with a giant backhoe with a hammer on it smashing the thing, every day, for like eight hours a day.

So, would it surprise you gentlemen that they may find similar things, similar boulders, while they're doing trenching along the road, off the road, along the 52 -mile route?
(Taylor) No. I wouldn't be surprised by that. So, when you hit a thing like this, slows down production, $I$ would think, and efficiency? (Taylor) It does. Extends the operation, costs more money? (Taylor) That's correct. Etcetera, etcetera.

MR. LAKES: So, if you could, Bruce, put up number 72. So, this is a slight digression.

CHAIRMAN HONIGBERG: Do you need the
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ELMO back?
MR. AHERN: We need the ELMO back.
MR. LAKES: Oh, I'm sorry. I don't
need the ELMO anymore. Thank you.
CHAIRMAN HONIGBERG: No. You need the ELMO.

MR. AHERN: You need the ELMO, not --
MR. LAKES: I don't need the Apple
TV. Yes, I'm all set. I need the ELMO, I'm sorry. This juggling act is tough.

BY MR. LAKES:
Q So, this goes to -- this exhibit is an exchange, again, in May with Mr. Bowes, who was on the Construction panel for Eversource. And I'm asking the question actually: "If tree removal is necessary on the trench side of the road, will landowners be brought into the process before removal?" Mr. Bowes answers: "Yes. Again, we have not identified any tree removals that are necessary."

So, in May, the Northern Pass didn't -was saying that they didn't see any trees that had to be removed. Do you agree with that?

A (Taylor) I don't agree with that statement.
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Q So, when Mr. Johnson says, with almost the same certainty, that "we found that there was little to no rock in the areas we plan to install the trench", now, this is a 62-mile [52-mile?] underground trenching/digging/splice vault operation in the Granite State. Do you think this is a reasonable assessment, based on drilling a few geotechnical bore holes?

MR. NEEDLEMAN: Objection. Where did Mr. Johnson say "there was little to no rock"?

MR. LAKES: I just showed you the -his testimony on -- put up the earlier one, Bruce.

CHAIRMAN HONIGBERG: I believe you had Mr. Scott's testimony up earlier.

MR. LAKES: Yes. It was Scott and Johnson. Do we have it up there? I can't tell.

MR. AHERN: Yes, it's right there.
MR. LAKES: Yes. It's right there.
And what's the number on that one, Bruce?
MR. AHERN: It's 80 -- or, 66.
MR. LAKES: 66. Where it says the
answer -- "Well, your application indicates you
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anticipate some blasting?" was the question. Mr. Johnson says: "The Application reserves the right, if you will. Based on the geotechnical results that we got back, we found that there was little to no rock in the area that we plan to install."

MR. NEEDLEMAN: So, based on the geotechnical results?

MR. LAKES: Right.
MR. NEEDLEMAN: Okay.
MR. LAKES: I'm going to move on. CHAIRMAN HONIGBERG: Wait. You have a pending question. I assume you want them to answer the pending question?

MR. LAKES: Thank you. I think the question was answered earlier, in terms of the "needle in the haystack", and the fact that there will be boulders and other obstructions found along the way, which $I$ believe Mr. Taylor answered in the affirmative.

WITNESS TAYLOR: Correct. I wouldn't be surprised if you found rock or boulders along the route.

MR. LAKES: Right. Thank you.
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BY MR. LAKES:
Q Okay. Mr. Taylor, in the questioning of Nathan Scott by Mr. Pappas during the hearings, and I'm not putting up any exhibits for this, during the hearings there was a line of discussion regarding splice vaults and the size of the hole. And $I$ just want to get confirmation on that.

At the time, Mr. Scott had said that the hole for the splice box is going to be "12 feet wide by 34 feet long, 10 to 12 feet deep". And I wish I had listened more closely yesterday, but I heard differently yesterday. It sounded like the hole was going to be bigger. Can you answer that?

A (Taylor) I seem to recall his testimony indicating an additional two feet on either side --

Q Okay.
A (Taylor) -- of the design size of the splice pit, which would put that component around 12 feet, and then the linear component around 38 feet.

Q Okay. I think what it is is he originally said
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"12 feet". So, if he's adding two feet to this, we're talking "14 feet". But I guess we're just playing with semantics with numbers, because, whichever way it goes, it still works with the point I need to make.

The vast majority of the 159 vaults -CHAIRMAN HONIGBERG: Slow down. Slow down.
MR. LAKES: I'm sorry.

BY MR. LAKES:
Q The vast majority of the 159 vaults, $I$ believe around 130 will be off the pavement. So, Route 16 has a number of areas where it's three rods wide, roughly 49 feet. So, if we take it from the centerline over, it's about twenty four and a half feet. Do you agree with that?

A (Taylor) I do.
Q So, the pavement itself is about 12 feet, 12 and a half feet wide, from the center, leaving roughly another 12 and a half feet or 12 feet -- roughly 12 feet, let's say, for a vault to be placed. How is it possible to site a vault completely off the road in a two or three rod road outside the pavement? That's my
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question.
A (Taylor) Well, it would seem, mathematically, for a two rod wide right-of-way, it doesn't seem like it would work at all. And, for a three rod road, it would really come down to how the road is placed within the right-of-way. If it's centered, as you just indicated, --

Q Yes.
A (Taylor) -- highly unlikely. If it's not centered, then it's possible.

Q But the flip-side is correct as well, that, if it's centered on the other side of the road, that you'll even have less space. And, yes, sure, a lot of this is based on "where is the centerline of that road?" That's really where some of these matters come into play. Because you could have the larger boundary on the opposite side of the road, that's -- is that correct?

A (Taylor) That is correct.
Q And not knowing the exact ROW boundary, as we just discussed, that would be an additional barrier?

A (Taylor) Correct.
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Q As had been noted yesterday, the panel is quite aware that NPT is in consultation with DOT to meet the Utility Accommodation Manual to the best extent possible, or receive waivers where it cannot.

When you, I'm just asking the group at this point, were analyzing the route and construction detail, did you believe that the underground alignment, as stated by the Applicant, was within legally established rights-of-way?

A (Taylor) I would say, yes, because we had no reason to believe, at the time of our review, that the right-of-way shown was not accurate. So, if you didn't know, would you have probably -- would you have made that an issue of discussion in your -- in the presentations that you did, if you knew that there weren't surveys that meet proper standards to the DOT?

A (Zysk) Yes.
Q Looking at your resumés, it appears that all of you have extensive experience with large construction projects. Have any of you been involved with projects that were so heavily
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reengineered and required multiple waivers two years into the approval process?

A (Zysk) I was involved in that small project in Boston about fifteen years ago, that was constantly being redesigned due to political decisions throughout the process. We also had to make some reasonably major design changes due to changes in construction, things that happened during construction that weren't anticipated, etcetera.

Q Yes. So, if you have to go back fifteen years, I'm assuming it doesn't happen too often, on this scale and magnitude? Sure, things change, but your opinion, your thoughts?

A (Zysk) Maybe not to this magnitude, but even small projects experience changes.

Q Uh-huh.
A (Zysk) We're in the process of finishing a project right now. We had to stop, once we started, and make some changes.

Q Sure. Let me ask you, Mr. Taylor, would you have advised a client to move forward with an application, if you knew large portions, in this case, the underground portion, did not
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meet and directly violated the DOT Utility Accommodation Manual?
(Taylor) We would not advise a client to violate any regulation. That being said, as a part of the overall strategy and compilation of a project, if we deemed it appropriate, relative to the regulations, to ask for a waiver or an exemption, we would certainly do that.

So, at what point in the process would you do that?

A (Taylor) Typically, for what $I$ would call the "entitlement", which is what $I$ view this stage of the Project. That gets flushed out, be it a waiver, a variance, exception, whatever term you put to it.

Q Would you have advised a client to move forward with an application with ROW boundaries that were in dispute over the course of 62 [52?] miles?

A (Taylor) Hard to say what $I$ would have advised to a client on this particular project. But I think, as $I$ had indicated yesterday, it's not uncommon to move the early stages of a project
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along when some data is still being figured out. And I think yesterday I had said around the 30 percent stage of a project, certainly for a linear project, we typically know a significant amount about the property rights. And, so, if, in your scenario, we were below 30 percent or at 30 percent, engaging the entitlement process would not be uncommon, but we would do so with open eyes, and that would just be disclosed throughout the course of the entitlement process.

So, can $I$ kind of bring that into perspective, where you're saying that many of these things that are still in flux today and not understood, really should have been part of the initial Application?

A (Taylor) If the Applicant knew that the right-of-way wasn't correct, then, sure, I would expect some level of disclosure with that.

Q Yesterday, in questioning from Ms. Manzelli, you mentioned a case where the parties got together to find agreement on a boundary dispute, I think, was that you, Mr. Taylor?
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I'm not sure. Apparently, there was one parcel of land, and the landowner was brought into the dispute, and they settled it. It was that kind of -- did I summarize that okay?

A (Taylor) Generally speaking. I recall it having to do with prescriptive rights, and whether abutters to a property, where prescriptive rights are in question, --

Q Yes.
A (Taylor) -- have a say in the matter.
Q And what caught my mind or my eye is that, you know, you talked about one landowner, and we're talking about hundreds having the same issues up and down the route. So, would you think that this is probably a thousand times, 10,000 times more problematical than the situation you may have talked about yesterday?

A (Taylor) Well, I don't know if it's 10,000 times more, but --

Q Well, I'm a bad mathematician.
A (Taylor) Understood. To the extent that, relative to the conversation yesterday, prescriptive rights are in play, if that's the case along the entire route, then, absolutely,
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it would be a greater magnitude than my example yesterday.

Q Do you think that, two years after the Application acceptance, with these issues still unresolved for landowners is the best way to do business?

A (Taylor) I don't characterize this process as a "good" or "bad" way to do business. If it's being fully flushed out at this point, which it appears that's the case, then this is when it will get resolved. Which appears to be towards the end of this process and around 60 percent design according to the Applicant.

Q Thank you.
MR. LAKES: I want to move on to Exhibit Number -- and this is you, Bruce -- 67 . Sorry for my bumbling. I'll try to get this moving.

BY MR. LAKES:
Q So, the question was, to you, this is your testimony, Mr. Taylor, "Were there aspects of the underground construction that you were not able to assess?" And you said "Yes. The Applicants' submission did not include
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sufficient information on the following items for us to assess their impact associated with construction of the underground segment: The location and size of additional laydown areas and staging areas that would be required; the location for the placement of excavation spoils; the location of concrete batch plants; the need for temporary easements; utility designating and test pit data, particularly for the more urban and commercial areas; geotechnical boring along the entire underground route; the protection of cultural resources identified in Easton; detailed traffic control plans with construction sequencing; and detailed erosion and sedimentation control plans and sequencing." So, these you did not have a chance to review, because apparently they weren't there, is that correct?

A (Taylor) Yes. That's correct.
Q In your professional expertise, is this level of detail usually included earlier rather than later in the process?

A (Taylor) Some of this is, I would say, at 60
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percent or slightly thereafter, and some of it is in the 30 to 60 percent range.

Q Okay. Moving along. And I'll try to get through this even quicker, because some of it was touched upon yesterday.

MR. LAKES: Bruce, and this is for Mr. Taylor, please put up the APOBP 69. Do I have that right? Yeah. Almost to the end here.

BY MR. LAKES:
Q As you stated yesterday, Mr. Taylor, you estimated the number of cement trucks and dump trucks needed for the underground portion at "19,653", is that correct?

A (Taylor) That's correct.
Q Now, and did you include in that that $\$ 7,500$-7,500 loads up in Coos County of that -- that big ledge they're going to rip out of there.

A (Taylor) No. That wasn't a part of this computational exercise.

Q Okay. So, does that number include mud extraction trucks, deliveries of water for drilling, logging trucks, chipper trucks?

A (Taylor) No, it does not.
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Q Does this include cranes and flatbeds carrying backhoes, drilling rigs, bobcats, generators, dumpsters?

A (Taylor) No.
Q Does this include steel plate trucks, pipe trucks, splice vault trucks, cable reel trucks, paving trucks, paving equipment, and even pickup trucks?

A (Taylor) No.
Q And, as was mentioned yesterday, the trench is going to be deeper. So, one would figure that it's deep enough, between six and seven feet, so it's going to be half again as much in terms of truckloads. So, this would probably add another 10,000 trucks to that number.

Did you do any width calculations on that, on this Project, the width of the trench, I mean?

A (Taylor) What do you mean by "width calculations"?

Q Well, I guess what I'm saying is, initially, from my understanding, the width of the trench was narrower than the 5 foot wide that is now proposed. Because, as you go deeper, the
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trench has to get wider. I think that's pretty much a standard sort of procedure with regard to that.

So, with the trench being wider than it was initially, I'm thinking that's going to be even more truckloads of cement and dirt?
(Taylor) That's a reasonable expectation.
So, when you put all of this together, I'm estimating that we're talking probably in the neighborhood of 40 to 45,000 trucks traversing our roads over the course of two years. And, from what $I$ just stated, is that possible? (Taylor) It's possible.

Will this activity add a lot of noise, dust, dirt, air pollution, traffic congestion, extend the time of completion, directly affect tourists and businesses?

MR. NEEDLEMAN: Objection. All of that was included and should have been included in the testimony.

CHAIRMAN HONIGBERG: I think, having
gone this far, I'm going to overrule the
objection. Let him answer.
BY THE WITNESS:
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A (Taylor) The short answer is "yes". And I would refer you to our report and our direct written testimony, which $I$ think elaborates on each of those.

BY MR. LAKES:
Q Yes. With the DOT requiring more trenching and vaults off of the pavement, will there be increased visual impacts to the scenic nature of these roads?

MR. NEEDLEMAN: Objection. Beyond the scope of their testimony.

CHAIRMAN HONIGBERG: Yes. These aren't the visual experts.

MR. LAKES: I know. But $I$ know that Mr. Taylor, in his testimony, and I don't have it with me, but $I$ remember reading it, and he did mention "scenic" issues. Is that correct?

WITNESS TAYLOR: In our report, in a few areas, we mentioned where trenching went outside of the roadbed, where it would be either in a hillside or there was some vegetation. We note that that vegetation would be cleared. There would be additional grading. And that would create a visual impact due to
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the trenching.
BY MR. LAKES:
Q Okay. Are you aware -- well, maybe I'll skip this question. Let's -- and we'll move on to the last one.

And this is for Mr. Zysk. In your
testimony, you discussed "flowable thermal
backfill", also known as "FTB", as a "viable and perhaps enhanced material that may be more thermally stable for dissipation of heat around the cable, and perhaps more stable with regard to heaving in the winter months". Is this correct, as a general summary?

A (Zysk) It doesn't sound exactly like what I
said, but $I$ did discuss "heaving" and some of the physical properties, yes.

Can $I$ assume, from what you had written, is
that you weren't opposed to it or you didn't find anything that made you --

A (Zysk) Correct.
Q Okay. So, would you classify flowable thermal backfill as a porous material or more of a solid block; one acting as a French drain, the other blocking or repelling water?
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A (Zysk) All concrete-based materials are somewhat porous. It's not like gravel, where the water will just flow through it. The water will infiltrate it, but it will tend to move around it more than it will move through it. MR. LAKES: Okay. Bruce, can you put up Number 63?

BY MR. LAKES:

Q And this is a State of New Hampshire Department of Transportation Bureau of Highway Design Conference Report. And I want to go to the second page of that, which is Number 64. And, if you go down where $I$ put little marks there, this was during a discussion between Eversource and the DOT. And it says here that "FTB is [a] water permeable, similar to DOT gravels, does not create water dams, and behaves as a "French drain" in poor soils."

So, my first question, you know, and I did go through some of the geotechnical material, which is overwhelming, $I$ see a lot of this thing about "poor soils". So, here we are introducing something that is not a poor soil, it's a manmade product.
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So, Mr. Zysk, what does a "French drain" mean to you, in terms of $I$ guess the way laymen speak of "French drain"?

A (Zysk) "French drain" is typically a small diameter pipe used to remove water from around a foundation.

Q But, if you're describing this as a "French drain", is that kind of -- are they likening it to a similar fashion?
(Zysk) I would say yes.
So, yesterday Ms. Pastoriza noted that
hydrocarbons were detected at the corner of Route 116 and Route 112. Is my situation -- it is my understanding that the same situation exists at the corner of Route 18 and Route 116. Could a trench, with FTB, acting as a French drain, spread contaminants along the road and increase the area of contamination?

A (Zysk) If there are known hydrocarbons in those areas, I would expect that, if they were going to excavate in those areas, then the soil that has the hydrocarbons in it would either have to be treated or removed and disposed according to all regulations, and then clean material be put
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[WITNESS PANEL: Zysk|Bascom|Taylor]
back in the trench.
So, are we just talking the trench here or are we talking about a total area remediation so that materials cannot flow into that French drain?

A (Zysk) That would be up to your DES. I can't answer that question.

MR. LAKES: Okay. I have no further questions.

CHAIRMAN HONIGBERG: I don't see Lara Saffo here. Is she here?
[No indication given.]
CHAIRMAN HONIGBERG: All right.
Mr. Van Houten.
MR. VAN HOUTEN: Good morning, everybody.
(Multiple parties indicating
"good morning", including the witnesses and Subcommittee members.)

MR. VAN HOUTEN: I'm going to try and get two images up on the screen here. My questions -- good morning, panel. My questions are for any of you. You can decide who will
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[WITNESS PANEL: Zysk|Bascom|Taylor]
answer the question.
BY MR. VAN HOUTEN:
Q What we have here on the screen is Map Number 76 from the Project, showing where the overhead line approaches Route 302 and the transition station, where it goes underground.

Did you visit the location of the proposed transition station?

A (Taylor) Yes. I've been there several times.
Q Okay. Did you notice anything unusual about the topography there?

A (Taylor) I noticed that it drops off rather quickly from not too far off of the road.

Q Right. So, if you were going to build a road there, would you probably fill most of that in?

A (Taylor) Yes.
Okay. Is it your understanding that this would be the access point for construction of the overhead north of Route 302?

A (Taylor) It can be.
A (Zysk) This is certainly one location, yes.
Q Do you know of others?
A (Zysk) I can see another road toward the left side of the map.
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[WITNESS PANEL: Zysk|Bascom|Taylor]

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Q That's a private road.
A (Zysk) Okay. That is not indicated as such. But, okay.

Q Okay. So, I was told by Project representatives that, and $I$ think it's in the Application, that access points to the overhead construction will be from public roads?

A (Zysk) Yes. Correct.
Q Okay. Do you know the extent of the area served by this access point?

A (Taylor) I do not.
And added to that is, and how many towers are proposed to be built using this as an access point?

I'll go to my other image here. This is just a satellite from fairly high up showing the area in question. Where the cursor is, you can see the pond and where the existing corridor intersects Route 302. From there, it proceeds to roughly 116, you can see it. And Route 116 there is running adjacent to the Ammonoosuc River. Between Route 302 and where the cursor now is there is no public road. So, that is about four miles. There's something
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like 30 towers proposed to be built there.
And, from what $I$ understand from the Applicant, they plan to build all of that using this one point here on 302 as the access.

Would you do it that way?
MR. NEEDLEMAN: Objection, Mr. Chair. This is just generic testimony related to the overhead portion. There's nothing new here, nothing has changed.

MR. VAN HOUTEN: Okay.
CHAIRMAN HONIGBERG: Mr. Van Houten.
MR. VAN HOUTEN: Fine.
BY MR. VAN HOUTEN:
Q Is there a road there now?
A (Taylor) Are you referring to 302?
Q No. The corridor?
A (Taylor) $I$ wouldn't characterize there being a road there. But, within their corridor, --

Q Right.
A (Taylor) -- I would assume that they can and do travel it for maintenance and operations currently.

Q The only thing that they have done there, in my several years, twelve years, in that location
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[WITNESS PANEL: Zysk|Bascom|Taylor]
is every few years John C. Brown --
MR. NEEDLEMAN: Objection.

CHAIRMAN HONIGBERG: Mr. Van Houten, you're testifying right now. What is it you want to know from them?

MR. VAN HOUTEN: Oh. Okay. I want them to describe the road that would need to be built to accommodate the equipment and heavy trucks needed for this construction.

CHAIRMAN HONIGBERG: That's an awful
lot like what they testified about in their prefiled testimony about this construction job.

MR. VAN HOUTEN: Right. Well, --
CHAIRMAN HONIGBERG: Is there
something specific about it?
MR. VAN HOUTEN: Yes. This is a
little different. Because you have a proposal
to build something like 30 towers along a four-mile stretch accessed with one road. That indicates to me that you're going to need a road that's big enough to have all of this equipment passing each other. If you were building one or two towers, you would just need a road wide enough for a crane to get in there,
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do its thing, and come back.
If you're building that many towers,
in a fairly short order of time, you're going to need to accommodate all of this traffic, and I believe that indicates a much bigger road. CHAIRMAN HONIGBERG: Yes. I understand that. And I'm not sure that -- I actually think that they, if they wanted to offer an opinion on that, it would have been part of their prefiled testimony.

But, if you want to ask a question about whether it can be done the way it's proposed, given the topography and the existing roads, since $I$ think you've already said that they do go onto the line, the Company does go onto the line to maintain it, maybe you should ask them that and we'll see what happens.

Let me try it. Can it be built, as it's proposed, using the existing access points that are currently in place?

WITNESS TAYLOR: I see no reason why it couldn't.

CHAIRMAN HONIGBERG: So, Mr. Van
Houten, in light of that, do you want to ask
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them anything further?
MR. VAN HOUTEN: Not about that.
BY MR. VAN HOUTEN:
Q How would such a road be constructed through wetlands?

MR. NEEDLEMAN: Same objection. CHAIRMAN HONIGBERG: Yes. Such a what road? I'm not even sure I understand the question.

MR. VAN HOUTEN: Well, the road we were just talking about, a big road to allow heavy equipment to go through a wetland.

CHAIRMAN HONIGBERG: That's too generic.

MR. VAN HOUTEN: Okay.
CHAIRMAN HONIGBERG: That's too generic.

MR. VAN HOUTEN: That's fine. That's fine. No problem.

CHAIRMAN HONIGBERG: Don't give up so
fast. Are you asking about the area that's on screen currently?

MR. VAN HOUTEN: Yes. Just that.
CHAIRMAN HONIGBERG: All right. And
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they have just testified that the Project could be built using the existing roads.

MR. VAN HOUTEN: There are no existing roads.

CHAIRMAN HONIGBERG: Existing access points. Because they're currently able to get on the line now, somehow.

MR. VAN HOUTEN: There is an access point. They're driving a skidder on it. You can't drive a 4-wheel drive pickup truck through it. So, you need to build a road where there is no road now. That was just my point. There's no road there now. They're going to need to build a road.

CHAIRMAN HONIGBERG: That's your
opinion. They have just said that the Project can be built using the existing access in this area. So, if you have questions for them about that, --

MR. VAN HOUTEN: Well, I just asked them if they have visited that, and they said "no". I have visited it. So, they're saying it can be built with existing roads, I'm saying it can't. And, so, we'll leave it there.
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We're just going to leave it there.
CHAIRMAN HONIGBERG: Yes. We're not going to -- you're not going to argue with them.

MR. VAN HOUTEN: No.
CHAIRMAN HONIGBERG: So, move on.
BY MR. VAN HOUTEN:
Q Well, we'll see where we get with this one. Did you know that the Applicant claims that the roads would be removed after construction, and aside from the immediate area near the towers, the land would be restored to its prior state?

A (Zysk) That's what they have stated, yes.
Q Okay. Can you give me a rough estimate of how much it costs to build a road like this per mile? Very rough, I mean?

A (Zysk) No.
Q Okay. Do you think it would cost about the same amount to remove it and restore?

A (Zysk) I guess it depends on what goes into restoring it. To remove gravel that's been placed, probably not a whole lot of money, relative to the construction. What goes into the final restoration, whether there are
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plantings, whether there's --

Q Right.
A (Zysk) - - whatever, that could add up substantially, and it depends what's required for them to do.

So, if it costs $\$ 1,000$ per mile to build one of these roads, it would be reasonable to say -or, would you agree that it might cost $\$ 800$ a mile to remove and restore?

A (Zysk) It could.
Q It could be 500?
A (Zysk) It could.
Q Okay. Were would the used road material go?
A (Zysk) That's up to them. Whatever their contractors choose to do with it.

Okay. Do you agree that it's possible that a new road of this magnitude, in a location where there is now none, could be an attractive nuisance for joyriders and bring about a change of use of the land?

A (Zysk) I believe that's been covered in multiple testimonies and descriptions.

Okay. I haven't been here, so. Is it
customary to seek a landowner's permission
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before building a road on their land?

A (Zysk) If you're building on somebody's property, yes.

Q Okay. Is it my impression that staging areas will not be sited on the existing corridor, is this correct?

A (Zysk) I'm sorry, say again?
Q It is my impression that staging areas will not be sited on the existing corridor, is this correct?
(Zysk) They have indicated what their parameters for staging area is. Previously --

Q Right.
A (Zysk) -- used parcels of acceptable size and whatnot.

In the area, okay. Can you tell me where the staging areas that would serve construction of this overhead portion would be?

A (Taylor) We can't.
Q You can't, okay.
A (Taylor) No.
Q And the same goes for the underground portion,
there will be a separate -- another staging area for that, and you don't know where those
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would be either, do you?
A (Taylor) The Applicant hasn't indicated staging or storage areas beyond what's currently in their Application. And $I$ think our testimony and report has indicated, without that information from the Applicant, we wouldn't be able to speak to it.

Right. Okay. Thanks. So, you sort of -- you quickly noticed on the map that there was possibly another alternate access. So, is it possible that construction engineers would seek alternate access points across private property between 302 and the Ammonoosuc River?

A (Zysk) Certainly possible.
Q If alternate access roads were to be built to enable the Project, would the SEC have any jurisdiction over this?

A (Taylor) I think that's up to the SEC and what their final order may be.

Q Okay. But you don't have any experience that leads you to offer an opinion on that? (No verbal response). Okay. Okay. So, new roads could bring about a change of use if alternate access routes were
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established for the purposes of construction from the Brook Road, the Blaney Road --
[Court reporter interruption.]
MR. VAN HOUTEN: Sorry.
BY MR. VAN HOUTEN:
Q If alternative access routes were established for the purposes of construction from the Brook Road, Blaney Road, Cherry Valley Road, or Prospect Streets, those are all adjacent to the corridor there, within a half mile in general. What impacts would you predict on the residents of these areas or on the roads?

A (Taylor) Impacts from what?
Q Well, let's say that access road is build from Cherry Valley, say it's two miles from Route 302, they find a great access point where they can put a staging area, and get in, back and forth. What impact would the construction activity have on residents in the area?

A (Taylor) I would say it would, based on those assumptions, it would be similar to what we have outlined in our report and testimony; noise, dust, construction traffic, etcetera.

Q Okay. All right. Any light?
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A (Taylor) It's possible.
Q Do you know if any of the proposed towers would be illuminated?

A (Taylor) I'm not aware of any illuminated towers.

Not required, okay. All references I have seen to tower height have been qualified as
"proposed". Is there any guarantee that further engineering won't result in increased height of the towers that are proposed there now?

A (Taylor) I don't know.
Q Okay. So, --
A (Zysk) Based on the testimony I read, I believe they discussed potential variances of up to maybe five feet up or down from what's proposed. But $I$ got the sense that the tower heights that are set are pretty much agreed upon.

Q Okay. So, I've pointed out that we have a four-mile corridor here that might be accessed from that one point. Can you give me a rough estimate of how long construction between Route 302 and the Ammonoosuc River would take?
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[WITNESS PANEL: Zysk|Bascom|Taylor]

A (Taylor) I don't know that we can go give you that answer. That's really going to be dependent on their contractor, their staging, and how they choose to move along the line.

Okay. Did you review the plans for underground construction on Route 302 , between Miller Pond and I-93?

A (Taylor) Yes. I've viewed the underground plans.

All right. Can you give me an idea of road and lane closure duration?

A (Taylor) For -- is there a specific area or a specific map that you're referring to?

Between -- it's right there, between Route 302 and Route 18 , where it turns. Just that little stretch there, between the transition station and Route 18 .

A (Taylor) I don't recall the plan specifically. But, generally speaking, they have maintenance and traffic details that allow for one lane of closure, which could happen in this case. I would assume that it would, yes.

Okay. So, probably for one construction season?
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A (Taylor) Sure. That sounds reasonable.
Q Okay.
A (Taylor) If not less.
Q All right.
A (Bascom) And I believe the Applicant's information most recently indicated they may proceed 100 feet a day. So, based upon the length of that segment, you could determine how long that section would take to construct.

Q Okay. Great. Thank you. Do you know that this is part of a major commercial route between Portland, Maine, and Montreal, average traffic of 6,000 vehicles a day?

A (Zysk) In general, yes.
Q Do you have any idea of what impact a lane closure might have on the school bus schedule serving the Profile High School?

A (Zysk) Immediately, no. They do need to develop specific traffic plans for each region or each location. I assume that they will take school bus times into account.

Right. Is it possible that, during those times, they might be able to open it back up to two lanes?
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A (Zysk) That would be dependent on the work that's going on at that time.

Q How would partial closure of Route 302 affect access to the overhead construction zone that we've just pointed out here, from 302 to the Ammonoosuc River, that whole stretch in there? (Zysk) Expand upon what you mean by "affected". Well, there are basically three ways to get to that spot. One is coming toward the east, on Route 302 , which may be closed some time, and one is going west on 302 from town, and the other one is coming up the Brook Road from the Littleton area, which is the one that goes here?
(Bascom) The amount of time would depend on the construction sequencing, which may or may not be happening at the same, you know, scheduled work season. So, for example, the underground segment might be constructed during one work season, and the overhead line segment might be done during another season potentially. Okay. Right. (Bascom) So, the sequencing of the work would affect the amount of time and traffic and road
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closures and so forth.
Q It sure would. But it would -- it seems like this, if that was one of the parameters, that this might extend the construction time of the Project.

If $I$ read the Application correctly, this is also the proposed location of Transition Station Number 5. Would staging and laydown areas also be required for the construction of this transition station?

A (Zysk) They will clear an area for the transition station. I assume that they will work within that cleared area.

Q Okay.
A (Zysk) I don't believe they have identified additional laydown area above and beyond what they've indicated as the footprint of the transition station.

Q Thanks. And do you have any idea how long it should take to build this transition station? (Zysk) I do not.

And $I$ assume that there would also be traffic going back and forth to this location to enable construction of the station?
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A (Zysk) Yes.
So, that traffic also is put on top of the two other traffic problems we already are looking at. Am I right?

A (Zysk) Yes.
Q Do you know that the lot that abuts the proposed transition station is the site of $a$ proposed Hilton Hotel?
(Zysk) I was not aware of that, no.
Do you know that the developer of this hotel was horrified when he heard of the proposed Northern Pass going right next to his lot, and that he is trying to work out an alternative to having the transition station being located right there? Did you know that there has been public discussion of relocating that transition station?

MR. NEEDLEMAN: Objection. Misstates the record.

CHAIRMAN HONIGBERG: You want to object to the first question or the second question? Or both?

MR. NEEDLEMAN: Well, the first, to start.
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CHAIRMAN HONIGBERG: Yes. The first is a real problem.

MR. VAN HOUTEN: The first question being?

CHAIRMAN HONIGBERG: Something about what somebody said. The second one, the last question you asked was "are you aware of discussion about that?"

MR. VAN HOUTEN: Yes.
CHAIRMAN HONIGBERG: That question you can ask. The second question you asked in your last statement.

MR. VAN HOUTEN: Okay. All right.
BY MR. VAN HOUTEN:

Q Are you aware that there is discussion of relocating the Transition Station Number 5?

A (Zysk) We've heard nothing regarding that.
Q Is it reasonable to expect that the site Evaluation Committee and the public would have an opportunity for review of any such plans?

A (Zysk) I would expect they would, yes. You're talking plans to relocate the transition --

Q Yes.
A (Zysk) Yes.
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Q Do you mean to say that any such plans should be submitted before any decision is made by the Site Evaluation Committee about this?

A (Bascom) I think the procedures of the site Evaluation Committee would apply. And I would say we're probably not privy to the details of those rules and requirements.

Okay. Thank you. Is it fair to say that the combination of four large construction projects, the perfect storm, might put an unreasonable burden on the New Hampshire citizens and visitors who live and use -- that live in and use this area?

A (Zysk) If everything were to occur all at the same time, that's quite possible.

MR. VAN HOUTEN: Thank you. I have no further questions.

CHAIRMAN HONIGBERG: All right.
We're going to take a ten-minute break. Off the record.
(Recess taken at 10:22 a.m. and hearing resumed at 10:36 a.m.)

CHAIRMAN HONIGBERG: All right. Ms.
Menard, are you ready to go?
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MS. MENARD: Yes. Thank you. Good morning.

WITNESS BASCOM: Good morning.
MS. MENARD: Good morning, gentlemen. My name is Jeanne Menard, and I'm from the Deerfield Abutters. And I have some construction questions for you. And I have one follow-up question about noise from another member of our group, Jo Anne Bradbury. And then Bob has some construction sequencing questions.

BY MS. MENARD:
Q Even though the Applicant indicates that the Project can be designed in a 100-foot right-of-way, it's unclear how it will be constructed in a 100-foot right-of-way that has a 15-foot tree buffer. So, I'd like to introduce exhibit labeled Deerfield Abutter 152, has information regarding right-of-way width needed for Northern Pass Transmission. And this is a data request that came from the PUC Staff in --

MS. MENARD: What is your question? Oh, thank you.
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BY MS. MENARD:
So, this is a data request that came from the PUC Staff in Docket Number DE 15-464, and that has to do with the NPT lease. And it was responded to by Eversource engineer Robert Andrew.

Would you agree that the question asked what is the minimum right-of-way width that would be needed to accommodate a 115 kV line, that's the G146 line, and Northern Pass Transmission? Would you agree that that's the question, the nature of this inquiry?

A (Zysk) That's what it appears to be, yes.
Q And it's because the answer states "the necessary right-of-way widths are 150 feet or 200 feet", I'd like to ask you some clarifying questions. And I'll represent to you that, in the western part of Deerfield, the right-of-way is 150 feet, and that, once you hit Deerfield Center area and then move to the east towards the substation, the right-of-way is 200 feet, and it's comprised of two 100-foot easements. So, I understand from earlier testimony that the National Electric Safety Codes deals
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with the industry clearances of electrical conductors. Is there a standard that deals with industry setbacks for structures from the edge of a right-of-way?

A (Bascom) My area of expertise is underground cables, but I'm not aware of one specifically related to clearances for overhead lines in the right-of-way width.

Q So, all the standards are regulating what happens with the wires, wires to wires or wires to edge of right-of-way?

A (Bascom) Generally speaking, wires, in terms of clearance to the ground and adjacent wires, as well as approach distances for trained and untrained workers in the vicinity of those lines.

Q Do those standards have a name?
A (Bascom) Again, it's not my area of expertise. So, I can't speak to overhead line design. Okay. Anyone on the panel?

A (Taylor) No.
Q Okay. So, I'd like to take a look at Applicant's Exhibit 68117, and this is Sheet 179, from my sister-in-law's property, 65
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Nottingham Road. So, if you look at the two structures, and maybe Bob would be willing to point to Structure 3132-304. This is a 135-foot lattice tower. And also Pole Number 3132, which is 305, that's a 120 -foot lattice structure. Do you have an opinion as to what a typical setback for a 345 kV structure, like the Northern Pass towers, would be from the edge of the right-of-way? What do you typically see in design plans?

A (Zysk) I'm not intimately familiar with setback requirements for this sort of thing. I know they typically try to center a single line in the right-of-way. But they -- I'm sure they have set these according to the required separation distances. And different voltages have different setback -- or, different separation distances requirements.

Q So, just to clarify, your earlier statement was that "typically, lines are put in the middle of the right-of-way", as evidenced by the first easement has the existing $k V$ line is sitting right in the middle of the 100 -foot
right-of-way. And then the second 100 -foot
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right-of-way similarly has the structures sitting in the middle of the right-of-way, correct?

A (Zysk) Yes.
Q Thank you. Mr. Johnson testified on June 1st of this year, on Page 62, Line 11, that the bases are -- the bases of the towers are 30 feet from post to post. Do you have an opinion, in terms of does that, the size of the tower base, does that sound right to you, in terms of 30 by 30 ? Is that something typical that you would see for these types of structures?

A (Zysk) It's reasonable, yes.
Q Okay. Thank you. So, I'd like to take a look at Applicant's Exhibit 67708. And this is from the Alteration of Terrain plans from the DES. This is Sheet Number 340 . Can you confirm for me whether or not the crane pads for poles 3132-304 and 305 are located in the 15-foot tree buffer zone? Which is -- the tree buffer zone is on the south side of the right-of-way. And I may not have made that clear for you when I'm referring to the 15 -foot tree buffer. Do
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you need clarification as to where that is located?

A (Taylor) Yes, please.
Q These maps are oriented correctly north to south. And, on the southern edge of my family's property, from the pond that you can see in this exhibit, to the -- heading east, there's a 15-foot vegetative buffer.

So, does -- my question to you
specifically is, does it appear to you that the crane pads are sited right on the edge of the right-of-way?

A (Taylor) Yes.
Q Thank you. So, even though the maps are the most current $S E C$ submission, the plans would require clearing the buffer in order to construct as designed. Would you agree with that?

A (Taylor) That's correct.
Q Near pole 304, and this is the pole that is right on the -- right nearest the pond, there's
a knob of ledge. So, if this is true, and Northern Pass had to blast to construct the crane pad or in any way construct the tower,
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what would blasting do to a mature tree buffer?
A (Taylor) Well, if you were blasting and disturbing where the trees sit, the root zone, they wouldn't survive.

Q Are blasting protocols near ponds clearly identified in the Application?

A (Taylor) I'm not aware of any location where blasting is called out on the plans.

Q I'm sorry, I didn't understand the last part? (Taylor) I'm not aware of any location on the plans where blasting is specifically called out.

Q Okay.
A (Zysk) Other than a couple of the transition stations.

Q What would happen if, in order to dig -- in order to construct this tower, and we actually have the elevation plan, if that would help better. Why don't we put that up. I don't know if that will provide enough information for you. The very last page, Bob, of that whole set.

So, the question is, in order -- you can see that there's some elevation, and so they're
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dealing with elevation, as well as ledge. And, in order to set the poles for this tower, if they did have to blast, where -- obvious -- you say that the plans don't call for it. So, that would not be a surprise to a landowner that, if there is blasting on this Project, it's been identified, and $I$ don't have to worry about blasting, if it's not called out, as you say?

A (Taylor) I wouldn't characterize my statement that way. I indicated I'm not aware on the plans specifically where blasting is called out relative to the overhead transmission line, to clarify. But $\quad$ believe the Applicant has testified previously that they would, as they identify where blasting is needed, they would prepare, essentially, a blasting plan and review pre and post conditions as appropriate.

Q And when would those plans generally be created? Would they be in existence now or is each project different, so they may not be created right now?

A (Taylor) I would say each project can be different. And I'm not aware that they have been prepared, the blasting plan, at this time.
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Q Okay. Thank you. I'd like to look at Sheet 179, this is Applicants 68116. And this came from the supplemental map set from August. And the highlighted yellow line is something that $I$ estimated and put in, just to represent the middle of the right-of-way. So, it's intended on being, if you can visualize and imagine, that it's the 100-foot easement boundary between the two rights-of-way. And, from the detail that is in the bottom of the -- below the towers, you can see that the relocated 115 kV line is going to be placed at 78 feet 6 inches from the edge of the right-of-way. Would you agree with that, if you just add up to two numbers down at the bottom?

A (Taylor) I'll accept that.
Okay. And, if the conductor arm reaches out 10 feet, then that puts the conductor at 11 feet 6 inches from the edge of the 100 -foot easement. Does that sound about right?

A (Taylor) I'll accept that.
Q So, my question is, clearly, that conductor has plenty of room between that, the relocated pole and the existing pole that is sitting to the
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right in the northern easement, correct? So, there's no conductor concerns here at all. Would you agree with that?

A (Taylor) That's correct.
Q So, specifically, what $I$ was hoping you could answer is, is 11 -foot 6 sufficient clearance so that it's not going to impede across or in any way cross that imaginary 100 -foot line?

MR. NEEDLEMAN: Objection, Mr. Chair. There's nothing new or different here. Nothing has changed. This is just adding to existing testimony.

CHAIRMAN HONIGBERG: Ms. Menard.
MS. MENARD: May I ask Mr. Needleman to repeat the reason for his objection?

CHAIRMAN HONIGBERG: Sure. He'd be happy to.

MS. MENARD: My hearing is not the best. So, I would appreciate you repeating.

MR. NEEDLEMAN: Sorry. I was saying that there is nothing new or different here. All of this information was available to the witnesses at the time that they prepared all their testimony. And, if they wanted to speak
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to this, they could have and should have. MS. MENARD: I'm not sure that the witnesses would have knowledge of specific landowner concerns. And clearances, one of the big pending issues here is "does Northern Pass Transmission fit into this right-of-way?" And it seems to me that that's a very -- it might be, it may not be, but it might be a pretty basic question that they could answer, and I can let this question go.

CHAIRMAN HONIGBERG: It may well be. I'm not sure, though, that the first part of what you said helps you. But can you restate the question for me please? I'm not asking you to rephrase it. I just have lost what the specific question was, because I'm not sure that the argument you made fit the question. MS. MENARD: Okay. My specific question is, whether 11 feet 6 inches is a standard clearance for a 115 kV line to not be encroaching, if you will, or crossing a boundary? And we don't have a bridge or a row of trees or anything outside the specific boundary, but we do have a deed boundary. We
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have a boundary that --
CHAIRMAN HONIGBERG: I just want the question.

MS. MENARD: So, is 11 feet --
CHAIRMAN HONIGBERG: I just want the question.

MS. MENARD: Thank you. Is 11 feet 6 inches sufficient clearance for this conductor to fit in the 100 -foot easement?

CHAIRMAN HONIGBERG: Overruled. You can answer.

## BY THE WITNESS:

A (Taylor) I don't know, is the short answer. We did not review the electrical overhead design specifically as a part of our Construction panel review.

BY MS. MENARD:
Q Okay. Thank you. I didn't realize that. So, Mr. Quinlan referred to this line, the Northern Pass Transmission, and he was using this as a characterization more for a visual, not in any way technical. So, before there's any objections, $I$ just wanted to put that out there.
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But it's a nice way to think about this question that $I^{\prime} m$ about to ask you. Could these towers be reconfigured, and this is a follow-up actually to Mr. Van Houten's question, could these towers be reconfigured, once they are constructed, to add more conductors? So, if you look at this schematic, is there anything apparent that would cause one to think that, you know, another line could come in in five years or ten years or whenever, on this structure?

A (Bascom) Generally speaking, the electrical design in the permitted space would be something that would have to be evaluated as a separate process. So, based upon the layout that's been offered as a conceptual configuration would require further evaluation. And I don't think that we can speak to specifically modifications that might -- might or might not be offered in the future.

Q Do you see -- I mean, is one of the features of this style of structure is it that it can be modified easily, without having to do a complete line rebuild?
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A (Bascom) As I mentioned, you know, my background specifically is not related to overhead line design. But $I$ don't know that we can speak to how this proposed conceptual layout could or could not be modified. So, I think the answer is, we just don't know.

Q Okay. Thank you. Are the 345 kV towers, are they taller than they need to be as far as horizontal clearances?

A (Taylor) Again, I would state that we don't know, because we have not reviewed the electrical design specifically about the overhead, which is where $I$ think that answer would reside.

Q Okay. Thank you. So, that's all the questions that $I$ have. But $I$ do have a question about noise. And just to take a look at Applicants 68113. This is a section of Deerfield in the center that a lot of us are familiar with. And, with respect to construction noise, do you agree that construction noise may be problematic for residents of Sherburne Woods, in Deerfield? And this is a senior housing community, where the proposed 345 kV line will
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be extremely close to the housing development.
MR. NEEDLEMAN: Objection, Mr. Chair.
Exactly the sort of testimony that was already addressed on this issue and could have and should have been addressed.

CHAIRMAN HONIGBERG: Ms. Menard.
BY MS. MENARD:
Q What about fumes and smells from diesel-powered equipment near the homes for twelve hours a day, six days a week, do you see that as being an issue?

MR. NEEDLEMAN: Same objection.
CHAIRMAN HONIGBERG: Ms. Menard.
MS. MENARD: Well, if it has been
addressed in their previous testimony, I think that --

CHAIRMAN HONIGBERG: Well, it may not have been. The objection is that, if this was an opinion that these witnesses had, Counsel for the Public was free to have them offer it, and, for whatever reason, chose not to.

MS. MENARD: Their opinion was offered yesterday, and that's actually what prompted the question. So, --
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CHAIRMAN HONIGBERG: Do you have a question that's following up or seeking to clarify something that they said yesterday?

MS. MENARD: No. Just in terms of the level of activity and the density of housing in this area, would they have an opinion as to whether that is -- would noise and fumes would be a concern to that development? That was the question. So, that's --

CHAIRMAN HONIGBERG: I didn't quite hear the question that way. But it sounds like what you're doing is following up on questions I think Ms. Pacik asked, about what would happen in Concord, is that --

MS. MENARD: Correct. That is correct.

CHAIRMAN HONIGBERG: All right. You can ask that.

BY MS. MENARD:
Q Do you have an opinion, gentlemen, regarding noise?

A (Zysk) There will certainly be -- to clarify it as a concern, again, as $I$ discussed yesterday,
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it's relative. But, given the proximity of those residences to the proposed work, I'm sure they will experience increased noise levels, potentially some dust. Diesel fumes, maybe, depending on which way the wind's blowing. MS. MENARD: Thank you. That's all I have.

CHAIRMAN HONIGBERG: I understand, Mr. Cote, you have a few additional questions? MR. COTE: Yes. And I'll work from back there.

CHAIRMAN HONIGBERG: Wherever you
want.
MR. COTE: Good morning. Bob Cote, with the Deerfield Abutters. And I have -- my questions are follow-ups to testimony from Mr. Bowes.

BY MR. COTE:
Q But, just to give you a little bit of background, it's going to be relating to construction in wetland areas. And, in particular, I'm using this one in Deerfield, and $I$ know there are several others. So, the questions, $I$ think, are -- apply along the
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whole route of the Project. It's just that I'm a little more familiar with this area than others.

So, this is the transcript of Day 12, and it was Mr. Bowes. And the topic was construction sequencing in a wetland area. So, for this project, there's multiple stages of activity that need to occur. The existing 115 $k V$ line needs to be -- the new line needs to be built, then the existing line needs to be deconstructed, and then the new 345 kV line installed. So, the discussion with Mr. Bowes was over what kind of a time frame that work would take place. So, you see the highlight here is the question. And the response was "two construction seasons possibly".

So, what I'm asking you is, in your experience in a wetland area, is that about what you would expect?

A (Zysk) And a little more specific, as far as duration of construction or -Well, $I$ guess the question is really, how long of a time period do you think would be expected for construction activity to be taking place in
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an area like this? So, the concern is the disturbance to the wetlands. And it seems like it would make a difference whether the work were all completed in 30 to 60 days, or whether that wetland is going to be disturbed for, or any wetland, is going to be disturbed for maybe a two-year time frame, if it starts at the beginning of one construction season and then ends at the end of the next.

So, can you visualize the multiple activities that are taking place and, you know, based on your experience, offer an opinion of how long it would take to do that work?

A (Zysk) The testimony that was issued, "between 30 and 60 day time frame", is not unreasonable to construct a foundation and a tower in a wetland like this.

Q But the point was, over the whole transition of the Project, from building the new 115 kV line, deconstructing the existing one [115?] kV line, and then restructuring the 345 , the new Northern Pass line, that whole entire sequence of activities you think would take place in 30 to 60 days?
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MR. NEEDLEMAN: Objection. It's not clear to me that the testimony represented all of that. It may have. I just don't think that it's clear.

CHAIRMAN HONIGBERG: Mr. Cote.
MR. COTE: I do believe that the testimony did say that. We can bring it back up.

You can see here in the middle, first, they do say "30 to 60 days total construction time". But, then, on the next page, they do say that the actual time frame "could be up to two construction seasons".

CHAIRMAN HONIGBERG: Mr. Needleman.
MR. NEEDLEMAN: Well, I think that was my point. It wasn't limited to "30 to 60 days".

CHAIRMAN HONIGBERG: Mr. Cote, you want to try and rephrase the question.

BY MR. COTE:
Q Well, do you agree that two construction seasons is a possibility for the activity at a wetland like this?

A (Zysk) It's certainly possible. Based on how
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they -- how they stage the work. The " 30 to 60 days" is total impact, work days at a specific site. But, as explained in the testimony, it won't be all at one time. They will be working in several phases through the area, being to -to build things, to demo, certain other items, and then to bring the lines in.

Q There was an additional discussion during that testimony about summer versus winter work in a wetland. Do you -- and I'm not sure that we received a definitive answer as to when the work would actually take place. Do you have an opinion on what would be the preferred time frame for the work to take place in a wetland? (Zysk) There are several factors that go into that. One would be the size of the wetland. The concept of working on them during the winter, when they're frozen solid, to decrease the impact to the wetland is certainly -certainly seems to be a good idea, if allowed. A larger wetland may not completely freeze to the point where it can sustain -- or, to accommodate the large vehicles that may be required. So, they may be forced to work in a
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different season.

Q The part of the testimony, part of that discussion with Mr. Bowes, dealt with the question of a beaver lodge, which you can see right about in the center of this image, which is pretty close to one of the proposed locations for the relocated 115 kV line. It would be right in the construction pad.

From your experience with construction activities, when would a decision be made about how to deal with a feature like that, relative to the construction work?

I can show you a different exhibit that relates to that. And this is from the transcript of Day 12 with Mr. Bowes. And you can see in the center, the question was "when would a decision be made about reconfiguring the work in that area?" And the response was "Probably right during the construction phase."

Would you say that's an appropriate time frame to decide when to manage the beaver population in that area?

A (Zysk) Sometimes that depends on $I$ would call
"local knowledge". If a beaver habitat is
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constructed during the year, and then is destroyed during the winter, either by storms or other methods, that would probably be a construction thing. If it's something that's been there long term, it probably should be addressed during the design phase, if it's going to be an impact to the design.

Q And, in your experience, $I$ mean, I assume that environmental consultants would be involved, but who would make the final decision? I mean, with consideration of constructability and practicality, would the -- do the environmental consultants have the final say or is it the contractor who has the final say about how this, a situation like this, would be managed?

A (Zysk) If it falls within -- in my experience, if it falls within a right-of-way of a public road, typically, the DOT and the environmental staff within the DOT would have that decision. If it's outside of a public road right-of-way, then, typically, maybe your DES, your environmental people for the state would have that determination.

Q This is my last question. In your experience,
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what measures would be typically applied to minimize wetland impacts due to the multiple stages of construction in areas like this? So, specifically, for example, if there were matting, temporary matting put down, would you expect that, if there's going to be a six-month lapse in construction between one phase and the next of the Project, that that matting would be removed between phases of construction?

A (Zysk) That's driven by the permit requirements, but -- and also potentially the size, and maybe -- I know wetland are sometimes classified by quality of wetland, depending on that. But, if it was going to be a long-term duration where there was going to be no activity through there, $I$ would expect the mats would be removed.

Have you encountered a project like -- with a scenario like this before, where there's repeated work or repeated multiple stages in a wetland and that you can like direct these? Is there a standard protocol?

A (Zysk) Not that I'm aware of.
MR. COTE: Okay. Thank you. I have
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no further questions.
CHAIRMAN HONIGBERG: I don't see
Ms. Schibanoff here, although I'm told that Ms.
Pastoriza is in a position to ask
Ms. Schibanoff's questions for her. Is there
any objection to that?
I see some shaking heads. That's always encouraging.

MR. COTE: Dawn, okay, thank you. We want to keep Apple $T V$ on. Thank you.

MS. PASTORIZA: So, I'm asking -- is
that on?
CHAIRMAN HONIGBERG: Barely.
MS. PASTORIZA: I'm asking questions
for Susan Schibanoff, who's in the Non-Abutters Group for the Central portion.

BY MS. PASTORIZA:
Q This is NAPO-BP Number 58. This is the Gale River Motel, on Route 18, in Franconia. If you assume that the distance between the maple tree on the right and maple tree on the left, and the sign on the right is 35 feet, that the maple tree is 7 feet off the pavement, and the entry hatch to the septic system is 9 feet off
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the pavement, how would trenching be done through this section?

A (Taylor) So, one thing that comes to mind is, one, making sure that the septic is located and shown on the plans, and that can be done through a form of designating, locate it in the field, field survey it. That jumps out. I'm trying to get my orientation. So, the previous picture, we would be looking to the left, is that correct, on this image? Yup.
(Taylor) Okay. So, your question was "how would this be constructed, the open trench?" Within the limitations of that 35 feet. (Taylor) Sure. Well, as it's currently laid out, and the Applicants indicated they can and will use any space within the right-of-way, I would presume that, relative to the maple tree, they would construct right along and past it, and to the extent that there was roots in there, that would be impacted.

Relative to the septic, you've indicated it's about 9 feet away for the hatch. I'm not clear as whether that would be the septic field
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itself up that close, or just the septic hatch and box. So, it's possible that there could be room and separation between the existing septic and the trench.

But I would go back to my original statement of, if it's that close, probably it's warranted to more field investigation. So, would the tree need to be removed? (Taylor) Hard to say, given that size tree. I've seen trees that are very close to open trench, and they do just fine. And I've seen other trees that are further away than that. I think it has to do, based on my experience, with where the structural root zones of the tree are, and then how much of the critical root zone would be impacted as the trenching operation goes by.

Q And, if you assume the 35 feet or maybe even a two rod width here, in regards to trench placement, could a 15-foot area over the trench be kept clear of growth, as the Applicant has stated is necessary, without trespassing on private property with that clearing?

A (Taylor) I'm not sure $I$ fully understand the
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question with your assumptions.
Q The Applicant has stated that 15 feet over the trench needs to be kept clear of growth, because that -- the roots could work their way down and interfere with the integrity of the cables.

So, the question is, given where the trench would be, in the two-rod right-of-way, could you keep 15 feet over it clear without going outside the right-of-way?

A (Taylor) Based on the alignment that $I$ see here, $I$ would say it's certainly possible.

Q And can you explain why the granite monument in this diagram was not held?

A (Taylor) I couldn't speak to that.
And might an $H D D$ be used in this area?
(Taylor) One isn't shown, but certainly an option.

Q So, this is a letter from the owner of the Gale River Motel, to Northern Pass, after a site visit. If you accept that Northern Pass did not know of the existence of the septic tank at this location until the property owner reached out to Northern Pass last week, would it have
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been a good idea for Northern Pass to contact all property owners to find out about the existence of such underground obstructions, such as Mr. Johnson's septic system, before they planned the underground route?

A (Taylor) That seems like a reasonable -reasonable approach.

MS. PASTORIZA: That's all. Thank you.

CHAIRMAN HONIGBERG: Ms. Crane.
MS. CRANE: Okay. Am I on? In every way, okay. Well, no, maybe not. I am Charlotte Crane. I am a member of the Ashland to Deerfield Non-Abutters. And I have a few specific questions for you.

BY MS. CRANE:
Q And I guess I'll start with, do any of you recall any mention of the particular problems that might be presented when trenching or transition stations or towers are proximate to active railroad tracks?

A (Taylor) Are you referring to just general testimony by the Applicant?

Q Anything that you -- anything that was brought
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to your attention in the course of your preparation, for your reports or for your testimony today?

A (Taylor) Sure. So, relative to our report, we did observe railroads in proximity to some of the -- certainly, the underground location. Okay. So, the map that $I$ believe we are all looking at, which is Page 1 of what will be marked as "Ashland to Deerfield Non-Abutters 58" [AD-N-ABTR 58], I believe, are you familiar with this stretch of Route 3? It is where the underground portion ends and Transition Station 6 will be located?

A (Taylor) Yes.
A (Zysk) Yes.
Okay. And this is that same view, or roughly the same view, from Google Earth, the aerial photograph. And do you see where on this, which is Page 2 of what will be Exhibit 58, where John Jenness Road crosses the Daniel Webster Highway, otherwise known as "Route 3"? A (Taylor) Yes.

Q And are you familiar with where the Transition Station Number 6 is going to be located?
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A (Taylor) Yes.
Q And roughly where on this map or on this picture?

A (Taylor) If $I$ have my orientation correct, it would be south of the intersection of John Jenness Road and Route 3, in the area, I believe it's somewhat of an open area within that wedge, leading up to where the grove of trees are located.

Okay. And does the yellow marked on this Page 3 suggest that same area? This is from the Bridgewater town tax maps.

A (Zysk) Appears to be the same general area, yes.

Q It appears to be the same general area. And can you tell me what the relationship between the property highlighted as "Tax Lot 19" on this particular map is, to what is marked, at least as we can see it, "Boston Maine" on this?

A (Taylor) Sure. The area labeled as "Boston Maine", which is immediately adjacent to the highlighted yellow area, is where there are railroad tracks, if $I$ recall correctly. Okay. And is it customary to notify adjacent
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property owners, when doing things like building transition stations, in your experience? Whether they're railroads, whether they're anything, is it customary? Is it required to --

A (Zysk) It's customary to notify the abutters, yes.

Q Okay. And are you aware, with respect to this particular Project, whether it would be required?

A (Zysk) I'm not aware of any requirement of that.

Q Okay. Are you aware of who now owns the property identified on this tax map as the "Boston \& Maine Railroad"?
(Zysk) Who owns the railroad property? Uh-huh.
(Zysk) No, we're not.
Okay. And this is an excerpt from the "New Hampshire State Rail Plan" that was prepared in 2001. It is Page 33. It is describing the Concord-to-Lincoln line. Will you accept that this document is what $I$ purport it to be?

A (Taylor) I'll accept that.
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1 read for you, because it's kind of -- but let me know if $I$ 'm reading to fast or you disagree -- what I'm saying disagrees with what you can read.
"The Concord-Lincoln line, which runs the 73 miles" --

CHAIRMAN HONIGBERG: Slow down a little.

MS. CRANE: Thank you.
BY MS. CRANE:
Q -- "between Concord and Lincoln is owned by the State of New Hampshire. Two tourist services and one freight railroad operate over this line. The tourist services, both operated by Plymouth \& Lincoln Railroad, are the Hobo Railroad operating out of Lincoln and the Winnipesaukee Scenic Railroad operating out of Meredith."

Is that consistent with what the text seems to say here?

A (Taylor) It is.
Q Thank you. And this is -- unfortunately, I
don't have all of the identification for this,
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but it purports to be "Northern Pass
Transmission Development Site Abutters

Notification List". And can you find the cells that relate to Transition Station 6, which is labeled "TS6" here?

A (Zysk) Yes.
Q And can you find the third row there?
A (Zysk) Yes.
Q And what does it say?
A (Zysk) Let's see. "5804.02", "Boscawen \& Maine
Railroad", "Off Route 3", in "Bridgewater",
"Map 202, "Block 11", mailing address "High
Street - Iron Horse Park, North Billerica,
Mass", zip code "01862".

Q And, if you were advising a construction
project, and these two documents had come to your attention, would you urge the contractor you were advising to proceed or not, based -MR. NEEDLEMAN: Objection. I didn't know you weren't finished.

CHAIRMAN HONIGBERG: Yes. It sounded
like you had more to say. Finish the question. BY MS. CRANE:

Q -- based on the information contained in these
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last two documents?
CHAIRMAN HONIGBERG: Now,
Mr. Needleman.
MR. NEEDLEMAN: Now I'm objecting. Everything up to this point has just been recitation of facts. She's now asking for an opinion that could have and should have been given, since there's no new information here.

CHAIRMAN HONIGBERG: Ms. Crane.
MS. CRANE: If the Committee isn't interested in new information that relates to the State not having been notified, my next question was, given this chart, would it surprise you that the person that I talked to at the Department of Transportation Rails Division was unaware that there was any involvement of the property over which he is responsible for planning, with respect to the Northern Pass Project?

MR. NEEDLEMAN: And it would be the same objection.

CHAIRMAN HONIGBERG: Ms. Crane.
MS. CRANE: This information may have
always have been there. But $I$ assure you that
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it has not been easy to put together the puzzle here. And, therefore, this is new to me as of last week. I don't know whether it's new to the Committee. I don't know whether it's new to Northern Pass's own experts, given that at the time that this chart was prepared, the ownership was not accurately described.

CHAIRMAN HONIGBERG: Right now you're talking to Counsel for the Public's experts on construction. And I'm -- still not entirely clear to me what it is you want to know from them. Do they have -- would they have advised a client to go forward if they had seen a document like this?

MS. CRANE: These two documents together, yes.

CHAIRMAN HONIGBERG: These two documents. I'll allow them to answer that.

BY THE WITNESS:

A (Taylor) Sure. Based on the two documents that you've shown, there's nothing there that would lead me to believe we would advise a client to not move forward.

BY MS. CRANE:
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Q So, the lack of notification to the abutting owner would not trouble you?

A (Taylor) I'm not saying that. But, based on these two documents, $I$ don't have enough information to glean where the mailing address came from. It's not atypical, when we see tax map information, and the mailing address to be separate from who, one or many levels down of the ownership may be versus who's using it, and who may be listed in documents.

Yes. We're all lacking information here.
Thank you. I do have one more line of questions.

This is the same track a few miles north, Daniel Webster Highway/Route 3 is depicted, and the Pemigewasset River and the railroad tracks. And this is a view, $I$ am afraid can't identify specifically which footage this is, this was taken from the railroad as it went by. Do you see any particular challenges to laying the underground line along this section of Route 3, given the proximity of those railroad tracks and the topography here?

A (Taylor) Sure. May $I$ ask, where is this along
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the route, if you know?
Q This is immediately south of Plymouth.
A (Taylor) Okay. This looks familiar to me. I believe I've walked this area, along the tracks and this particular retaining wall.

So, to answer your question, if the construction were towards the side of the railroad tracks, the guardrail, and the retaining wall, there would have to be some sensitivity to the construction of that retaining wall and its disposition. I'll say I believe there is an exemption that was put in for this area, which proposes the underground line to be located on the opposite side of this, the right-of-way.

Where it's nice and flat, according to this picture?

A (Taylor) I wouldn't characterize that as "flat".

You would characterize it how then?
A (Taylor) There's some steep topography as you get outside the travel lanes.

MS. CRANE: That's all my questions. CHAIRMAN HONIGBERG: Ms. Draper.
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MS. DRAPER: Well, good morning. I'm Gretchen Draper. And this is Max Stamp on the ELMO. And we are two of the representatives from the Pemigewasset River Local Advisory Committee. And today we'd like to talk quite a bit about "best management practices", which you've addressed in your prefiled testimony and your supplemental testimony.

BY MS. DRAPER:
Q I'd like to start with asking you about what New Hampshire-based manual -- construction manuals did you review when you were preparing this report?

A (Zysk) I don't remember the exact title off the top of my head, but there are several manuals in the -- I want to say, maybe it's the New Hampshire Storm Water Manual, there were several manuals.

Q Uh-huh. Yes. I was thinking of the Storm Water Pollution Prevention Plan Draft, also there's a Best Management Practices Manual for Utility Maintenance, that comes from New Hampshire DRED.

A (Zysk) Uh-huh.
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Q And then there's the New Hampshire Storm Water Manual.

A (Zysk) Right.
Q Those seem to be the three. Is there anything else you reviewed that you would add to that or does that pretty much cover it?

A (Zysk) As far as state manuals. We've also reviewed, obviously, the Applicants' plans and documentation.

Q Yes. Right. And do they have a document that goes to best management practices?

A (Zysk) One of the permit -- several of the permit applications describe them in detail. Right. Okay. Thank you. Now, I think we'll start with the best management practices. And just to let you know what it looks like here. And, then, on the next page, it talks about that this -- what the purpose of this manual is. Are you familiar with this? Does this look -- is it familiar?

A (Zysk) Somewhat.
Somewhat, okay.
(Zysk) I'm not as familiar with this one as the DOT manuals.
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Q Okay. All right. The DOT. Well, this one we're interested in because mainly, as you read there, the purpose of this manual is really more for maintenance than it is for construction. It's not intended to be used for, you know, new access roads, permanent crossing of streams, new construction of utility assets, etcetera. And I guess, when you see something like this, what limitations do you see in terms of a construction -- a construction team using this manual?

A (Zysk) It has a very specific application.
Q Right. And, so, you wouldn't expect to have it around a construction site during construction, you would expect it to be around afterwards? (Zysk) In part. Without being familiar with the manual, there are potentially some -- some of the information inside could be applied to construction.

Q Sure.
A (Zysk) But it would obviously require something above and beyond just this.

Above and beyond. All right. Now, what
construction guides do you tend to use in your
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own work? Is it state-oriented or is it job-oriented?

A (Zysk) A lot of my work is for public agencies, the state. So, I use state manuals. A lot of -- some of the municipalities require the use of the same state manuals, some of the larger ones, cities, have their own. So, we tend to -- we would use those.

Q Okay. And what about Mr. Taylor, Mr. Bascom, do you use this kind of manual -- what kind of manuals do you rely upon for best management practices?

A (Taylor) Similar to Mr. Zysk's response.
Q Uh-huh.
A (Taylor) To the extent that they're applicable, the state level, county, or city.

Okay. Mr. Bascom?
A (Bascom) Generally, for electrical design issues, the standards and guides are more national-oriented documents, such as the Institute of Electrical -- Electronic Engineers, the Association of Edison Illuminating Companies, and also some international standards by the International
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Electrotechnic Commission, IEC, and the technical organization CIGRÉ.

Q Okay. Thank you. All right. Now, we're going to turn to there's a Burns \& McDonnell

October 2015 Storm Water Pollution Prevention Plan, it's a draft. Did you refer to -- did you see this plan at all that came through?

A (Zysk) I believe so, yes.
Q And here I'd like to -- this is Pemi 10.
That's the exhibit. I'd like to draw your attention to the "Sediment to Storm Water" area. That's something we're very concerned about. And would someone read that highlighted sentence there. It starts with "Sufficient". Anybody. You could fight over it. Draw straws.

A (Zysk) "Sufficient and appropriate BMPs will be installed and maintained where necessary, when surface water is located within 50 feet of the Project activity and where there is a lack of natural vegetated buffer."

Q Right. And we're interested in your interpretation of that sentence, if you were working under those conditions. How would you
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interpret that?

A (Zysk) I would interpretate it literally. If the distance to surface water is within 50 feet, or fifty feet or less of where $I$ was proposing to do work, I would have to install some sufficient and appropriate BMPs.

Q Uh-huh.
A (Zysk) Or, where there was a lack of a natural vegetated buffer.

Q All right. And do you feel that the 50 feet from a water body is adequate usually?

A (Zysk) If sufficient and appropriate BMPs are installed, yes.

Q Could you give me an example of a sufficient BMP in that situation?

A (Zysk) There are too many variables to be specific.

Q Okay. All right. Well, let me, if the -- Ms. Crane showed you the picture of the retaining wall, and then there's -- this is on Route 3 that you had visited, the Pemigewasset is, of course, right -- it goes right down to the Pemigewasset. What kind of BMP would you have if you were working in that area?
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A (Zysk) Again, it depends where in the area I was working.

Q Okay. When might be the 50 feet not be appropriate?

A (Zysk) I'm not sure I follow you.
Q Well, I would -- if you're going to take it literally, and you're in the field with a construction team, is there something that would happen that you would say "okay, this isn't going to work", and who would decide that? Or is it just always going to be 50 feet?

I wonder if you have any flexibility?
Maybe that would help you.

A (Zysk) There's always -- well, if you've set an absolute minimum of 50 feet, then that's what applies.

Q Okay.
A (Zysk) You can always install BMPs when it's farther than fifty feet.

Q Okay. Thank you. Let's see. Okay. We're thinking in terms of the Pemigewasset watershed. Is it fair to say that our watershed, which is like a thousand square
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miles of area, with lots of steep slopes, lots of water, is it fair to say that we have sort of that setting for some severe storm water events? This is just a general question. It could happen.

A (Zysk) The severity of a storm water event is irrelevant to the size of the watershed.

Right. Well, --
(Zysk) So, if you get what's classified as a "100 year storm", and they happen with some frequency, yes.

Q Uh-huh. Okay. And with that, of course, we're concerned about erosion and storm water, you know, the sediment coming in. And $I$ think, Mr. Zysk, yes, you were talking about when BMPs should be started in the construction process. Do you remember that?

A (Zysk) Yes.
Q Yes. Could you tell us a little bit about it? MR. NEEDLEMAN: Objection, Mr. Chair.

It sounds like we're talking about very generic testimony that could have been addressed. CHAIRMAN HONIGBERG: It really is, Ms. Draper. It's all very generic testimony.
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What is it you want to know from these gentlemen that is related to something that's happened recently, some new information? Something?

MS. DRAPER: Okay. Well, I guess what I'm concerned about are the BMPs that are not written, the BMPs that are not site-specific --

CHAIRMAN HONIGBERG: And are any of these BMPs new, that have come up in something after they filed their prefiled testimony?

MS. DRAPER: That's part of my -that's one of my questions, too. So, is there anything new in the situation? I'm interested with the timing as well. Because one of the things that came through in the testimony was that these BMPs really need to start now, before the construction. And that there were concerns about monitoring that needed to go on. Those are the kinds of things that I'm interested in.

CHAIRMAN HONIGBERG: This all sounds
like things that are in their prefiled
testimony --
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MS. DRAPER: Uh-huh.

CHAIRMAN HONIGBERG: -- or could have been in their prefiled testimony.

MS. DRAPER: All right. And part of my question is, have they seen any BMPs for specific locations, because that was one of their concerns?

CHAIRMAN HONIGBERG: Okay. That sounds like a great question.

MS. DRAPER: Okay. There's a question. Okay.

BY MS. DRAPER:

Q And is there anything new on site-specific BMPs?

A (Zysk) I believe our testimony was that there are certain locations where the line style that they used indicated a BMP application. But, as to what that was, it was not made clear.

Q Right. And when would you expect that to be made clear?

A (Zysk) Probably, that's a site-specific thing. So, it could be well past the halfway point of their construction document development, as to develop what site-specific BMPs they're going
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to use.
Q Uh-huh. And you had also said that there's the minimum requirement of 90 days from the time that say a project could be permitted, to the reviewing documents for the construction, that there's a 90-day minimum time, and it might not be sufficient to provide the detailed review of documents required for a project of this magnitude. Do you still believe that? Page 7, Line 24.

A (Zysk) I mean, I don't -No, I'm just wondering. We're looking at the time frame. So, I'm picturing this Project. Now, if it were permitted, and then suddenly there's 90 days before everybody needs to get BMPs, you know, best management practices in, site-specific, New Hampshire DES will be loaded with things. So, are you concerned that the 90 days is not enough time or have you changed -changed your mind on that?

A (Zysk) I have not changed my mind on that.
Okay. Thank you. All right. Well, we're going to get down to one of the things, okay, we have -- the best management practice manuals
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that we've seen are about 11 to 12 years old, with a couple of revisions. And, so, I'm wondering if environmental best management practices have a shelf life?

A (Zysk) I know there's continually being research done at various locations, both -- I think UNH has a large testing facility associated with it. Other states do as well. Uh-huh.
(Zysk) The details that are included in these manuals were all adopted by most of the New England states around about the same time, and not a lot has changed in the interim. So, I don't know that they have a shelf life. If they're effective, they keep being used. All right. Okay. And $I$ guess what we're concerned about, what about the map, Mr. -- no, your map there with the -- we're looking in this area now, even just this year in Grafton County, we've had two major weather events. One took place in Plymouth, where it was flooded, and 30 cars were floating in the parking lot. And then, in July, there was another one where there were port-a-potties
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floating down the Pemi. So, this is what we're concerned about. You know, these are the kind -- there's changes, and we are interested in this map here.

This is actually Exhibit Pemi 5. It was done by the National Climate Assessment. And we're looking at, you know, the change in very heavy precipitation, and it looks like our area gets the jackpot.

So, I guess what I'm concerned about is, if there are these kinds of weather patterns coming to our area, we've seen them, they're kind of here, what happens to the BMPs? How quickly do we readjust them to meet the kinds of difficulties we're seeing?

MR. NEEDLEMAN: Mr. Chair, I think I'm going to object. This sounds like very generic testimony.

CHAIRMAN HONIGBERG: Is rain a problem, heavy rains? Changes in weather patterns?

WITNESS ZYSK: A heavy rain, by itself, depending on the duration of it, could be a problem. But a long -- long-term climate
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change, which $I$ think what you're kind of alluding to, is probably not going to -- even though this is a potentially two- to three-year construction project, it's not going to affect it, I think, along the lines that what you're thinking.

An individual heavy event will -they will have to revisit their BMPs, make sure they're still functioning the way they're supposed to, make sure they're still in place. But an overall long-term change in precipitation has very little impact on this. BY MS. DRAPER:

Q All right. What happens when cars are flooded, and I'm thinking of oil and gas going into the river, that's just considered like a one-time event, and clean it up and move on?

MR. NEEDLEMAN: Objection.

## BY THE WITNESS:

A (Zysk) That's beyond the realm of the construction project.

BY MS. DRAPER:
Q Yes. And I am thinking about the construction project. I'm thinking about the open trenches.
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I'm thinking about Sugar Hill where the road collapsed, and they're going to be building trenches. That's what I'm thinking about.

And I'm also -- I have one final question. Yesterday, Mr. Ahern brought up Japanese knotweed, and nobody knew what it was, is that true?

A (Zysk) I think we decided it was an invasive species.

Q Yes. It's an invasive species. And I think this would be something -- I'm wondering, and we're all very concerned about invasive species here in New Hampshire, and especially on the right-of-way. I'm wondering, when the construction teams dig up the dirt, do all the excavation, how do they search or how do they decide there are no invasive species, especially something like Japanese knotweed, which is prevalent in this area? How do they determine that?

A (Zysk) I believe there would have to be indication of it before they started construction. That would be identified in their environmental submittals, and possibly on
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follow-up by the DES or by the state, to be aware that it's there and to take appropriate measures.

Okay. What would be appropriate measures for something like that? You know, the trucks come in, they're getting ready to dig, there's knotweed, what would they do?

A (Zysk) I think, as I described yesterday, they would have to remove -- probably remove the living weed as it is, and then potentially the soil or excavated material that it was in may not be able to be replaced.

Q Uh-huh.
A (Zysk) Or it would have to be treated with an herbicide before it was put back in the ground. That would be a decision by DOT or DES. Uh-huh. And would using the herbicides take an exception or a permit or something special like that?

A (Zysk) If it was -- that's something that I can't answer. If it was a potentially sensitive area, $I$ would expect so.

Uh-huh. Okay.
(Zysk) Not always.
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[WITNESS PANEL: Zysk|Bascom|Taylor]

MS. DRAPER: All right. Let's see.
I think -- all right. Thank you very much.
CHAIRMAN HONIGBERG: And the only
other applicant $I$ have on my list is Mr. Raff. Is there any other group, before you go, Mr. Raff, before you say anything, is there any other intervenor group that has questions for this panel?
[No verbal response.]
CHAIRMAN HONIGBERG: Now, Mr. Raff.
MR. RAFF: The IBEW doesn't have any questions for this panel. Thank you.

CHAIRMAN HONIGBERG: All right.
Mr. Needleman -- just off the record.
[Off-the-record discussion ensued.]
CHAIRMAN HONIGBERG: Back on the
record. We're going to break for lunch, and we will resume shortly after one o'clock.
(Lunch recess taken at 11:56
a.m. and concludes Day 51

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