

STATE OF NEW HAMPSHIRE
SITE EVALUATION COMMITTEE

September 24, 2018 - 1:05 p.m.
49 Donovan Street
Concord, New Hampshire

DAY 7
Afternoon Session ONLY

{Electronically filed with SEC 10-08-18}

IN RE: SEC DOCKET NO. 2015-04
Application of Public
Service of New Hampshire
d/b/a Eversource
Energy for Certificate
of Site and Facility
(Adjudication Hearing)

PRESENT FOR SUBCOMMITTEE/SITE EVALUATION COMMITTEE:

Patricia Weathersby <i>(Presiding Officer)</i>	Public Member
David Shulock	Public Utilities Comm.
Dir. Elizabeth Muzzey	Div. of Hist. Resources
Charles Schmidt, Admin.	Dept. of Transportation
Dir. Christopher Way	Div. of Economic Dev.
Michael Fitzgerald	Dept. of Env. Services
Susan Duprey	Public Member

ALSO PRESENT FOR THE SEC:

Michael J. Iacopino, Esq. Counsel for SEC
(Brennan, Lenehan, Iacopino & Hickey)

Pamela G. Monroe, SEC Administrator

(No Appearances Taken)

COURT REPORTER: Cynthia Foster, LCR No. 14

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P R O C E E D I N G S

(Hearing resumed at 1:05 p.m.)

PRESIDING OFFICER WEATHERSBY: Good afternoon, everyone. We'll resume questioning of Dr. Chalmers, questions from the Committee. Who on the Committee wants to go first? Mr. Way?

QUESTIONS BY DIR. WAY:

Q Hello, Dr. Chalmers. Good to see you.

A Thank you.

Q Bear with me a second. So we talked a little bit earlier about your previous evaluating the visibility, and it was from either the road or from the right-of-way. Were there any instances where you felt you didn't have enough information? So, in other words, I had a right-of-way that was way over here and the road over here and the house was up in back? That you felt that you couldn't make a good judgment call and that impacted your findings?

A Yeah. There were certainly a lot of cases where I was really tempted to drive up the driveway, but we didn't have permission to enter the property. That wasn't possible. The, having

1 the time series now of Google Earth where you
2 not only can look at the most current imagery
3 but you can go back and look at the leaves off
4 is really a huge help. So that would be, it was
5 really the combination of what we could observe
6 on the ground and then what we could supplement
7 with the aerial imagery.

8 And, you know, always, we haven't really
9 emphasized it here, but we certainly did in
10 previous sessions that I wouldn't represent this
11 as a visual assessment. This is trying to get
12 an order of magnitude question of are the
13 existing structures visible, okay? Are the
14 existing structures visible from the house and
15 will the new structures be visible, but parsing
16 that, getting that fine-tuned would have to be
17 done on the property, and that wasn't my
18 objective. The objective was to try to get an
19 order of magnitude estimate and I think that was
20 reliable. You know, there are a few cases on
21 the edge where you're not as comfortable with
22 it, but I think in general, quite confident. I
23 also always had another person with me.

24 Q That was my question.

1 A On one trip Robert Ball was with me who is
2 appraiser with Amidon. Another trip Joe Sperry,
3 Project Engineer, and Lauren Cote were with me,
4 and we also would independently assess before we
5 talked to each other about it.

6 Another trip, I had, actually, went with
7 Lauren and Joe Sperry together, and I went with
8 Lauren by herself and went with another
9 appraiser, Brendan Hall, accompanied me. So
10 there were several of us who have looked at it
11 and made these judgments, and I think given our
12 objectives I think they're reliable and useful
13 and answer the question.

14 Q Remind me, is Amidon local?

15 A No. They're actually in Maine, but they're on
16 the border and they're kind of GIS. They're
17 particularly proficient in GIS work and
18 developed a lot of the graphics that show up in
19 the case studies in terms of proportion of the
20 properties encumbered and locating the
21 structures on the aerial photography.

22 Q The question that was offered about perspective
23 of the view from being outside or inside,
24 correct me if I'm wrong, but I don't think any

1 studies have done it from the inside, and I
2 don't think we've evaluated it from the inside.
3 It's always been from the outside; am I correct?

4 A Right. From the outside.

5 Q From the outside.

6 A Right.

7 Q You know, one thing I'm interested in is the
8 degree of communication between all the topical
9 parties, whether it be property taxes, orderly
10 development, et cetera, and you mentioned that
11 you had used some of Mr. Varney's land use
12 findings for your findings. And I'm just
13 wondering were there other issues raised in
14 orderly development that gave you pause or made
15 you change some of your findings in the
16 supplemental that was just issued a while back?
17 I see the two sort of joined at the hip, and I'm
18 just trying to get a sense as to how much
19 collaboration that you may have had with orderly
20 development.

21 A Right. I guess we've always thought of it as
22 pretty hierarchical. My studies sort of form
23 the base and those fed into the orderly
24 development testimony that Mr. Varney developed.

1 However, his land use testimony which is a
2 little more specific than the broader question
3 of orderly development was something that was
4 helpful to me in understanding better the land
5 use along the route.

6 So I did look at his land use. We
7 discussed that. But he, but I haven't addressed
8 or been, tried to address the orderly
9 development issue. I've really been focused on
10 the property value, on the market value effects
11 of the line on property. And that he's
12 synthesized that into the orderly development
13 conclusion. Does that answer your question?

14 Q I think so. You had mentioned, too, that the
15 intensity in the corridor doesn't seem to
16 matter. Small or large and you either like it
17 or you don't. I get that sense from you. And
18 that's something that comes from the
19 Connecticut/Massachusetts study, does it not?
20 Or is that --

21 A No. I think that, one of the strongest pieces
22 of evidence on that is comparing the results
23 from what was our Corridor number 1 and Corridor
24 number 2 in the original New Hampshire studies.

1 Corridor 1 being the Phase II, the Hydro-Quebec
2 Phase II corridor that had the three big lines
3 in it or Corridor 2 was the small PSNH corridor.
4 But it also comes, it also comes from the
5 literature, and then the case studies as a
6 general proposition doesn't support that. You
7 know, it's really important, obviously the
8 corridor intensification matters a lot to the
9 people that live along it, right? I mean, if
10 the structure goes from 40 to 80 if you live
11 next to it, that's going to be the something
12 that you notice, and you may have very strong
13 feelings about, but, again, I'm always looking
14 at it not from the perspective of somebody
15 comparing 40 to 80, I'm looking at it as
16 somebody who comes in and looks at the property
17 once all that's there is the 80. Okay? And is
18 that person likely to say, well, geez, I kind of
19 like that property if only that structure had
20 only been 40 instead of 80, and that's probably
21 not going to happen very often, right? And that
22 person either is willing to consider living
23 there or not given that the property is
24 encumbered by an easement and there's a power

1 line in the back yard and there's structures.

2 Q You had mentioned that they tend to have a
3 rationale, that they can dismiss that aspect or
4 put it in another place because of other
5 characteristics.

6 There was a question, may have been from
7 Attorney Aslin, I don't recall, where he was
8 trying to get a sense of what other
9 characteristics might be in place to offset that
10 rationale, to offset that, and I think --

11 A Right.

12 Q And I think you mentioned that that was
13 difficult to assess and I can appreciate that,
14 more from a quantification issue, I would
15 imagine, but as you know the area or as you're
16 looking at the area are there characteristics
17 that tend to offset the impact of the power
18 lines expanding in the right-of-way?

19 A Yes. And we've increasingly, the interviews are
20 really important. You know, if I had to have
21 one piece of information to assess whether a
22 sale was impacted by the transmission line, I
23 don't know, it would be hard to decide between
24 the appraisal and the interview, but if you get

1 a good interview with a listing broker, that
2 listing broker kind of knows the consideration.
3 A, they're familiar with the market, the
4 considerations that went into the listing price,
5 what kind of traffic they had, what people were
6 talking about, what was negotiated. Typically
7 if there's a blemish on a property the buyer
8 will use that as a negotiating point, right?
9 The roof is 15 years old, how about knocking off
10 five grand so we can replace it in five years,
11 sort of thing so, and we've put more and more
12 emphasis on those interviews.

13 And I thought it was particularly useful,
14 page 22 of my Supplemental Testimony, I just
15 listed off these comments of the brokers because
16 in these 20 new case studies, 13 of them had
17 clear visibility of structures, 7 had homes
18 within 100 feet, 9 of them had properties that
19 were encumbered, but only two of them did we
20 conclude there was a market value effect.

21 And the kind of things they mentioned were
22 like the HVTL were distant. The HVTL are not
23 very intrusive, the wooded backdrop of the
24 corridor configuration softens the impact. The

1 property was sold to an engineer who didn't care
2 about HVTL. The lines were far enough away.
3 Kind of goes on. The buyer had some concerns
4 but the tight market and limited inventory
5 caused the concerns to be set aside. Open space
6 benefit of the right-of way outweighed the
7 negative effects. The mother-in-law apartment
8 was a big deal for one of the buyers.

9 So you get this sort of whole set of
10 suggestions which I think kind of helps you
11 understand what's really going on out there in
12 the market. That just other, I don't think, on
13 one suggested that, well, there was one, the
14 engineer was neutral apparently, but all the
15 other are implicitly saying it's a negative
16 attribute of the property but other
17 considerations dominate.

18 Q Can you tell if any of those, from those
19 interviews if they used that as a price
20 negotiation tool?

21 A Well, we'd have to look at them individually,
22 but there were only two in which we concluded
23 that there was an effect on the transaction so I
24 think not.

1 Q Okay. You didn't really look at the submarine
2 activity, correct? Underwater?

3 A Well, no. I mean I looked at the Crowley
4 testimony and also at the testimony of the
5 Millers, particularly with respect to the
6 mattresses, and tried to understand what that
7 might look like and whether that might have some
8 impact on the value of their property so not
9 much beyond that, but certainly that point at
10 which the submarine cable interfaced with the
11 land, I took a look at it, yes.

12 Q And refresh me what your finding was there?

13 A Neither of those properties appear likely to
14 experience market value effects sort of based on
15 their characteristics relative to what we've
16 found. I doubt there would be an effect on
17 those properties. Again, based on the research
18 we've done.

19 I think, you know, it's property specific
20 and what would happen to the individual
21 property, I don't think we can predict. There
22 would have to be a sale, and, again, there would
23 be all kinds of issues that would affect that,
24 but it's not, wouldn't be what I would consider

1 to be experienced as an intrusive effect on that
2 property, and that's really where we find
3 effects is where it becomes a real
4 characteristic of the property. It would be a
5 change for those people, you know, for those
6 residents it would be a change, a noticeable
7 change, but I think someone looking at the
8 Miller house would or at the Crowley house would
9 probably say what's that, and they would say oh,
10 that's some protection for some underwater
11 cables and for most people that would be the end
12 of the story.

13 Q Okay. So we're talking about the mattress that
14 would be in the tidal area.

15 A Exactly. Right.

16 Q So those two things; mattress and actually the
17 cables in the right-of-way. And so both of
18 those you don't, in combination, you don't think
19 that those would have an impact?

20 A We looked or tried to look at the underground,
21 and we just don't see any evidence of things
22 that are out of sight. You know, once there's
23 no visual evidence of it, it seems to be ignored
24 in the market is our experience.

1 Q You know, in terms of underground, does that
2 actually, do people in their rationale actually
3 look at that and say well, it's underground
4 which means I'm probably not going to have up
5 above in the near future. Does that -- do they
6 ever take that look?

7 A I mean, I can't really --

8 Q Do you know what I'm saying? In other words, if
9 it's underground, the chances then of having an
10 aboveground in the same right-of-way which might
11 be more visibly intrusive might be less.

12 A I have a tendency to digress here. I think one
13 thing that is happening in the market, and I
14 hope this addresses your question, is that
15 people are getting a little more sophisticated
16 about the fact that if they have an easement on
17 their property they better pay attention to what
18 that easement allows. Right? They have sold
19 basically most of the property rights.

20 I mean, easements sell for 75 to 90 percent
21 of the fee value of the land. Okay? That means
22 you're giving away 75 to 90 percent of the
23 rights you have associated with that property.
24 And if you have a one-acre lot and you give away

1 90 percent of the rights on half of it, you
2 better understand.

3 No, I think historically that may not
4 always have been well understood, but in
5 increasingly, utility lines, fiber optic cables,
6 all kind of linear infrastructure is built in
7 existing rights-of-way because it's almost
8 impossible to develop a, call it virgin
9 corridor, and I think people are more
10 sophisticated in that regard. And I think some
11 of the results we find, we find that proximity,
12 visibility and encumbrance all come together,
13 and we don't know really is it visibility that's
14 driving the price effect, is it encumbrance
15 that's driving it or is it proximity? And I
16 think increasingly it might be encumbrance.

17 If I'm looking at a property and there's a
18 major easement on it, that's a really big deal.
19 So I think, you know, to the extent you have
20 underground, an easement on your property that
21 has underground cable in it, that's something
22 you could be sensitive to. Even though there's
23 obviously no visual effect.

24 Q My last question for now. Raised earlier about

1 the dispute claim versus the guarantee, and it's
2 my bad for not understanding the dispute claim
3 more than I should right at this point. Your
4 sense is to how they're different? I would
5 interpret the dispute claim as simply being
6 that. It could be a construction dispute, but
7 it isn't something that would have a guarantee
8 of sale. That's just not in the nature of it or
9 am I reading it wrong?

10 A Well, the guarantee didn't contemplate a
11 guarantee of sale. It was just compensation
12 after the fact. If you had a sale and you
13 didn't think you got what you should have given
14 the line, then you had the opportunity to make a
15 claim essentially or develop evidence and make a
16 claim. And so the two, I think the two have
17 exactly the same objective to give the property
18 owner recourse. You know, we're talking about a
19 pretty small number of properties to start with.
20 Every attempt will be made to sort of mitigate
21 the potential visual effects in particular on
22 the property, but, you know, if that, for
23 whatever reason, leaves the property owner in a
24 position where they think they suffered a loss,

1 they've got a mechanism to make a claim, to
2 develop proof of that and to make a claim.

3 Q So I just want to make sure I understand because
4 that helps to clarify. In that dispute claim,
5 that if I, one of the things that I can request
6 or I can dispute is the fact if I sold my
7 property and it went for this, less than what it
8 should have, there's a delta there, I can put
9 that into that claim. That's in addition to
10 construction or business lots or whatever it
11 might be. That dispute process, that does
12 address that?

13 A Yeah. As a matter of fact, the guarantee
14 required a sale. The proposal as I understand
15 it now doesn't require a sale. That if the
16 property owner subsequent to construction is
17 convinced and has evidence of decrease in the
18 market value of their property, they can enter
19 into the process. And in the early stages
20 discussions, attempts to mitigate further
21 discussions with the utility, and then
22 ultimately mediation, and if that all fails
23 ultimately arbitration.

24 Q All right. Thank you very much. Followup? And

1 thank you.

2 PRESIDING OFFICER WEATHERSBY: Director
3 Muzzey?

4 **QUESTIONS BY DIR. MUZZEY:**

5 Q To follow up on the line of questioning we just
6 had, what evidence do you think a property owner
7 would have available to demonstrate the loss of
8 value of their property postconstruction?

9 A Well, the best evidence, and I would say it's
10 unique, it's really unique, is the hundred case
11 studies that were carried out over the last two
12 years in New Hampshire and New England
13 generally. I mean, it's a database, it's the
14 most comprehensive, well-documented, most
15 carefully vetted database that exists anywhere
16 in the country and speaks directly to the issue.
17 So that would be my first response.

18 My second response would be real estate
19 experts, there are appraisers who would opine on
20 market value and, you know, with respect to an
21 external factor and the kind of evidence they
22 would develop would be probably basically case
23 study type evidence, that they might find that,
24 you know, let's say there was a house on Little

1 Bay that was making a claim, and there were a
2 couple of sales on Little Bay that were apropos
3 to the property in question and they might bring
4 that evidence, but those would be the kinds of
5 things that you would look to.

6 Q So it would be incumbent on the property owner
7 to have a recent appraisal prior to the
8 construction and then have one postconstruction
9 in order to provide that loss of value?

10 A I don't think so. Too many things change over
11 time to make that. I think --

12 Q I'm just wondering how they would quantify the
13 loss of value if there wasn't a preconstruction
14 appraisal and then a postconstruction appraisal?

15 A Obviously, the best evidence would be a sale,
16 okay?

17 Q But if they didn't want to sell their house.

18 A Okay. So then the question is, you know, what
19 convinces them, why do they think there's been a
20 market value effect. Okay? And they must have
21 some reason to think that. And the reasons I
22 can think of are the ones I just mentioned.
23 That, you know, here we've got this huge
24 database that's unparalleled anywhere in the

1 country. That would be the first thing I'd look
2 to. And if my house was 35 feet from the
3 right-of-way and I had full visibility of the
4 new structures and so on and so forth and it was
5 encumbered, you could certainly mobilize that
6 database to support a claim.

7 Q Although would it give you specific numbers as
8 to how much less your property may be valued?

9 A That database would certainly support a claim.
10 Just how it was, you know, how one would apply
11 it to that particular question would be
12 circumstantial, I think, but, you know,
13 depending on the specifics of the property, but
14 it could definitely support ultimately either a
15 point estimate or perhaps a range, say, you
16 know, my property kind of fits into this
17 category and we see this kind of range in the
18 data, but my property is more like these guys
19 than those guys, and it would be that kind of an
20 argument. So ultimately, it's 5 to 6 percent
21 or, you know, 5 to 8 or something.

22 Q Although we've heard that that information was
23 prepared to create generalizations about local
24 and regional market values, and it wasn't

1 property specific. So I'm just wondering how
2 can it be helpful in a property specific matter.

3 A Well, no. I mean, it's, I think maybe you're
4 getting the local regional conclusion a little
5 bit crossed with the source of data. I mean,
6 you would always have to ask the question how
7 appropriate are these hundred case studies to
8 the case in question, right?

9 Q Right.

10 A But I think given the breadth and the nature of
11 that database, your chances are pretty good that
12 you would be able to apply that to really any
13 property in New Hampshire. Now, if it's a, you
14 know, a 20-acre equestrian farm or something,
15 it's a little more of a problem. But it's as
16 broad a historical database as you could hope to
17 find anywhere.

18 Q I have a couple of more questions about other
19 topics, but I'm going to turn it back to Mr. Way
20 because I know he has a followup.

21 DR. WAY: Just one followup if I could.
22 Once again I apologize if we've seen this or
23 it's -- we've received a lot of information.
24 But the actual dispute claim process, have we

1 seen a overview of that? Maybe that's a
2 question for Counsel.

3 MR. IACOPINO: Exhibit 193. Applicant's
4 Exhibit 193.

5 DR. WAY: All right. I'll leave it there
6 and I'll look at that. Thank you.

7 PRESIDING OFFICER WEATHERSBY: Director,
8 Muzzey, would you like to continue?

9 DIR. MUZZEY: Yes. Thank you.

10 BY DIR. MUZZEY:

11 Q Speaking of the measurement of when a property
12 is a hundred feet either more or less to the
13 corridor, is that the center of the right-of-way
14 or the edge of the right-of-way?

15 A The edge of the right-of-way.

16 Q Thank you. So thinking of different acreages of
17 properties that may be within a hundred feet or
18 200 or 300 feet --

19 A Excuse me one second. We have to be sure we're
20 talking about -- it's distance of the house to
21 the right-of-way, not the property.

22 Q Okay. Can you explain the philosophy behind
23 using the house as that one reference point
24 versus a different reference point or perhaps

1 multiple reference points?

2 A Well, the literature, I think mistakenly simply
3 because it's more difficult to do, doesn't often
4 use the house. A lot of times they'll use the
5 centroid of the property or a lot of times they
6 use the property boundary. Okay?

7 Q Um-hum.

8 A So they're really talking about distance of the
9 property from the line.

10 Q Right.

11 A But the point of, I'm quite certain that the
12 point of reference of the market is from the
13 house. And we saw this repeatedly in northern
14 New Hampshire, there are a lot of developments
15 which essentially along the access road have
16 200, 300 feet of frontage, but they'll be back a
17 thousand feet, 1500 feet, 2000 feet, right? So
18 these rather skinny rectangular lots. And what
19 goes on in the back of those lots is not very
20 important to the utility or the lot. If the
21 house is within a hundred feet, 50 feet of the
22 road, and so that, and a lot of times that
23 easement is on the back of the lot, but there's
24 no real utility to the back of the lot. There's

1 no paths back there, you know, it's just, you
2 know, vacant land that doesn't add much to the
3 lot. So I think the, you know, the critical
4 thing, and, you know, on those lots the house is
5 quite distant from the right-of-way, and we
6 don't find effects.

7 But when we moved into the more heavily
8 developed and smaller lots, smaller lot portions
9 of the state, then we found that -- and houses
10 got closer to the right-of-way, you know, the
11 effects were more common.

12 PRESIDING OFFICER WEATHERSBY: Can I just
13 jump in on the same subject?

14 It seems to me as though there might be
15 some properties where a particular point on that
16 property is significant to its value. For
17 example, it may be there's a little crest and on
18 the top of that crest you have a beautiful view
19 of Little Bay or the White Mountains or
20 depending on the region, and maybe the house is
21 further back and doesn't have that view. So by
22 using the house there instead of this scenic
23 viewpoint, for lack of a better term, it seems
24 as though that property is being a little

1 shortchanged in your analysis. Is that correct?

2 A It's possible. There's just really no way to
3 deal with it without, you know, if you were
4 doing sort of, spending weeks and weeks on
5 individual properties and getting on the site,
6 the whole assessment of the view would, you
7 know, there's a whole other sort of level of
8 effort. And I really think the issue is again,
9 is the intrusiveness of it on the property.

10 So in your everyday, almost the worst cases
11 where you drive into the driveway and the towers
12 are right over the back of the garage so every
13 time or anyone who visits that on an open house,
14 you know, what they see -- I'd love to just have
15 you look at one photograph of one of our case
16 studies in Danville, kind of the sense of
17 intrusiveness. This is going to get us slightly
18 afield of your immediate question, but that's
19 clearly the first priority is to assess it from
20 the house. And I would say that the kind of
21 issue that you're raising would be then a
22 secondary level of consideration that, you know,
23 unless you assessed every property at that level
24 and somehow tried to parse that out, it would be

1 awfully hard to take account of it
2 systematically. We have a tough enough time
3 figuring out are the existing structures visible
4 and are the new ones going to be visible. So
5 kind of getting to the topography and the
6 vegetation and the views.

7 PRESIDING OFFICER WEATHERSBY: I understand
8 that it's hard to assess and you don't, not
9 necessarily going property by property, but what
10 I'm hearing is it's possible that a property,
11 where the house may be further from the
12 right-of-way but there's a particular view from
13 another portion of the property and that view is
14 affected by the project, there's a change, no to
15 partial and partial to, whatever, meets the
16 other criteria, except for the distance, and
17 that point is particularly important to the
18 value of the property, the value of that, market
19 value of that property could be affected by the
20 Project.

21 A Certainly could be.

22 PRESIDING OFFICER WEATHERSBY: Okay.

23 A Yeah. There's no question about that. And very
24 likely, maybe particularly relevant to the

1 people who live there right now who have their
2 favorite little spots to sit and look, that but
3 that might not -- this was simply an example of
4 intrusion.

5 PRESIDING OFFICER WEATHERSBY: Certainly.

6 A And if you'll indulge me for one minute, you
7 might find this useful because there's a great
8 little story about this one. This is one of the
9 case studies we just did. This is in Danville.
10 And I think this is as impacted a property as I
11 can ever remember seeing. And we got a very
12 good, this is a Case Study B 15 in Appendix H if
13 anyone wants to take a look at it, but the
14 listing broker told the owners that you've got
15 an issue here with these power lines, right? So
16 what we're going to do is we're going to be very
17 straightforward in our listing and advise agents
18 to look at this property on Google Earth first,
19 tell them about the power lines, and don't waste
20 your time if they're not going to look at it and
21 we will also mark it down, and we'll make it a
22 bargain.

23 And so they, so she listed it at 329-9.

24 329,000, let's call it 330, 330,000. Peter

1 Stanhope appraised it, and this is an easy house
2 to appraise in Danville. There are a whole
3 bunch of them. He had it at 253. Okay? So she
4 listed it at, we'll call it 230, which is about
5 23,000 less than market value of that kind of
6 house at that time, and this is a recent sale,
7 2017.

8 So she listed it on February 28th. The
9 next day they had 8 showings, competitive
10 offers, it was bid up, sold for 335. Okay?
11 Five percent discount. That's just gives you
12 some perspective on there are people out there
13 in the market who have a different orientation
14 for these things than you might think.

15 PRESIDING OFFICER WEATHERSBY: Did you say
16 335 or 235?

17 A 335.

18 PRESIDING OFFICER WEATHERSBY: It was
19 appraised at 230?

20 A It was appraised at 353. Listed at 330.

21 PRESIDING OFFICER WEATHERSBY: Okay.

22 A So it got bid up, multiple bids, got bid up by
23 5,000 and the buyer was tickled because he got a
24 bargain, got it for five percent less than

1 market so --

2 PRESIDING OFFICER WEATHERSBY: Thank you.
3 Director Muzzey, would you like to continue?

4 DIR. MUZZEY: Thank you.

5 BY DIR. MUZZEY:

6 Q I also had a question following up on what we
7 were just talking about about almost the seeming
8 bias of small lots versus larger acreages.
9 Thinking of, you had mentioned a riding facility
10 or we saw a farm this morning, and that in your
11 studies has one point of reference, wherever the
12 farmhouse is or the house at the riding
13 facility.

14 A Right.

15 Q Where if that farm or a comparable-sized acreage
16 was subdivided up, you could potentially have
17 multiple points of reference because there are
18 more houses there.

19 A There would be, right.

20 Q Right. So it just seems like that larger
21 acreages are then a bit underrepresented in the
22 methodology that was used for the current
23 studies study if we go by acreage point of view
24 because all we seem to really be counting here

1 are houses, not acreages.

2 A Well, that sale will be compared to other
3 similar acreages. Okay? So if we have a, if
4 one of our case studies is, as there are, there
5 are a lot of 50-acre, 40-acre, 30-acre, 20-acre
6 case studies that sold with transmission lines
7 on them, okay? And the appraisers then went out
8 and found other 20-, 30-acre parcels,
9 comparables, right? That sold at the same time
10 without transmission lines and they came to a
11 conclusion that 20-acre parcels, you know,
12 outside of wherever, Easton, are going for this
13 and that's what this one sold for, right? So
14 it's an apples to apples. So I mean you
15 definitely have to account for the acreage, but
16 I don't think there's any bias there.

17 Q Okay. Thank you. Question about the intensity
18 of the corridor development. I thought I heard
19 you say that in the case studies on the
20 Seacoast, two out of four of them the intensity
21 of the corridor doesn't matter. Do you remember
22 that comment this morning and what you may have
23 been referring to?

24 A We were bouncing around a little bit on case

1 studies, but the point was basically do low
2 voltage transmission lines or low voltage
3 distribution lines, excuse me, okay? 34.5 kV
4 lines affect value kind of in a similar way to
5 115s or 230s or whatever. And I simply offered,
6 I don't have a controlled experiment or table on
7 this, but I offered that we had four cases
8 where, four case studies where the line in
9 question was a distribution line, 34.5 kV line,
10 and in two of those four we found a price
11 effect. So we found price effects in the low
12 voltage lines as well as in the high voltage
13 lines, and there doesn't seem to be in the data
14 any increased vulnerability associated with the
15 higher voltages than the lower voltages. The
16 issue seems to be a power line in a corridor
17 with an easement, irrespective of the voltage.

18 Q Thank you for that clarification. And then my
19 final question has to do with some things we
20 heard this morning about properties where the
21 setting may be particularly sensitive attribute
22 to the property. We heard about a farm but also
23 historic properties came up, and we also heard
24 that 70 percent of the corridor in Durham goes

1 through Historic Districts.

2 Could you describe a type of study
3 comparable to what you've done for this project
4 that would use the historical designation or the
5 historical aspects of a property and judge the
6 value of how the market value, of how the market
7 value may change? I'm just wondering if it's
8 possible to quantify the difference between a
9 historic property and then a nonhistoric
10 property.

11 A I mean, in the first instance you'd have to
12 focus on that question. Forget about
13 transmission lines for the time being, but
14 simply look at 200-year-old Colonials in
15 Historic Districts versus not in Historic
16 Districts, and I think most people understand
17 that antique residences have their plusses and
18 minuses. So you'd have to study that question
19 first.

20 Q Um-hum.

21 A And then you'd have to study, okay, once you
22 understood that, is there a greater sensitivity
23 to this particular kind of what we call an
24 externality to a historic structure versus a

1 nonhistoric and that would require case studies
2 of both types. So I mean you can conceive of
3 how you'd do that. As a practical matter, I
4 doubt if you could do it. You know, you just
5 wouldn't have enough observations, enough
6 comparability, but I mean that's how you'd have
7 to approach it.

8 Q What do you mean you wouldn't have enough?

9 A You'd have to have enough sales of historic
10 properties in Historic Districts with
11 transmission lines.

12 Q Sure.

13 A Versus sales of historic properties without
14 transmission line, and, you know, and do case
15 studies on that, and if there was an effect, and
16 the effect would have to be big enough that it
17 would show up in the data. I mean, there could
18 be some, you know, small effect, but with the
19 kind of three or four or five case studies it
20 would be very hard to discern, I think. I doubt
21 if you could do it.

22 Q So you obviously don't know of a study like that
23 that's been done.

24 A Correct. I'm quite confident one hasn't been

1 done.

2 Q Okay. Thank you very much.

3 A Sure.

4 PRESIDING OFFICER WEATHERSBY:

5 Mr. Fitzgerald?

6 MR. FITZGERALD: Thank you.

7 **QUESTIONS BY MR. FITZGERALD:**

8 Q Good afternoon.

9 A Good afternoon.

10 Q Are you familiar with the concept, I've heard it
11 many times here, I assume it might be national
12 as well, but view tax, an appraisal is enhanced
13 by, if you have the same property and the same
14 you know, similar properties and similar size
15 lots on ones on top of a mountain and it has a
16 beautiful view and one is locked in and
17 therefore, the one with the view has a greater
18 value?

19 A Sure. There are definitely view premiums.

20 Q Right.

21 A That's been studied a good deal.

22 Q Okay. So in your experience, you know, your
23 conclusions seem to be focused on properties
24 that were very close to a power line, but in

1 your experience if you have a property that has
2 a view, has a significant view, and that view is
3 impacted by a power line, even though it might
4 be hundreds of feet away or more, does that tend
5 to have much of an effect on that view?

6 A Okay.

7 Q That evaluation?

8 A I mean, that question has come up frequently.

9 Q Good. I'm glad to hear that.

10 A If we could just look at Figure 1 being for a
11 second in my Supplemental Testimony, page 8.
12 Our idea was to start with the properties that
13 were close, that had homes closest to the
14 transmission lines because those are the ones
15 most likely to be Figure 1.

16 MR. BISBEE: Next page.

17 A Page 8? Yes. Can you read that?

18 Q There we go.

19 A Super. So I had no idea what this might look
20 like at the outset. And what you can see there
21 is that even though the properties all were
22 either adjacent to a transmission line or
23 encumbered by a transmission line, the houses
24 were spread and went out -- all we show here is

1 450, but in fact some of the houses were as far
2 away as a thousand. So but the effects were
3 uniformly found in the first two bars there, you
4 know, in the first hundred feet, with the
5 exception of a couple in the next, you know,
6 106, 110.

7 So frankly, I was expecting that those
8 effects would go out further, and if they went
9 out even, if they were fairly randomly spread
10 across that whole distance, it would have to go
11 out even further, but there just wasn't any
12 basis here.

13 The other thing I would offer is that
14 visibility has been tested quite a bit in the
15 literature, in the statistical literature, and
16 visibility simply doesn't show up after
17 proximity has been accounted for, and the two
18 are correlated, but visibility alone, there's
19 simply no evidence that visibility at a distance
20 impacts value. I mean, we've got two
21 person-years of effort in these case studies
22 right now. We've been looking hard from top to
23 bottom of the state, and we just haven't found
24 any effects at any distance from a transmission

1 line.

2 So the existing resident would be sensitive
3 to that view, and perhaps some potential buyers
4 would say God, this is a great house in the
5 right place, but I'm not that keen on the view.
6 I can see a tower over there. But apparently,
7 there aren't enough of those to have any impact
8 on the market value. So there just isn't any
9 case to expand it. You know, we were already
10 extended. I kind of thought we might. But
11 again, you look at that and I think we're, you
12 know, we've gone out as far as we need to.

13 Q Thank you. Bear with me. This is the first
14 time I've been exposed to this kind of work and
15 evaluation.

16 When I read your methodology it says each
17 of remaining sales was the subject of a case
18 study that had four comparables; that facts of
19 the sale, the physical relationship to the HVTL,
20 interviews with transaction participants, and
21 appraisal evidence. Was your primary method of
22 determining whether there had been an impact
23 based on the interviews? In other words, people
24 saying I, because, just as an example, my

1 father-in-law is selling his house, and he
2 purchased, he received an offer this week, it
3 was at the value of the house, but then the
4 people wanted \$10,000 in closing costs paid. So
5 do you evaluate those kind of factors and that
6 goes into the facts of the transaction so you
7 come up with an actual value based on how the
8 transition, because they can be exceedingly
9 complex, obviously. So that's my first
10 question.

11 A Yes. Those things are all relevant, and I think
12 I indicated earlier, the interview is really
13 important.

14 Q Yes.

15 A But so is it physical location, you know, are
16 the lines visible. Because we have some cases
17 where the lines are invisible, the broker says
18 the lines had absolutely nothing to do with the
19 sale, but the sale comes in under the appraisal.

20 So in any event, you have to consider all
21 of the evidence. Sometimes the evidence is
22 contradictory and you just can't, it's just flat
23 contradictory, and you can't come to a
24 conclusion one way or the other. We just set

1 those aside, okay, and there's no particular
2 pattern there, and we just set them aside.

3 So we actually did 120 case studies, of
4 those 20 are indeterminate in my opinion, and I
5 think there would be a fairly high level of
6 acquiescence by other third parties and my
7 colleagues that looked at it as well. We've got
8 a hundred where the evidence is consistent, and
9 you -- those are the ones that we base our
10 opinion on.

11 Q So, for instance, a house like you showed the
12 example there, the dramatically impacted one,
13 but you mentioned that it had been, essentially
14 buyers had been prescreened, potential buyers.
15 But your conclusion on that one was, would still
16 be that there was an impact because --

17 A Absolutely.

18 Q -- because it stood below the assessed value?

19 A It was a five percent impact on that sale, no
20 question about it. And the interview supported
21 that, the appraisal supported that and the
22 physical, pretty clearly the physical
23 relationship of the property to the transmission
24 line supported that as well. So that was a no

1 brainer.

2 Q When you refer to interviews, you're, basically,
3 basically people are telling you this is the
4 reason, this is the factor that impacted the
5 sale? The fact that there's a high voltage line
6 had some impact on the sale? Is that --

7 A Yes. Different interviews proceed, you know,
8 differently, and you'll find if you were to look
9 in the Appendices and actually read the
10 interviews at length, some of them are very
11 forthcoming and some of them are pretty brief,
12 but the key questions are did the transmission
13 lines affect your listing price. Okay? Because
14 that's your starting point. If they discounted
15 the listing price and then said no, we got what
16 we listed it for but you've already got a
17 built-in discount into the listing price, then
18 clearly there's an effect. And then we asked
19 what was the traffic and then what did, you
20 know, people talk about it? Did it appear that
21 there was any, was it an item of negotiation?
22 Did it influence the transaction? And you get a
23 variety of answers. I mean, sometimes it's a
24 very resounding yes, it, did and other times

1 it's kind of iffy and other times it's no, it
2 didn't have anything to do with the transaction,
3 never mentioned, never mentioned.

4 Q Okay. Do you find any correlation with property
5 value? In other words, is there more of an
6 impact for a half a million dollar property
7 versus a \$250,000 or half a million versus a
8 \$1,000,000 property? Do you see that?

9 A There's some evidence of that in the national,
10 you know, in Seattle, for example, there's some
11 work that we've done statistically where we did
12 not find that. I'd say the evidence of that is
13 mixed. The case studies, you don't have enough
14 observations to begin to parse it by income
15 range, and I didn't, I don't think there's a
16 trend in there. I actually never arrayed it
17 quite that way. I mean we could, but I don't
18 believe there's any evidence of that in the case
19 studies that were done to date.

20 Q Thank you. That takes care of my questions.

21 PRESIDING OFFICER WEATHERSBY: Mr. Schmidt?

22 **QUESTIONS BY MR. SCHMIDT:**

23 Q Good afternoon. How are you today? Very quick
24 couple of answers. I'm not familiar with the

1 guarantee claim that you alluded to that you
2 experienced on other Projects. Can you explain
3 briefly the criteria for that?

4 A Yes. The criteria were basically derived from
5 our research said that properties that were
6 located, that had homes located within a certain
7 distance of the right-of-way properties that
8 were encumbered, properties that had visibility
9 of the new structures would be eligible, and
10 that then in the event of a sale, an appraisal
11 could be contracted which would appraise that
12 property in the absence of the transmission
13 line, same way we do our retrospective
14 appraisals so doing comparable sales that aren't
15 affected. And to the extent there was a
16 difference that would be a basis for
17 compensation.

18 Q So a simple before and after appraisal?

19 A No. It's just the after. The before and after
20 turns out to be very difficult to operationalize
21 because, again, there's a time change and
22 changes in the property, all kinds of things.
23 So this is, so the property is built in 2020,
24 you sell the house in 2022, and you think you

1 got less for it because of the Project. Okay?
2 You hire an appraiser, the appraiser appraises
3 your property effective 2022, using comps that
4 don't have any transmission line influence, you
5 sold the house for 500,000, he comes in and says
6 absent transmission line it's 550.

7 Q Okay.

8 A That's the basis for a claim for \$50,000. If it
9 comes in at 490, you got a good deal.

10 Q And was there a time limit on that appeal?

11 A I don't know that that agreement was ever
12 formalized. It was, I think, in the proposal
13 form. In the proposal that I recall I think
14 there was a five-year time --

15 Q Five year?

16 A -- suggested, but again, it was a preliminary
17 proposal subject to negotiation with the
18 Committee.

19 Q Sure. Sure. And you mentioned that some of
20 your field trips you had an appraiser from
21 Amidon, I think it was?

22 A That's right.

23 Q Did they or any other local appraiser review
24 your review, review any of your analytics just

1 for a gut check for New Hampshire?

2 A Yes. All of our appraisers, all of the
3 appraisals, I should say, were done by local New
4 Hampshire appraisers. That is, the original,
5 there were 58 appraisals done originally. Of
6 those, 50 were done by two appraisers, two local
7 appraisers. Mark Correnti actually did most of
8 the field work, but he's a licensed appraiser
9 and Brian Underwood also cosigned the appraisal.
10 He's a local New Hampshire appraiser. The other
11 eight original appraisals were done by Peter
12 Stanhope who is a well-regarded local appraiser
13 as well.

14 So but in addition to those appraisers I
15 had other appraisers helping me doing graphics,
16 downloading GIS materials, creating maps, and
17 working with me to try to evaluate visibility.

18 Q And they were all familiar with the markets?

19 A They didn't really have to deal -- they weren't
20 dealing with the market issues. They were
21 dealing with maps and visibility. All of the
22 market issues were handled by either Stanhope,
23 Correnti or Underwood.

24 Q I think that's all I have. Thank you.

1 PRESIDING OFFICER WEATHERSBY: Ms. Duprey?

2 MS. DUPREY: Thank you.

3 **QUESTIONS BY MS. DUPREY:**

4 Q There was some questions about concentration
5 easements and your work, and so I just want to
6 confirm this line was constructed somewhere in
7 the early 1950s, the existing 4.5 kV line? Is
8 that correct?

9 A That's my understanding.

10 Q Do you know when the conservation easements were
11 granted? Were they granted subsequent to the
12 construction of that line or before it? Do you
13 know?

14 A I really can't speak to that definitively. I
15 believe the easements were all pre-existing.
16 That is, the right-of-way's were, preexisted the
17 conservation easements, but --

18 Q Right, the right-of-ways.

19 A Right. So the easements were subject, I'm
20 sorry, the conservation easements were subject
21 to the pre-existing transmission line easements.

22 Q Okay. And it's been about five years since I
23 drafted a conservation easement so my
24 remembrance of them is very sketchy, and I can't

1 recall, so under the normal circumstances, am I
2 right that the private property owner continues
3 to own the fee but an easement is granted to a
4 local conservation group or a national
5 conservation group or whatever but the fee is
6 still normally held by the private party,
7 correct?

8 A Yeah. Yes. Right.

9 Q And so the individual that owns the fee is very
10 constricted in terms of what use they can make
11 of the property, like farming or for passive
12 uses, if you will, correct?

13 A Right.

14 Q Is one of the exceptions of things that the fee
15 owner is allowed to do to grant utility
16 easements? I can't recall.

17 A No, I think --

18 Q Is that not something you would know?

19 A Well, it's not something that I would know. I
20 think in this case those utility easements all
21 preexisted the conservation easements. I've
22 been, it's been suggested to me, but --

23 Q Right, but this is a different question, and if
24 you can't answer it, I understand. I'm just

1 wondering --

2 A It would depend. I mean, hypothetically, well,
3 it would all depend on the specifics of the
4 rights that were granted in easements.

5 Q Right. I got that. I'm just looking for sort
6 of a general course of behavior, and I'm going
7 to surmise that you don't really know.

8 A That's right.

9 Q All right. Today we've talked about the, you've
10 talked about the change in value for properties
11 related for one of your factors by, or actually
12 not from one of the factors, you talked about it
13 in terms of the distinction between the
14 difference in voltage. You've said, I think I
15 understand you to have said that you didn't
16 really see a difference in change of property
17 value based on whether it was 34.5 or 115 volt,
18 and so I want to put this question to you more
19 directly because I feel like that's not really
20 answering my question anyway. I think you think
21 you're answering it, but I'm not sure you really
22 are so I'm going to try and pin you down here.

23 I want to clearly understand the difference
24 in appearance between these 34.5 kV wooden

1 40-foot poles and the 115 foot
2 steel-of-some-sort towers with three arms on
3 them. Are you saying that the average person
4 does not see a difference in the value of their
5 property based on whether they can see one of
6 those versus seeing the other one?

7 A No.

8 Q You're shaking your head, but can you just state
9 what you said?

10 A It's tricky. It obviously is, I mean, you would
11 recognize a difference obviously. I would
12 recognize a difference, and certainly somebody
13 who will be next to the existing right-of-way
14 will notice a difference between 40-foot pole
15 and a 85 foot pole, right? I mean they're
16 different. They're real different.

17 Q Right.

18 A But that's not the question.

19 Q No. It's not the question.

20 A It's a question of an existing resident, right,
21 who is now living next to the 40-foot pole and
22 is going to be potentially living next to an
23 80-foot pole, and says, you know, I'm not very
24 happy about that or I'm going to see more of it

1 or it's going be more intrusive on my property.

2 The question I'm addressing is does the
3 market respond any differently, other things
4 equal, to a property with a 40-foot pole on it
5 and a hundred foot wide right-of-way and a third
6 of the property encumbered to an otherwise
7 identical property, a third of it is encumbered,
8 100-foot right-of-way with an 80-foot structure
9 on it.

10 Q Right.

11 A And, you know, a priori, I don't think I would
12 have an opinion on that. Or a priori without
13 looking at the evidence, I probably suspect that
14 it would. But when you look at the evidence,
15 you don't seem to find any difference in the way
16 the market responds to those two. And I think
17 the reason is that there's some people who
18 simply do not want to buy a property that is
19 encumbered and that has a power line on it.

20 Q Right. It doesn't matter to me what your reason
21 is, while I appreciate the explanation. I think
22 that you answered the question.

23 A Okay.

24 Q Which is that the market doesn't respond

1 differently between a 40-foot pole and an
2 80-foot, and I just want to make sure.

3 A That's been our experience.

4 Q Okay. Great. Thank you.

5 PRESIDING OFFICER WEATHERSBY: Can I ask a
6 clarifying question?

7 MS. DUPREY: Yes.

8 PRESIDING OFFICER WEATHERSBY: Does that
9 analysis also hold true if the structure that's
10 being looked at is wooden, monopole, a lattice
11 tower, I mean, type of structure also doesn't
12 affect it or does it?

13 A Well, we put up the pictures of the, of our
14 corridor number 1, the Phase II corridor. I
15 mean, that is a big corridor with some very
16 impressive structures, and, again, we just
17 didn't see any evidence of it. So I don't, you
18 know, I know I'm repeating myself, but all I can
19 say is that I think that the segment of the
20 market that's looking for that mother-in-law
21 apartment that happens to have the power line
22 easement apparently isn't sensitive to what the
23 nature of the infrastructure is in the
24 right-of-way. You just don't see evidence of

1 that. And you know that's all I can, all I can
2 tell you.

3 PRESIDING OFFICER WEATHERSBY: Director
4 Muzzey?

5 DIR. MUZZEY: Just to follow up to that.
6 So I understand what you mean by saying that
7 there's a group of people who will never get
8 anywhere near a power line no matter what
9 intensity, and then for the buyers left it's
10 really all the same as whether or not the power
11 line is there or not. Has there been any study
12 of whether that smaller number of buyers
13 interested in a property makes a difference?

14 A Yeah. I mean, that's, I think, why we find that
15 for this certain group of properties there is an
16 effect, right?

17 MS. DUPREY: Because --

18 A Because when it gets sufficiently intrusive,
19 apparently enough people get filtered out of
20 that market that you actually find a price
21 effect.

22 Q Okay. Thank you.

23 QUESTIONS BY MS. DUPREY:

24 Q But not between 40 and 80. It's whether there's

1 anything or nothing.

2 A Right.

3 Q Okay. I just want to be certain about that. I
4 thought we had an answer and I sort of felt like
5 it was slipping away.

6 Okay. I want to talk for a moment, I just
7 have two questions left. Your chart that showed
8 no effect to partial effect to clear view of the
9 tower, and when you found that a property was
10 going to move from the none to partial or the
11 partial to clear, I'm assuming you did not take
12 into account any offered mitigation of plantings
13 or whatever. It was just the raw situation.

14 A That's correct.

15 Q Thank you. And then lastly, you were asked if
16 you had done viewshed modeling. I'm not really
17 sure I know what viewshed modeling is and could
18 you explain what that is?

19 A Well, it's not my area of expertise either, and
20 it's a term of art so I'm really not the one to
21 answer it. I presume it's things like photo
22 simulations --

23 Q Okay. I'm not looking for presumptions though.
24 I think you answered that. It's not something

1 you're familiar with; therefore, does that mean
2 that it is not normally utilized in the type of
3 study that you are performing here?

4 A Correct. Not in the sort of study that I carry
5 out, that's correct.

6 Q Thank you.

7 PRESIDING OFFICER WEATHERSBY: I think I'm
8 left. David?

9 MR. SHULOCK: No.

10 PRESIDING OFFICER WEATHERSBY: I have a few
11 followup questions.

12 **QUESTIONS BY PRESIDING OFFICER WEATHERSBY:**

13 Q I was interested in your testimony earlier when
14 you said that you had actually considered the
15 concrete mattress visibility and its effect on
16 the properties. There's a lot of information
17 here, but I didn't see that in your reports or
18 Prefiled Testimony. Is that contained in there
19 somewhere?

20 A No. I didn't address, you know, each individual
21 property. What I did in the case of the
22 Intervenors look at their testimony and look at
23 the maps. So I gave some extra scrutiny, if you
24 will, to the Crowley property and to the two

1 Miller properties and to the Fitch property, to
2 the Heald property, and the Frizzell properties.
3 And it was in that context that I looked at the
4 concrete mattresses and thought about what the
5 potential implications might be.

6 Q And would you use the same analysis for those
7 properties, the concrete mattresses being the
8 structures and then applying the three factors
9 that we talked about?

10 A Yes. I think so. Right.

11 Q And did you follow that analysis and come up
12 with a negative answer or you didn't really do
13 that analysis?

14 A No. I was prepared to discuss it to the extent
15 that it arose, but there's no formal conclusion,
16 again, on a property specific basis. It seemed
17 to me that for your purposes what I was trying
18 to do is get my arms around what's the dimension
19 of the property value effect, how many are there
20 out there right now that might be vulnerable to
21 property value effects and how that might be
22 changed by the Project, but I, in my testimony,
23 wasn't trying to come to the grips with the
24 situations of individual property owners.

1 Q Okay. But it's your, is it your opinion that
2 there will be no property, market value effects
3 on property as a result of the presence of the
4 concrete mattresses?

5 A I'm sorry?

6 Q I'm sorry. I'll get closer. Is in your opinion
7 that there will be no property market value
8 effect on the property, any property, as a
9 result of the presence of the concrete
10 mattresses?

11 A You know, again, I can't offer a prediction. I
12 think what I said is I doubt it, and that's kind
13 of as far as I would go. It doesn't appear to
14 me that, you know, it's going to depend on what
15 they look like, it's going to depend on market
16 conditions. There are a whole bunch of things
17 that would impinge on it eventually, but I think
18 once it's weathered and has some creatures
19 living on it, most of the water front property
20 I'm familiar with has, you know, there are docks
21 and there are various intrusions into the bay,
22 and it just doesn't strike me as something that
23 would intrude on the property at a level that
24 would materially affect its market value.

1 Q Can there be a change in the property's value as
2 a result of how the structures in the corridor
3 that are on that property, how they affect the
4 use of that property? You know, say I used to
5 park my mobile home, RV underneath the, in the
6 right-of-way, and now I can't do that anymore.
7 Or I had, there was a ballfield and now the kids
8 can't play soccer there because there's a big
9 H-Frame. Can there be a change in the use of
10 the property as a result of the change in
11 structures?

12 A I mean, there could be certainly,
13 hypothetically, and that's again I think where
14 you get to the, you've got the current use of
15 the property and then you've got the use of the
16 properties that might be considered by someone
17 looking at it which might be entirely different,
18 but that would be a property specific kind of
19 consideration that I wouldn't try to, I really
20 don't have much to add to that.

21 What I'm really saying is that there's a
22 group of properties that have changed market,
23 have a chance of changed market value due to
24 their characteristics as indicated by the

1 research, but it's not, it doesn't get down to
2 that level of consideration.

3 Q It's possible that you can do a property
4 specific analysis of this.

5 A Yeah, I think someone who is, yeah, I mean it's
6 certainly conceivable. Sure.

7 Q And I know you indicated that you took into
8 account in doing your analysis the change in the
9 vegetative clearing based on the plans that were
10 put before you about how that would affect the
11 property owners' view to the corridor, but was
12 there any analysis about vegetation clearing as
13 a result of this Project that affected other
14 views? You know, maybe they now can see the
15 highway or they're now looking right into their
16 neighbor's bedroom window or something. It was
17 all directed towards the corridor.

18 A That's right, yeah, and structures in
19 particular.

20 MS. DUPREY: Madam Chair, I just wanted to
21 follow up on your previous question?

22 PRESIDING OFFICER WEATHERSBY: Yes.

23 MS. DUPREY: I'm a little confused by this.
24 I mean, people who have granted an easement have

1 retained certain rights to the property and
2 given up other rights. So if you had a right to
3 have a ballfield under the power lines, you
4 would continue to have that right after the new
5 lines were up; and, conversely, if you didn't
6 have a right to it, and the power lines went in,
7 and now you could no longer maintain what wasn't
8 an approved, if you will, use, that would affect
9 the property value? If you were doing something
10 that you didn't have the right to maintain under
11 the power line, and then a different kind of
12 power line went in as is happening here, that
13 would reduce the value of the property when you
14 couldn't do it any longer?

15 A Presumably the permissible, the property rights
16 that were surrendered are the same, right?
17 They're not going to change. Are you talking
18 about impermissible uses?

19 MS. DUPREY: Yes.

20 A That you can no longer get away with?

21 MS. DUPREY: Well, if they're not
22 impermissible, they're going to be able to
23 continue, correct?

24 A If they're not impermissible.

1 MS. DUPREY: So if you have the right to do
2 something under, across the easement?

3 A Right.

4 MS. DUPREY: You're going to continue to be
5 able to have the right to do that.

6 A Right.

7 MS. DUPREY: The utility doesn't have the
8 power to take that away from you, correct?

9 A I think as a general proposition. I'm not an
10 attorney, but, you know, as a general
11 proposition, that's true. Now, there may be a
12 practical issue in that you wanted, your soccer
13 field used to be 110 yards long and now maybe
14 it's only 100 yards because of the way the
15 structures are arranged or something, but in
16 general, that's correct. The permissible uses
17 will remain the same.

18 MS. DUPREY: Okay. Thank you.

19 PRESIDING OFFICER WEATHERSBY: Mr. Way?

20 DR. WAY: Just to follow up on that, those
21 permissible uses, a lot of times those aren't in
22 the easements, but those are agreements that are
23 reached like, say, with Eversource, are they
24 not? About what might be a permissible use

1 under the power lines? And I think that's sort
2 of what she's getting to is that if you then do
3 a design that takes away that use, whether it
4 could be like I remember previous dockets about
5 a ballfield or a horse farm or something like
6 that, but is that typically not in the easement
7 itself, that's, I don't know if it's an MOU or
8 it's some sort of document agreement.

9 A Yeah. I mean --

10 DIR. WAY: And I think what, and tell me if
11 I'm wrong, I think what we're trying to get to
12 is if there's any conflicts in terms of what's
13 currently being done in the right-of-way that
14 after this is done won't be able to be done in
15 the right-of-way. And I don't know if you can
16 answer that.

17 A Well, that, again, I guess the one example of
18 that that I'm aware of is the Heald property
19 where she was using it apparently as a nursery,
20 and so that would be a, and again, we're outside
21 my area of expertise here in terms of the fine
22 points, but it wouldn't surprise me if that was
23 a permissible use, right? That you can grow
24 plants, but, again, I don't know that for

1 certain, but that would be a good example of
2 that kind of a conflict, and it might have to be
3 taken into consideration in a property specific
4 assessment and appropriately so, but that, our
5 analysis would never rise to that level of
6 specificity.

7 DIR. WAY: I mean, a lot of times the
8 permissible uses just evolve over time, and it's
9 just generally accepted, I think. You know,
10 cars start parking underneath the lines in the
11 right-of-way, things get inadvertently, but it
12 may not be oftentimes a formal arrangement.

13 A Well, better not get built.

14 DIR. WAY: Shouldn't.

15 A No, I mean --

16 DIR. WAY: I don't think so in this case,
17 but I mean, if something, a shed is built and it
18 overlaps or it's in the right-of-way, but I
19 guess my point is a lot of times these
20 permissible uses are just things that evolve
21 over time.

22 A It may well be. Some might continue and some
23 might not, I guess, but in any event, that
24 wouldn't be something that we would have looked

1 at.

2 DIR. WAY: All right. Thank you.

3 BY PRESIDING OFFICER WEATHERSBY CONTINUED:

4 Q Changing gears a little bit here, am I correct
5 in your analysis the visibility of clear to
6 partial, none, all that refers only to the
7 structure itself. If you have a view of the
8 lines, the separators, that is not considered
9 any view. That's your only view. You don't see
10 a pole.

11 A That's right.

12 Q And then what about being near an access road or
13 a substation or some other part of the project
14 other than the pole. Did you do any analysis in
15 that regard?

16 A Yeah. I mean, that was an issue that has been
17 raised previously and certainly legitimate.
18 Here I think we were sensitive to the
19 transmission structures, as we've done a lot of
20 up and down. We don't have substation issues.
21 The Madbury substation is isolated from
22 residential development, the Portsmouth
23 substation is isolated.

24 So we had, basically, the transition

1 structures that were an object investigation
2 were the one on the border, on the western
3 border of the Newington Historic District, the
4 one on Frink Farm, and then the one on the
5 Getchell property, what was the Getchell
6 property which the Millers responded to to some
7 extent.

8 I think on the Frink Farm property the net
9 effect of the Project is probably positive. You
10 know, you're getting rid of many structures,
11 you're getting rid of the overhead lines, and
12 particularly on the Hannah Lane properties,
13 those properties are very heavily impacted by,
14 are very heavily impacted by the existing line,
15 and this is going to be a great deal for them, I
16 think so the net effect there is positive and
17 that's something that I did look at.

18 And the transition structure on the
19 Getchell property is close to the garage on the
20 Jeffrey and Vivian Miller property, but it's,
21 you know, it's along their driveway, but it
22 doesn't have much impact on their home, I don't
23 think, and there are two existing structures
24 that are closer to their home which are going to

1 disappear. So I'm not sure but what the net
2 effect there may be positive as well. So I did
3 look at those. Those are the only ones that I'm
4 aware of along the lines that you're suggesting.

5 Q Did you happen to look at the marshalling yard
6 area in Barrington or Lee? I think it's
7 Barrington?

8 A I'm sorry, ma'am?

9 Q The marshalling yard where they're assembling
10 the equipment and trucks and things.

11 A Are you talking about during construction?

12 Q Yes.

13 A No.

14 Q Okay. At the risk of beating a dead horse here,
15 I understand the "no view" is obvious. The
16 "clear view" part is obvious. I'm struggling
17 with "partial view" of structures because there
18 seems to be broad range of partial view, and
19 what I'm hearing you say is that it doesn't
20 really matter how great the view is if it's
21 partial. So there can be a slight partial view
22 and there can be a very grand partial view. As
23 long as you don't see the entire structure, it's
24 still partial. I'm wondering whether it would

1 be more precise to have categories of minimal
2 partial view and more maximum -- it's such a
3 broad range. I struggle with the fact that
4 somebody can have such a change in their view,
5 but it still falls under the same category and
6 is therefore filtered out your analysis. Could
7 you address that for me, please?

8 A I don't disagree with you. Next time I might
9 add another one. Because you've got a barely
10 visible category which is there's no
11 unobstructed view at all, but through the veg
12 you can pick up that vertical element, but there
13 are lot of tree trunks in there and a lot of
14 other vertical elements. Very, very little
15 intrusion really on the property, and that's a
16 pretty common, you know, leaf-on it's almost a
17 nonissue, leaf-off you can see it, but again,
18 it's pretty much of a nonissue.

19 And then you've got kind of a partial, more
20 significant partial where part of the structure
21 is unobstructed so a little piece, it's like
22 that one photo that Mr. Fitch had up or somebody
23 did. I guess Counsel for the Public had it up.
24 A little piece of the structure is peeking over

1 the top of the trees, but you've got an
2 unobstructed view of it. That's kind of a
3 different category. But anyway. We started out
4 with the three and stuck with it. But I don't
5 disagree with you. It's a wide range.

6 Q So kind of cutting to the chase here, the bottom
7 line, you believe there's four properties within
8 100 feet of the right-of-way that will have
9 increased visibility of the Project when it's
10 built; is that correct?

11 A Changed visibility of the Project.

12 Q And each of those four may, has roughly a 50
13 percent chance of having its market value
14 affected; is that correct?

15 A That's right.

16 Q And those are the only properties that are, in
17 your analysis, are likely to have their market
18 value affected by this Project. Is that
19 correct?

20 A Right. I just frame it slightly differently,
21 but that is the bottom line.

22 Q Okay.

23 A I just frame it because I look at the 14 that
24 currently exist and say okay, based on that case

1 study research, how many properties do we have
2 here that look like they could be affected by
3 transmission lines in general, okay? And
4 basically within a hundred feet there are 14.
5 Okay? Which -- and then what's the impact of
6 the -- and so those already have a chance of
7 being affected, and then what's the effect of
8 the Project on those. It's not very great.
9 There are four properties that will have
10 enhanced visibility.

11 Now, any of those 14 could have an effect.
12 We're saying that half of those 14 will have an
13 effect. Or, you know, that would be what we
14 would expect. So seven of those would have an
15 effect, but lot of that would be due to the
16 existing condition. So the incremental effect
17 of the Project is fairly small on that. But
18 we're saying there are 14 properties out there
19 right now -- I mean, some of the --

20 Q I'm just going to stop you for a second to make
21 sure I understand. Are there 14 properties that
22 likely have an effect or four?

23 A Well --

24 Q How many properties are likely?

1 A Look at Table 8 for a second.

2 Q What page, please?

3 A This would be worth as a closing salvo here.

4 MS. DUPREY: What page?

5 A Okay. But now we're before construction here,
6 right? Okay. So this is the existing condition
7 out there, and what we're saying is that there
8 are 14 properties total within, with houses
9 within a hundred feet, and of those, 12 have
10 partial or cleared visibility.

11 So based on the case study research, you
12 know, my opinion, that maybe half of those
13 should they be sold over the next while, that
14 maybe half of those would suffer a market value
15 effect. That those properties are affected.
16 They would be discounted in the market. I don't
17 know which ones, but roughly half of them so
18 then turn the page -- let me just finish. Maybe
19 it will help.

20 So then turn the page, okay? Well, there's
21 still 14 properties total, but now 13 of them
22 have either partial or cleared visibility and in
23 fact, there are three more now that have clear
24 visibility, okay? The chances of those having

1 an effect goes up a little bit.

2 So the Project has had some impact on
3 increasing the chances for market value effects,
4 but the number of properties for which there's a
5 change is, as you said, is four, but I sort of
6 keep it in that context. So, you know, the
7 probability has gone up a little bit for those
8 four, but it was pretty high anyway. So yeah,
9 so there's a small effect of the Project in
10 increasing the chance of a market value effect.

11 Q And do we have a list of what these 14
12 properties are? Their addresses of property
13 owners?

14 A Right.

15 Q Is that in one of the tables?

16 A I guess you would, the answer is they're in the
17 individual tables which I could, starting with,
18 starting with Table 3.

19 Q I think Counsel is going to help you out.

20 MR. NEEDLEMAN: I think it's Appendix D.

21 A Yeah, you can get them out of that table. It's
22 just they're not grouped, but -- right. So if
23 you just, in Appendix D, if you could just go
24 down and look for proximity of residence to

1 right-of-way and distance so you see the first
2 one there is 80 on 4 Hampshire Avenue. Do you
3 have that in front of you?

4 Q I have the table. I show Zhou as the first one?

5 A Can we get -- just a second. I think we can put
6 it up. That's a start. Yeah.

7 Okay. This one has them rank ordered. So
8 they're there. Okay? So there are your 14
9 properties within 100 feet. And you can see
10 they're all encumbered except one, and there is
11 a visibility. So those first five that are very
12 close encumbered and have clear visibility both
13 before and after, but then you get down to the
14 Gans property on Durham Point Road, and there's
15 a change from partial to clear. And the next
16 one is a change from partial to clear. And then
17 go down 3 or 4 to the Oakes property and you
18 have another one from partial to clear.

19 Q Okay. So on this table from Dow at the top down
20 to Ackerman, 262, those would the 14 properties?

21 A Precisely.

22 Q Okay. Thank you. I was trying to nail that
23 down.

24 I think my last question concerning those

1 properties from what I understand from your,
2 what I read and your testimony today is for this
3 area, you would anticipate a market value effect
4 on those properties of 5, 6, 7 percent. Is that
5 correct?

6 A Yeah. Half of them maybe. If they came to
7 market.

8 Q Do you know if Eversource has any discussions
9 with those property owners concerning
10 compensating them?

11 A I think they've had extensive discussion with
12 many of them with respect to mitigation at this
13 point. You know, that's been the focus of the
14 interaction, but several of those are very
15 close, and, you know, it's been an object of
16 real concern to the Applicant, and they've
17 engaged those owners in discussions to see what
18 can be done to mitigate the visual effects.

19 Q Great.

20 PRESIDING OFFICER WEATHERSBY: Does anyone
21 else on the Committee have any questions or
22 Attorney Iacopino?

23 MR. IACOPINO: I do.

24 **QUESTIONS BY MR. IACOPINO:**

1 Q I just want to pick up where the Chair left off,
2 and I just want to ask this question. If in
3 fact all 14 of those properties did indeed
4 exhibit a price effect and it was at the high
5 range of 17 percent or whatever your range is,
6 would you consider that to have an effect on the
7 overall market in Durham or Newington?

8 A I don't have those numbers in front of me, but,
9 you know, residential properties sort of turn
10 over 5 percent. So 14 properties, you say
11 usually might expect one of these a year or
12 something like that? So that certainly wouldn't
13 have any impact on the property, any impact on
14 the market. No. I don't see how it could
15 affect the market. It's just, I don't know
16 exactly what the housing stock is in Durham, but
17 numbers have to be considerable.

18 Q Okay. Thank you. My next question is did you
19 have any input into either the drafting or
20 negotiation of the dispute resolution process?

21 A No, I didn't.

22 Q Okay. I know that you testified a little bit
23 about it here. It's not a property value
24 guarantee, correct?

1 A I wouldn't call it that, no.

2 Q What I'm looking at is paragraph 21 of
3 Applicant's Exhibit 193 which is the stipulation
4 with Counsel for the Public. That says that
5 Counsel for the Public and the Applicants -- and
6 this question you may not know the answer to but
7 the lawyers in the room and the parties may want
8 to pay attention to it -- says that the Counsel
9 for the Public and Applicants shall jointly or
10 separately file with the SEC proposed procedures
11 for filing and deciding said disputes, and then
12 it goes on to list what should be in there. Do
13 you know when this stipulation is expecting
14 those things to be decided and how the SEC will
15 decide what procedures to use?

16 A I think you and Mr. Needleman, I think, will
17 have to discuss that. I don't have anything to
18 add on that.

19 Q So you think it might be a good idea for the
20 parties in this case to put something in their
21 memos at the end of the case about how that's
22 going to happen?

23 A It's up to you to decide. Seems like a good
24 idea.

1 Q Thank you. All right. Thank you. I have no
2 other questions.

3 PRESIDING OFFICER WEATHERSBY: Ms. Duprey?

4 MS. DUPREY: Yeah. I was just looking
5 through Exhibit D and maybe I didn't go far
6 enough. I think I did. I don't see 14
7 properties that it changed from none to
8 something or partial to clear.

9 A There are only four that change.

10 MS. DUPREY: Okay. Only four. Okay. So
11 only those four. When we talk about 14?

12 A 14 total within 100 feet.

13 Q Okay. Okay. Thank you.

14 PRESIDING OFFICER WEATHERSBY: Any further
15 questions from the Committee?

16 (No verbal response)

17 PRESIDING OFFICER WEATHERSBY: Attorney
18 Needleman, redirect?

19 MR. NEEDLEMAN: Thank you.

20 **REDIRECT EXAMINATION**

21 **BY MR. NEEDLEMAN:**

22 Q Just a couple of questions. Dr. Chalmers, when
23 Mr. Fitch was questioning you, he posed to you,
24 I'm not sure whether it was a hypothetical or

1 whether he was arguing it was reality, that the
2 line as it exists today behind his house and
3 running past there is not energized. During the
4 break did you have an opportunity to figure out
5 what the facts are today regarding that line?

6 A Yes. It's my understanding that the line is
7 energized.

8 Q And then just one other area. Let me go back to
9 what Ms. Duprey was asking you a few minutes
10 ago. Are you familiar with joint use agreements
11 generally?

12 A Generally.

13 Q So is it your understanding that a joint use
14 agreement is an agreement between say the
15 utility, Eversource, and a property owner that
16 establishes mutually agreeable uses within an
17 utility right-of-way?

18 A Yes.

19 Q And do you understand that those agreements are
20 sometimes or always recorded at the Registry of
21 Deeds?

22 A Yes.

23 Q So to the extent that the utility were to build
24 a Project that impinged on a joint use

1 agreement, you would be taking away a right, a
2 property right, that somebody had, correct?

3 A Correct.

4 Q So could that have an effect on the value of the
5 property?

6 A Yes.

7 Q Conversely, if somebody is using a utility
8 right-of-way, say, to locate a trailer, and they
9 don't have a right to do that, if a Project is
10 built that now takes away their ability to use
11 the right-of-way for a trailer, they are losing
12 a right they never had, correct?

13 A That's right.

14 Q And is it your opinion in that case then that it
15 would not have an impact on the value of the
16 property?

17 A Right. Maybe they were getting away with it,
18 but yes, that wouldn't, you couldn't assume you
19 had that right.

20 Q Okay. Thank you.

21 MR. NEEDLEMAN: Thank you, Madam Chair.

22 PRESIDING OFFICER WEATHERSBY: Thank you.

23 Thank you, Dr. Chalmers, for your testimony.

24

{WITNESS: BAILEY}

1 You're all set. Thank you.

2 Why don't we take a five-minute break while
3 we're changing witnesses. We'll next hear from
4 Dr. Bailey.

5 (Recess taken 2:46 - 3:02 p.m.)

6 PRESIDING OFFICER WEATHERSBY: We will
7 resume. Welcome back, Dr. Bailey.

8 (Whereupon, **Dr. Michael Bailey** was duly sworn by the
9 Court Reporter.)

10 **DR. WILLIAM BAILEY, SWORN**

11 PRESIDING OFFICER WEATHERSBY: Attorney
12 Needleman?

13 MR. NEEDLEMAN: Thank you.

14 **DIRECT EXAMINATION**

15 **BY MR. NEEDLEMAN:**

16 Q Could you please state your name and business
17 address for the record?

18 A William Bailey. 2017 Science Drive, Bowie,
19 Maryland.

20 Q And where do you work?

21 A That's where I work.

22 Q Name of the company?

23 A Exponent.

24 Q Thank you. I've given you three exhibits. The

1 first is Applicant's Exhibit 11 which is your
2 Prefiled Direct Testimony dated April 12th,
3 2016.

4 The second is Applicant's Exhibit 80 which
5 is your Amended Prefiled Testimony dated March
6 29th, 2017.

7 And then the third is Exhibit 191 which was
8 recently filed. It's your updated CV. Do you
9 have all those documents?

10 A Yes.

11 Q And where respect to Exhibits 11 and 80, your
12 pieces of testimony, do you have any changes or
13 additions?

14 A Just to Exhibit 11.

15 Q All right. With respect to the changes or
16 additions to Exhibit 11, could you walk through
17 them and do so by referring to the page and the
18 line?

19 A Yes. If you turn to page 7, line 23, I am
20 updating a value of 31.43 milligauss to 33.53
21 milligauss.

22 Q Any others?

23 A That's it.

24 Q Okay. So subject to that one change, do you

1 adopt and swear to both these pieces of Prefiled
2 Testimony?

3 A I do.

4 Q Thank you. All set.

5 PRESIDING OFFICER WEATHERSBY: Thank you.
6 First questioner will be Attorney Patch for Town
7 of Durham and UNH.

8 **CROSS-EXAMINATION**

9 **BY MR. PATCH:**

10 Q Good afternoon.

11 A Good afternoon.

12 Q My name is Doug Patch. I represent the Town of
13 Durham and University of New Hampshire.

14 Beginning on line 26 of page 6 of your
15 Original Testimony, Exhibit 11 I believe it is,
16 you had indicated that two internationally
17 recognized agencies have developed
18 scientifically based electric and magnetic field
19 exposure guidelines. Is that correct?

20 A Yes.

21 Q And one of those is the International Committee
22 on Nonionizing Radiation Protection or ICNIRP,
23 correct?

24 A Yes.

1 Q And the other is the International Committee on
2 Electromagnetic Safety which is a committee of
3 the Institute of Electrical and Electronics
4 Engineers or IEEE, correct?

5 A Yes.

6 Q And I think from your CV or from your testimony,
7 you had indicated that you're a member of two
8 subcommittees of the IEEE Committee; is that
9 fair to say?

10 A Yes.

11 Q Now, the guidelines that have been developed by
12 ICNIRP are formally recognized by the World
13 Health Organization and recommended for adoption
14 by national authorities; is that correct?

15 A Both, they refer in various places to both of
16 these guidelines, and they recommend the
17 adoption of such guidelines by nations.

18 Q And according to your testimony, page 7, lines 3
19 to 6, this is Exhibit 11, the reviews performed
20 by these organizations identified potential
21 adverse effects and then developed the exposure
22 level at which these effects are reported,
23 correct?

24 A Yes.

1 Q What are the potential adverse effects that were
2 identified?

3 A Like anything else in life at sufficiently high
4 exposure levels, we may experience adverse
5 effects. The adverse effects that were
6 identified by these organizations refer to the
7 production of voltages and currents within the
8 body that could potentially disrupt nerve
9 function, and that was the adverse effect that
10 they found that had occurred at the lowest level
11 of exposure.

12 Q Now, this suggests to me that there are in fact
13 adverse effects that electric and magnetic
14 fields can have. That seems pretty evident from
15 what you've just said. Though your conclusion
16 with regard to this particular Project is that
17 the EMF levels that you have modeled for the
18 Project are below the limits on public exposure
19 that are recommended by those two international
20 agencies, correct?

21 A Those levels were modeled by Eversource, and
22 these agencies and the World Health Organization
23 have not concluded that there are adverse
24 effects at exposure levels below these

1 guidelines.

2 Q Below the guidelines.

3 A Correct.

4 Q And you said that in terms of the modeling that
5 you did for this Project, it was based
6 essentially on what Eversource provided to you?

7 A Yes.

8 Q And that's, is that found in Appendix 41 which I
9 believe has been marked as Exhibit 61? Is that
10 correct?

11 A It's in Exhibit 41 and Exhibit 41 A.

12 Q And are the electric and magnetic fields that
13 can be expected for a transmission line of this
14 size pretty typical?

15 A Yes. They're probably at the lower range for
16 transmission lines.

17 Q And so when you say that Eversource had provided
18 you with the information that was the basis for
19 your modeling --

20 A Excuse me, sir.

21 Q Yes.

22 A As I said before, we did not perform modeling of
23 the electric and magnetic fields. That modeling
24 was performed by Eversource, and it is found in

1 Exhibit 41 and 41 A of the record. So yes, I
2 relied upon the information that is in the
3 record that was submitted to the Committee by
4 Eversource.

5 Q Okay. Well, thank you for that clarification.
6 I was looking at your testimony, page 10, lines
7 4 through 6, and you referred to "the modeled
8 EMF levels," and you're clarifying that you
9 didn't model them, Eversource did.

10 A Correct.

11 Q And so your assessment then in this testimony is
12 essentially based on all the information that
13 they provided you, but I think you just told me
14 that essentially the numbers that are included
15 in Appendix 41 are not out of line; they, in
16 fact, may be on the low side compared to other
17 transmission Projects. Is that fair to say?

18 A Yes.

19 Q And so you took what they modeled, and then you
20 did a review of literature. Is that essentially
21 what you did?

22 A Yes. We reviewed the calculations and how they
23 compared to these international guidelines and
24 also looked at what national and international

1 scientific and health agencies had concluded
2 about exposures at these levels.

3 Q Do you do any particular analysis of the
4 modeling that they did or do you just accept it
5 the way they give it to you? Do you make sure
6 that they followed certain guidelines? Do you
7 make sure that there's something that they did
8 that is sort of a key to you, you know, to make
9 sure that you're relying upon calculations that
10 are accurate or consistent with certain
11 standards?

12 A The methodology that they described which they
13 followed is well-known and has been assessed for
14 its accuracy numerable times in the literature.
15 Out of curiosity, I asked one of our engineers
16 to go through and spot check the values, and we
17 found either that they were exactly the same for
18 those values or in the case of electric fields
19 within a tenth of a Vigi per meter or for
20 magnetic fields within three tenths of a
21 milligauss. Very small and insignificant
22 differences.

23 Q Is this the first time that you've done a
24 analysis essentially for the purposes of a

1 Project where you've relied on modeling that's
2 been done by Eversource?

3 A No. There are other Projects in the past where
4 other consultants or the Applicant has, their
5 engineers have performed the modeling.

6 Q No, but I'm talking about your analysis and
7 whether you've done that based on modeled
8 information done by Eversource before.

9 Have you ever worked with Eversource in
10 this kind of Project?

11 A I don't recall a particular situation, no.

12 Q In your March 2017 Prefiled Amended Testimony,
13 Exhibit 80, I think it's at the bottom of page 1
14 over on to page 2, you said that the
15 undergrounding of just over one half mile,
16 additional mile of the project transmission line
17 will result in lower post-project levels of both
18 electric and magnetic fields. Is that correct?

19 A Yes.

20 Q So is it fair to say then that the more
21 undergrounding that is done on this Project or
22 any Project like it for that matter, the lower
23 the level of electric and magnetic fields?

24 A Not necessarily. It would depend upon the

1 circumstances. Here, going underground
2 eliminates the electric field which is
3 associated with any overhead line and placing
4 the conductors closer together underground tends
5 to enhance the cancellation of the magnetic
6 fields from the conductors, and the field would
7 fall off with distance more quickly than for an
8 overhead line, but that, depending upon where
9 that underground line is placed, it may lead to
10 lower or higher exposures.

11 Q So you looked at where the conductors were
12 proposed to be located aboveground and compared
13 that to where the conductors are proposed to be
14 located underground, and based at least in part
15 on that, you concluded that there would be less
16 electric and magnetic field impact; is that fair
17 to say?

18 A Yes, as is shown in the filings.

19 Q Yes. Now, you prefiled two testimonies in this
20 docket. I think Mr. Needleman walked through
21 that with you. The first one being Exhibit 11,
22 consisting of 10 pages, your Original Testimony,
23 filed in April of 2016, correct?

24 A Yes.

1 Q And the other Exhibit 80 consisting of two
2 pages, your Amended Prefiled Testimony, filed in
3 March of 2017, correct?

4 A Yes.

5 Q And you didn't file any Supplemental Testimony
6 in July of this year, did you?

7 A No.

8 Q The only thing you filed which has been marked
9 as Exhibit 191 in July of this year is your
10 updated CV, correct?

11 A Yes.

12 Q Now, I've reviewed both of those exhibits, both
13 of those testimonies that you filed, and I
14 didn't see anywhere in there that you had
15 addressed the issue of the impact of magnetic
16 fields on Essential Fish Habitat. Is that fair
17 to say?

18 A That's correct.

19 Q Thank you. I have no further questions.

20 PRESIDING OFFICER WEATHERSBY: Thank you.
21 Next questioner will be Town of Newington. Ms.
22 Geiger, I'm assuming that's you and not Beth
23 Boepple?

24 MS. GEIGER: That's correct, Madam Chair,

{WITNESS: BAILEY}

1 but actually we don't have any questions.

2 DR. BAILEY: Excuse me, Madam Chair. If
3 you could speak up, I'm a bit hard of hearing.

4 PRESIDING OFFICER WEATHERSBY: I'm sorry.
5 I'll make sure I get this mic real close to my
6 mouth.

7 Next will be Attorney Brown for Durham
8 Residents.

9 MS. BROWN: I failed to update the time
10 allotted. We have nothing.

11 PRESIDING OFFICER WEATHERSBY: You have
12 nothing. Okay. And no one else other than
13 Counsel for the Public has indicated they have
14 any questions; is that correct?

15 (No verbal response)

16 **CROSS-EXAMINATION**

17 **BY MR. ASLIN:**

18 Q Good afternoon, Dr. Bailey.

19 A Good afternoon.

20 Q My name is Chris Aslin. I'm designated as
21 Counsel for the Public in these proceedings.
22 Just a few questions to follow up.

23 You indicated that Eversource perform the
24 model for this analysis of EMF; is that correct?

1 A Yes.

2 Q Do you know who at Eversource, which personnel
3 were involved?

4 A Yes. Mr. Chris Soderman.

5 Q Can you repeat that answer?

6 A S O D E R M A N.

7 Q Thank you. I'll pull up your testimony. In
8 your initial testimony, on page 9 at line 12, 12
9 through 15, you have a quotation here from the
10 WHO, the World Health Organization, regarding
11 recent review of scientific literature. Do you
12 see that quote?

13 A Yes.

14 Q And I went and took a look at the actual source
15 of that which is cited as a website, WHO, down
16 here, footnote 8.

17 A Yes. That's a WHO website where they, among
18 other things, provide information for the
19 public.

20 Q And do you see, does this look like that same
21 website?

22 A You'd have to go up to the top.

23 Q I can certainly do that.

24 A Yes. It's in there.

1 Q Okay. And I think the quote or the language, I
2 think the quoted language is down here in
3 conclusions from scientific research, and it has
4 this language, that based on a recent indepth
5 review of scientific literature the WHO
6 concluded? Does that look like the right quote?

7 A Yes.

8 Q And I just wanted to note That there's a
9 follow-on sentence that says however, some gaps
10 in knowledge about biological effects exist and
11 need further research. Do you see that?

12 A I do.

13 Q Do you have any knowledge about what gaps in
14 knowledge are being referenced here?

15 A Yes. If you go to their 2007 report and another
16 document from the WHO, they describe the kind of
17 studies that they would like to see to amplify
18 upon the existing database of literature, and
19 there has been a great deal of research done
20 since then that has followed up on those
21 recommendations.

22 Q Can you give us an example of the type of
23 research that they've recommended to fill in
24 existing data gaps?

1 A Certainly. As described in my testimony and
2 other writings, in studies, epidemiology
3 studies, there is a statistical association
4 between certain types of cancer and estimates of
5 exposure to magnetic fields, and given the
6 difficulties of these studies and the rarities
7 of the types of cancer of interest, their
8 recommendation was that additional research
9 using better methods and larger populations be
10 pursued, and in fact that has been the case.

11 Q So further study has taken place, in other
12 words?

13 A I'm sorry?

14 Q Are you saying that that further study has taken
15 place at this point?

16 A Yes. Considerable research on that topic has
17 taken place.

18 Q But according to the last sentence of this
19 paragraph on their website, they still seem to
20 have concerns about some data gaps existing?

21 A I would guess that may be referring to the data
22 gaps that they had previously identified. And I
23 don't know of any listing that I could give in
24 detail of anything new that they have come up

1 with.

2 Q Okay. And you reference some forms of cancer.
3 Is that childhood leukemia primarily that you
4 reference on the bottom of page 9 in your
5 Original Testimony, Applicant's Exhibit 11?

6 A Yes. That was the particular focus of both the
7 IARC panel in 2002 and the WHO review in 2007.

8 Q Would it be a fair summary to say that there's
9 some statistical correlation between childhood
10 leukemia and exposure to electromagnetic fields
11 but there's not been any direct evidence of
12 causation?

13 A That's correct.

14 Q Okay. So there may be something going on but
15 nothing that has risen to the level of being
16 able to prove scientifically of a direct
17 correlation?

18 A Well, correlation is not causation, and what was
19 reported in the earlier studies was that if you
20 take a population of children with leukemia and
21 compare their estimated exposures to magnetic
22 fields to a population of children without
23 leukemia of similar age and sex, there appeared
24 to be a difference in the exposure of these two

1 groups.

2 Subsequent research has continued to try
3 and understand if that difference in exposure
4 has anything to do with the origins of the
5 disease, and very large national and
6 international studies have been conducted, and
7 even though we don't have a full explanation why
8 in the earlier studies this association was
9 present, there are a number of larger new
10 studies with improved methodologies for which
11 the association has dramatically reduced or
12 entirely disappeared. So that's what new
13 research has added on this topic.

14 Q Okay. Thank you very much. I wanted to turn to
15 Eversource's analysis and ask you a couple of
16 questions about the results. So the first is
17 I'm looking at Applicant's Exhibit 61, and this
18 is page 16 of the report which is electronic
19 page 21, and there are a number of these figures
20 in the report looking at different locations
21 along the right-of-way; is that correct?

22 A Yes.

23 Q And this one in particular is looking at the
24 Little Bay crossing for the underwater cable; is

1 that correct?

2 A Correct.

3 Q And the dashed blue line, if I understand
4 correctly, is the existing magnetic field in
5 that location?

6 A Right.

7 Q Which is zero because there's no power on those
8 cables. And then the green line would be the
9 modeled prediction of the magnetic field after
10 the Project is built.

11 A Yes.

12 Q In looking at the various figures, the level of
13 the magnetic field in the underwater crossing is
14 significantly higher than the overhead sections.
15 Can you give us an explanation why that might be
16 the case? And just for an example, if we go to
17 the prior page, we see it's in the 20 milligauss
18 range and here it's up at the 80 to 100 range.

19 A The simple explanation is that the, here the
20 three phases of the power line are separated
21 widely in space. So a magnetic field has both
22 an intensity and a direction, and so if you have
23 two magnetic field sources close together, the
24 magnetic fields to the extent that they go in

1 opposite direction can cancel one another.

2 So if you have widely separated phase
3 cables, as in this case, there's little
4 cancellation of the magnetic field by each of
5 the cables amongst themselves. And so you
6 essentially, it's more like having three
7 separate, it is in fact three separate cables
8 whereas if you put the cables in an underground
9 duct bank, they may be a matter of a foot away
10 from each other. So there's greater opportunity
11 for cancellation.

12 Q Okay. Thank you. And in the Amended Report
13 which is Applicant's Exhibit 99, there are a
14 couple of tables at the end that kind of
15 summarize the results, and I wanted to take a
16 quick look at those as well.

17 The first is on electronic page 17, and
18 it's report page A-2.

19 A I'm there.

20 Q Okay. Thank you. It appears here that there's
21 a jump in the proposed post-project magnetic
22 field that occurs when it hits the underground
23 section from Little Bay to Structure 102, and it
24 stays slightly elevated until the Frink Farm

1 underground is complete, and then it goes back
2 down, and I was wondering if you could explain
3 why there would be a difference in magnitude in
4 that section of the Project.

5 A I'm not an expert on the construction or
6 installation of the facilities and so these
7 relatively small differences could be due to the
8 location of the conductors, the change in the
9 structure, the proximity to the edge of the
10 right-of-way could produce small changes. So
11 you'd have to go back and look at the
12 configuration of each one of these
13 cross-sections compared to the original or to
14 each other in order to sort of parse that out.

15 Q Okay. And you said these are relatively small
16 differences. Is a doubling of the magnetic
17 field at this level fairly insignificant?

18 A Given that transmission lines, you could have
19 overhead transmission lines where the maximum
20 field levels of the magnetic field of the
21 right-of-way could be 3 or 400 milligauss these
22 are quite low in intensity, and the differences
23 are, you know, less than ten milligauss
24 approximately.

1 Q Okay. Thank you. And then turning to the
2 electric field calculations, they seem to be
3 similar although in a different location. Maybe
4 it's the same location if we exclude the
5 underground. But similar small bump-up in the
6 section from Structure 102 to Frink Farm. Is
7 your answer essentially the same, it will depend
8 on the specific construction of the Project to
9 explain that difference?

10 A Correct.

11 Q But again, this is, would you say this is a
12 small enough change that it's not significant?

13 A These are very, very low levels, and the
14 differences are a few percent so I would not
15 characterize this as large at all.

16 Q Okay. Thank you. With regard to the analysis
17 that's been done, it would appear to predate the
18 change in structure type at the transition
19 structures, and you may or may not be aware of
20 that change, but would you expect that changing
21 the structure type would have any impact on
22 either magnetic field or electric field for the
23 Project?

24 A You'd have to do it on a site specific basis.

1 Generally speaking, for the same elevation
2 aboveground, you'll have lower fields if the
3 conductors are arranged in a triangular or delta
4 fashion as is proposed in certain sections than
5 for horizontal configuration. So that is one
6 factor that would account for differences in
7 terms of structures.

8 And obviously, if you moved closer to a
9 particular structure, you may lower the field
10 because the conductors are higher, and if you go
11 between the structures the field levels will be
12 higher because the conductors are closer to the
13 ground.

14 So it's factors like that, proximity to the
15 conductors and the arrangement of the conductors
16 that would determine these variations in the
17 magnetic fields.

18 Q So to the extent there's been design changes
19 proposed since this analysis was conducted, it
20 may have some effect on the modeled results?

21 A The modeled results reflect the design changes.

22 Q But to the extent that there have been design
23 changes subsequent to the modeling, would that
24 potentially affect the results?

1 A I would have to review that on a specific basis,
2 but I have not heard from my reading of the or,
3 let's say, I've not heard about design changes
4 that would be very important, but I would have
5 to have the opportunity to review those.

6 Q Okay. Thank you very much. No further
7 questions.

8 PRESIDING OFFICER WEATHERSBY: Anyone on
9 the Committee have questions for Dr. Bailey?
10 Mr. Fitzgerald?

11 **QUESTIONS BY MR. FITZGERALD:**

12 Q Good afternoon. You mentioned earlier that the
13 primary effect was nerve -- I forget how
14 specifically characterized it, but there was
15 some change to nerve response; is that correct?

16 A Yes, at very high levels.

17 Q Okay. And is that the same, is it the same for
18 both EMF, I mean for electric and magnetic
19 field?

20 A Essentially, yes. For instance, if you're
21 exposed to a magnetic alternating magnetic field
22 on the order of, oh, 50,000, 80,000 milligauss,
23 you might experience a vague flickering
24 sensation in the eye which you could duplicate

1 yourself by putting your finger on your closed
2 eyelid and pressing against the eye, you'll have
3 what's called a visual phosphene, and the
4 alternating magnetic field at this level could
5 stimulate the cells in the retina and cause that
6 visual sensation.

7 With regard to electric fields, you cannot
8 create an electric field in air that would be
9 sufficient to produce that effect, but if you
10 put electrodes on the scalp and passed current
11 into the brain directly you could through the
12 electric field, from the electrodes you could
13 create that same visual phosphene.

14 And so the idea behind the setting the
15 standards was here is a confirmed biological
16 response to electric and magnetic fields that if
17 it were to occur in other parts of the brain
18 might be adverse, particularly if continued over
19 a long period of time. And so therefore, that
20 was taken as the adverse effect that occurs at
21 the lowest exposure.

22 Q Thank you.

23 PRESIDING OFFICER WEATHERSBY: Mr. Schmidt.

24 MR. SCHMIDT: Good afternoon.

1 **QUESTIONS BY MR. SCHMIDT:**

2 Q I believe I heard you say earlier that in
3 certain circumstances undergrounding EMF could
4 actually increase?

5 A It could increase a person's exposure to
6 magnetic fields.

7 Q Right. Could you explain the conditions where
8 that would happen versus a decrease in the
9 exposure?

10 A Okay. Well, if you're standing directly on top
11 of the underground cable, it's possible you
12 might have a higher exposure to magnetic fields
13 than as if you'd been standing underneath that
14 same line in an overhead design because you're
15 physically closer to the cable.

16 Now, if you go 25 feet away from that
17 underground cable, generally I would expect the
18 magnetic field to be lower, considerably lower
19 than directly over the cable, and the rate at
20 which that magnetic field falls off with
21 distance is faster than for an overhead line.

22 But you could put, with an underground
23 circuit on a right-of-way, you could have
24 essentially no potential exposure except to

1 someone walking directly over it, but if you put
2 that same cable in the street, then everybody
3 walking down the street or walking along the
4 sidewalk would be potentially exposed even
5 though the line was underground and out of
6 sight.

7 Q All right. Thank you very much.

8 PRESIDING OFFICER WEATHERSBY: Anyone else
9 have any questions? I have one.

10 **QUESTIONS BY PRESIDING OFFICER WEATHERSBY:**

11 Q There's been a suggested condition that
12 Eversource measure the magnetic field at peak
13 load conditions at the edge of the right-of-way
14 both before and after construction of the
15 project, and if it exceeds the standards, that
16 Eversource would be required to mitigate so that
17 it is below those international standards you
18 cited.

19 Do you know if that includes measuring for
20 the underground cable or just the aboveground
21 portion?

22 A For the magnetic fields, one can measure the
23 magnetic field from underground or overhead
24 lines. For the electric field, you would only

1 be able to measure that for the overhead portion
2 of the project. You would not measure an
3 electric field from the underground lines at
4 all.

5 Q Okay. And for the underground portion, would
6 the edge, given what you just said a moment ago
7 in response to Mr. Schmidt's question, for the
8 underground portion would the edge of the
9 right-of-way be the appropriate point to measure
10 the magnetic field for safety purposes or would
11 it be above the cable itself? That hundred-foot
12 right-of-way people are crossing?

13 A Right. Generally, we have done these
14 measurements around lots of different overhead
15 and underground lines, and generally what is
16 done is to take measurements perpendicular to
17 the cable over a distance depending upon
18 circumstances and availability of space out to
19 either side of the cable, and there you have a
20 complete picture of that. But recognize that
21 that is essentially a spot measurement. So it
22 could be that due to changes on the electric
23 power system the current flow could be lower
24 than at the time of the measurements or it could

1 be higher.

2 So that's why in permitting cases such as
3 this all the comparisons between pre- and
4 postconstruction are made on the basis of
5 calculations because you're comparing apples to
6 apples. The difficulty with postconstruction
7 measurements is that you're only measuring the
8 magnetic field or electric field at that
9 particular location at that point in time.

10 Now, what we have done in the past to
11 account for potential variations in current flow
12 with regard to the magnetic field is to say
13 okay, here is a magnetic field we measured at 5
14 o'clock, and from the utility we get the record
15 of what the power flow on the cable was at that
16 time. So then we can say okay, if the power
17 flow was half what had been projected to be the
18 flow of interest, we could take that magnetic
19 field that we measured for those conductors and
20 scale it up to what the magnetic field would be
21 at any particular loading.

22 Q Okay. The condition is for peak load
23 conditions? But what I hear you say is if it
24 isn't measured at peak load, it could be

1 calculated to what it would be at peak load?

2 A Right. We could estimate from the
3 specifications at the point of measurement the
4 burial depth of the cables and everything we
5 know from the Application, and if we know the
6 loading at that time, we can relate the loading
7 on the line to the magnetic field, and if we
8 wanted to ascertain what that loading would be
9 if we were in a peak loading condition, it could
10 be estimated.

11 Q And at what location should that measurement be
12 taken for an underground cable?

13 A Typically because the levels diminish quickly
14 with distance, I would say the most accurate way
15 of doing that would be taking the measurement
16 directly over the cable where you do not have as
17 much likelihood of interference from other
18 magnetic field sources. So, you know, if you
19 took that measurement 50 feet away and there
20 were other magnetic field sources, they would be
21 contaminating the field you were trying to
22 measure in the first place.

23 So I would think that the best location in
24 general would be directly over the cable.

1 Q And do you know if this proposed condition
2 extends to testing electric or magnetic
3 fields -- I guess it would just be magnetic
4 fields -- for the underwater portion? And if
5 so, at what location should that be taken?

6 A Right.

7 Q Surface water or --

8 A Well, one can do a similar kind of analysis.
9 Once -- and the measurement need not be taken
10 underwater. The cable, as I understand it in
11 general, is going to transition from a structure
12 to go across Little Bay. And you could take the
13 magnetic field measurements directly over that
14 cable on land and that would give you a -- and
15 if you know the loading on the cable, then you
16 could then use that to say okay, five feet from
17 the cable or ten feet from the cable in the
18 water the field would be X. It is also possible
19 to take measurements above buried submarine
20 cables, and we have proposed this in some other
21 research studies but not for a commercial
22 project.

23 Q So this condition also applies that if for some
24 reason the magnetic or electric fields exceeded

1 those international standards, Eversource would
2 mitigate that situation so that they would be
3 below the standards, keep it in the healthy
4 range. What would be forms of mitigation should
5 that occur?

6 A Let me say first, given the extremely low field
7 levels here, it's hard to come up with any kind
8 of exposure scenario in which the magnetic field
9 over the cable would rise to 2000 milligauss.
10 I'm not sure that the cable's even physically
11 capable of carrying a current that could
12 generate a magnetic field that high, given that
13 it's buried underneath the ground and some
14 distance away from the cable. So that's the
15 first consideration I would have.

16 The second consideration is that you could,
17 you could, if you wanted to, you could put,
18 increase the separation from the top of the
19 earth to the cable by putting matting above it
20 or additional pavement. You could put a steel
21 plate across it.

22 The disadvantage of doing that is while you
23 would reduce the magnetic field directly above
24 the cable, the magnetic field might actually,

1 once reduced directly underneath the plate may
2 come up and be higher at the edges of the plate,
3 further away from the cable than it would have
4 been otherwise.

5 So there are ways to mitigate the magnetic
6 fields of underground cables, but they're not
7 simple and not hugely effective.

8 Q And how about for aboveground conductors?

9 A Aboveground conductors, there are a variety of
10 techniques one can change the configuration of
11 the conductors aboveground. You could put them
12 in a delta configuration as I discussed. You
13 could increase the height of the towers
14 supporting them, and that would have a pretty
15 dramatic effect in terms of reducing the
16 magnetic field both under and directly around
17 the line. Those are the kinds of things that
18 have been considered.

19 Q Is planting trees or fencing, that sort of
20 thing, would that also reduce the, if you did it
21 before the edge of the right-of-way?

22 A Did you say fencing?

23 Q Fencing or planting of trees or anything other
24 than beyond changing the structures themselves

1 and the lines?

2 A I mean, there are research -- are you talking
3 about the electric field?

4 Q Yes.

5 A Or magnetic field or both?

6 Q Both. Either.

7 A Okay. Well, if you wanted to reduce your
8 exposure to electric fields, you could just put
9 up an umbrella over your head and walk
10 underneath it and the umbrella would provide a
11 good deal of shielding from the electric field.
12 Not so the magnetic field. You could put up
13 wires underneath the line that would tend to
14 reduce the field and serve in the concept that I
15 described as the umbrella.

16 Given that the electric fields are
17 vanishingly small here, it wouldn't seem that
18 that would be a very scientifically useful
19 exercise, and the WHO has cautioned against
20 spending more money to avoid a speculative
21 exposure, a speculative risk, than to something
22 that you would spend money for to avoid an
23 onerous. So given the WHO and other scientific
24 and health agencies has not determined that the

1 levels of electronic or magnetic fields
2 associated with this Project are even close to
3 the recommended guidelines, I wouldn't see that
4 there would be a basis to do this unless it
5 could be done at very low or no cost.

6 Q Okay. Thank you.

7 PRESIDING OFFICER WEATHERSBY: Anyone else
8 have any followup questions? Okay. Thank you
9 for your testimony today. Do you have redirect?

10 MR. NEEDLEMAN: No. Thank you.

11 PRESIDING OFFICER WEATHERSBY: Thank you,
12 Dr. Bailey. You're excused.

13 We'll, therefore, be moving along to hear
14 from Robert Varney. We've changed the order
15 slightly. We will have Attorney Patch first.
16 For today, we're going to then move to Ms.
17 Ludtke to question second. Perhaps Attorney
18 Brown. We'll start the next time with the Town
19 of Newington given the amount of time that
20 they're requesting.

21 (Whereupon, **Robert Varney** was duly sworn by the Court
22 Reporter.)

23 **ROBERT VARNEY, SWORN**

24

1 PRESIDING OFFICER WEATHERSBY: Attorney
2 Needleman?

3 MR. NEEDLEMAN: Thank you.

4 **DIRECT EXAMINATION**

5 **BY MR. NEEDLEMAN:**

6 Q Please state your name for the record as well as
7 your business address and where you're employed?

8 A Yes. Robert Varney, 25 Nashua Road in Bedford,
9 and I'm President of Normandeau Associates.

10 Q I've given you three exhibits. The first is
11 Applicant's Exhibit 13 which is your Prefiled
12 Direct Testimony from April 12th, 2016.

13 Second is Applicant's Exhibit 81. That's
14 your Amended Prefiled Testimony from March 29th,
15 2017.

16 And the third is Applicant's 146, and that
17 is your Supplemental Testimony from July 27th,
18 2018. Do you have all those?

19 A Yes.

20 Q Do you have any changes or corrections to any
21 pieces of those testimony?

22 A No.

23 Q Do you adopt and swear to all three pieces of
24 testimony?

1 A I do.

2 Q Thanks. All set.

3 PRESIDING OFFICER WEATHERSBY: Thank you.

4 Attorney Patch?

5 **CROSS-EXAMINATION**

6 **BY MR. PATCH:**

7 Q Good afternoon, Mr. Varney. Doug Patch. I
8 represent the Town of Durham and UNH.

9 A Good afternoon.

10 Q The area this Application and this Project that
11 you're involved in and addressing in your
12 testimony is analyzing whether the Project will
13 unduly interfere with the orderly development of
14 the region, correct?

15 A Yes, as well as land use and planning-related
16 issues.

17 Q I mean, that's all part of that overall
18 condition that the Committee is required to
19 find, isn't it?

20 A Finding, yes.

21 Q As part of your analysis of whether the Project
22 will, you know, unduly interfere with that
23 development, did you take into account the
24 impact of installing concrete mattresses in

1 Little Bay?

2 A Yes, I did.

3 Q And I'm looking at what I think has been marked
4 as Exhibit 146, page 13, lines 4 to 5, where you
5 had listed four different points. One of which
6 was a concern about the visual impact of the
7 concrete mattresses during low tides, correct?

8 A Yes.

9 Q And is it fair to say that the only impact from
10 concrete mattresses that you mentioned in your
11 testimony was visual impact? And I'm looking,
12 I'm looking at lines 9 to 13 on that same page
13 where you relied upon Mr. Raphael's testimony.

14 A I did rely on his testimony. Yes.

15 Q And that's the only piece of the impact of
16 concrete mattresses that you took into account
17 was the visual impact. You didn't, for example,
18 look at navigational impact or recreation impact
19 or environmental impacts of concrete mattresses;
20 is that fair to say?

21 A No. I did consider those things as well.

22 Q You did?

23 A Yes.

24 Q Where does that appear in your testimony?

1 A I didn't specifically call that out, but I
2 mentioned specifically the visual impact as it
3 relates to especially the view from Little Bay
4 and tourism-related resources and where there
5 was a Visual Assessment conducted.

6 Q In your July of 2018 testimony, Exhibit 146, you
7 updated what I think was originally Appendix 43
8 which was the review of land use and local and
9 regional planning. It's Attachment 8 of that
10 testimony which I think begins on electronic
11 page 18. Is that fair to say?

12 A I don't have the electronic version in front of
13 me. Now I see it.

14 Q So I'm just asking, is that where you updated
15 Appendix 43 in that attachment, essentially?

16 A Yes.

17 Q And on electronic page 49 or page 30 of this
18 particular document, I'm going to see if I can
19 get there pretty quickly.

20 It says that Little Bay is used for a
21 number of recreation and commercial purposes by
22 residents, members of the public and a few local
23 companies, and that boating is a popular
24 activity in the areas, and there are a number of

1 public and private boat and land access sites.

2 Is that correct?

3 A Yes.

4 Q And in that July 2018 testimony, you also
5 included an update to the review of tourism and
6 regional recreation which I think was Attachment
7 B which is on electronic page 106, I believe is
8 what it is. Do you recall that?

9 A Yes.

10 Q And according to that document, I'm going to
11 look at what is electronic page 118 of that
12 document. There's a boat launch at Adams Point;
13 is that correct?

14 A Yes.

15 Q And I want to show you what's been marked as
16 TD-UNH 22. I have tried to put together a few
17 maps of the area that I thought would be
18 helpful. I tend to be a more of a visual
19 person, I think, and so I think it's helpful
20 sometimes to have a map and on -- let's see if I
21 can get this map.

22 A Yes. There are maps for access sites that are
23 also produced by the New Hampshire Coastal
24 Program and New Hampshire Fish & Game which I

1 reviewed.

2 Q Okay.

3 A And considered.

4 Q I just kind of wanted to point out so the
5 Committee could see it and they may already
6 know, but Adams Point if you look kind of in the
7 middle of that screen, it has a red marker which
8 I think according to the key to the map is shore
9 fishing access. Has a red marker at Adams Point
10 which appears to be just south of where the
11 cable will be crossing the bay, assuming the
12 Committee approves the Project as proposed. Is
13 that fair to say?

14 A Not "just south," but it is south, yes.

15 Q How would you characterize it then if not "just
16 south"?

17 A I think a better vantage point would be from the
18 viewing platform on the other side of the bay,
19 and if you walk on the trail from the refuge you
20 will look directly across at Jackson's Landing
21 which is a large cleared area on the shoreline
22 that has the UNH facilities at Jackson Lab, and
23 if you look to your right from that vantage
24 location a considerable distance, you can see

1 off in the distance the cable house. It's not
2 prominent in your view. It's a considerable
3 distance away. And this was reviewed by the
4 visual consultant as well.

5 Q You mentioned Jackson Landing. Is that correct?

6 A No. Jackson Lab.

7 Q Oh, Jackson Lab. I thought you said Jackson
8 Landing.

9 A Jackson Lab is also further out on Adams Point.
10 There's a small trail area there. There's other
11 lab facilities and parking lots and a small dock
12 area.

13 Q The report that we were just talking about a
14 minute ago, the Attachment B to your testimony,
15 on page electronic page 118 says there are kayak
16 tour companies that offer kayaking in Little
17 Bay. Is that correct?

18 A Yes.

19 Q And Attachment A to the report, and now I have
20 to go back to electronic page 49 of your
21 testimony and attachments, this page, on this
22 page it says that the Project team briefed the
23 kayaking companies about the Project. I think
24 it's down near the bottom of that page. Does

1 that sound correct?

2 A Well, yes. There's primarily one kayaking
3 company that uses that area during the summer
4 months. It's called Seven Rivers Paddling owned
5 by Peter Sawtell. Peter and I spoke directly
6 about the Project. He had submitted an email to
7 Pam Monroe expressing concern about the crossing
8 and making sure that it was done in an
9 environmentally sound way, and we talked about
10 the schedule of his paddling programs and even
11 some summer camps that they have during the
12 season. We discussed the time of year when the
13 construction at Little Bay was likely to occur,
14 and we agreed that the chances of any effect on
15 his paddling operations were very limited. We
16 did briefly discuss the issue of mattresses
17 along the shoreline, but his primary concern was
18 to make sure that the crossing was done in an
19 environmentally sound way.

20 Q And when did this briefing take place?

21 A Peter, I read his letter a very long time ago
22 but caught up with him just recently.

23 Q So it was after this document was prepared then?

24 A Yes, but I reviewed all of his information which

1 he has an extensive amount of information on his
2 webpage, and I'm also familiar with his company.
3 I've been on Little Bay and Great Bay many, many
4 times myself, and we, I wanted to make sure that
5 I followed up with him after there was more
6 information about the crossing from an
7 environmental standpoint which I wasn't handling
8 but was being discussed between Eversource and
9 the Applicant, Eversource as the Applicant, and
10 the regulatory agencies.

11 Q So I mean, I was starting to question you about
12 this sentence that it's actually the last
13 complete sentence on this page, page 30 of the
14 report, electronic page 49, where it says the
15 Project team has briefed these two companies
16 about the Project and will coordinate with them
17 once permitting is completed and a construction
18 schedule is established.

19 So that report refers to briefing of two
20 companies. Sounds like you were talking about
21 one of the companies?

22 A No. In the sentence above there you see
23 reference to the Gundalow Company and Portsmouth
24 Harbor Cruises. And with respect to those two

1 companies, I spoke directly with Molly Bolster
2 last spring I believe about Gundalow Company and
3 their operations and schedule and the ability to
4 not be impacted by the construction of the
5 project and to be able to avoid any impacts.

6 I also spoke directly with Drew Cole who is
7 the owner of Portsmouth Harbor Cruises. We had
8 a similar conversation about their detailed
9 schedule that's played out on their website and
10 described in my report in great detail, and he
11 indicated that he saw, with good coordination
12 and communication up front after SEC approval
13 but before construction, having that good
14 communication would enable them to avoid any
15 impacts if there were, and he questioned whether
16 or not there would even be any impacts on his
17 operation.

18 Q So I was focusing in my questions on the two
19 companies that offer kayaking tours that you
20 refer to in here, and from what I've heard you
21 say is that you recently sort of for the second
22 time briefed them, and in that briefing you
23 included a mention of the concrete mattresses.
24 But did you also --

1 A No. You're confusing the wording here. There
2 are two kayaking companies in the area. One
3 does not operate, very rarely operates or has
4 tours in Little Bay. It's in another part of
5 the Seacoast area where they have their tours.
6 That's described in detail as well.

7 The one that does operate in Little Bay is
8 the one that I talked with and the reference to
9 two companies is reference to Gundalow Company
10 and Portsmouth Harbor Cruises, and it's very
11 clearly stated on page 30.

12 Q Okay. Thank you for straightening that out.

13 Now, when you briefed the kayaking company
14 about the concrete mattresses, what did you say?

15 A I indicated that, to make sure that he was aware
16 that there would be concrete mattresses. He
17 indicated that he was aware that they were being
18 proposed, and we talked a bit just briefly about
19 how they may look, how they may look similar to
20 a boat launch or something until such time as
21 they have growth, more growth on them.

22 But, again, his primary emphasis, his
23 primary interest was in the environmental
24 aspects of the crossing and making sure that

1 there was no long-range transport several miles
2 away of sediments to any great degree.

3 Q And so did you inform him about the current
4 extent of concrete mattresses that are being
5 proposed?

6 A No. We didn't talk about it in any great detail
7 because he quickly knew what I was talking about
8 and was aware of it and knows that it's a tidal
9 area. It's a shallow area. He understands it.
10 And that's about all we talked about on that
11 matter.

12 Q So elsewhere in Attachment A, I'm looking at
13 electronic pages 28 and 29, and here you talked
14 about aquaculture. I say you, the report that
15 was prepared by Normandeau, talked about
16 aquaculture.

17 A Yes.

18 Q And says that shellfish aquaculture is small but
19 expanding; is that fair to say?

20 A In a relative sense compared to other states.
21 Yes.

22 Q Small relative to other states but expanding in
23 that area.

24 A Yes. Clearly indicated in the PREP documents,

1 Piscataqua Regional Estuaries Partnership
2 documents and other materials.

3 Q Now, I'm looking at your Original Testimony
4 which has been marked as Exhibit 13, and I'm
5 looking at page 7, and I'm looking at lines 1 to
6 3 where you say that the Project will not have
7 an impact on tourism. Did I read that
8 correctly?

9 A Yes.

10 Q Have you changed that view?

11 A No.

12 Q You still think there will be no impact on
13 tourism?

14 A No significant impact on tourism. There will be
15 some construction that obviously will take
16 place, there will be temporary impacts during
17 construction, but in terms of impact on tourism,
18 I see no basis for suggesting that there will be
19 any significant impact on tourism.

20 Q I mean, I notice that you inserted the word
21 "significant" which doesn't seem to be in your
22 Original Testimony. Is that fair to say?

23 A Yeah. I don't see the word there, but it's --

24 Q Okay, but that's your current view.

1 A Yes. It's not significant.

2 Q On, in Exhibit 146, page 15, lines 3 to 4, you
3 said there are a few activities and sites along
4 the Project corridor that could be temporarily
5 impacted during construction. Is that
6 consistent with what you just said?

7 A Yes. Absolutely. Yes. And many of those
8 temporary impacts can be avoided with good
9 communication.

10 Q And then back on page 8 of this Exhibit 146, I'm
11 looking at line 28. You said the Project will
12 not have any adverse effect on businesses. Is
13 that correct?

14 A Yes. Again, from the standpoint of the SEC
15 considering an Application, there's no reason to
16 believe that there would be any significant
17 effect on businesses beyond the typical
18 construction effects that could be there. But
19 overall, having looked very carefully at each
20 and every one, I didn't see any significant or
21 couldn't even quantify any potential impact to a
22 business given the nature of the project.

23 Q So this portion of your testimony I guess you
24 would add the word significant again?

1 A I could.

2 Q In Exhibit 13, your Original Testimony, I'm
3 looking at, I don't have the page number
4 unfortunately. It's probably, I think it's
5 probably back, we were on page 7 before. So
6 hopefully this is where it is. Line 27, you
7 said operation of the line will not place any
8 new demands on local or regional services or
9 facilities and will not have an impact on
10 tourism or recreation facilities in the region.
11 Did I read that correctly?

12 A Yes, that was intended to address longer term
13 impacts beyond construction, temporary impacts.

14 Q Do you consider Little Bay to be a tourism or
15 recreation attraction facility?

16 A It's a regional resource. I wouldn't call it a
17 facility, but I would call it a recreational
18 resource.

19 Q And is it a tourism attraction?

20 A To a certain extent. I would say that it's an
21 area where there's recreational boating with a
22 large number of people from the area as well as
23 some from visitors from outside the area. So I
24 wanted to make sure that I thoroughly covered

1 boating activities and water-related activities
2 in Little Bay as part the review of this
3 Project, and my conclusion is that there will
4 not be any significant effect on tourism or
5 recreational facilities in the region.

6 Q And so the insignificant effects then would
7 essentially be during construction; is that what
8 you would say?

9 A Again, I've stated very clearly in this, in the
10 report that there are construction impacts
11 associated with any construction project, and
12 the key to that is to have good communication
13 and outreach with property owners and businesses
14 and others in the area to avoid impacts, and to
15 the extent that there are small periods of time
16 when you can't avoid an impact to try to
17 minimize that in cooperation with that business.

18 Q So in terms of the construction of the submarine
19 cable where there would be a barge on Little Bay
20 and an excavator in the tidal flats and divers
21 operating hand jetting systems, and we'd have a
22 jet plow trial run, and then we'd have the final
23 run, and we have three trenches that need to be,
24 the sediments need to be stirred up so they can

1 lower the cables into the bay, three different
2 ones, then that's the temporary construction
3 that you're referring to insofar as the
4 submarine cables?

5 A That's the temporary construction that I talked
6 with those who are operating in Little Bay and
7 with others involved with boating and regulation
8 of boating to make sure that they understood
9 what was intended, that they understood the
10 relatively brief period of time when the
11 navigation channel would actually be crossed and
12 affected and the limited number of times when
13 anyone in the bay would be affected who was
14 using that resource.

15 Q When you say limited period of time, how did you
16 describe that to them?

17 A Generally as three days for the crossing that
18 relate to the crossing of the channel, three
19 different days spread out with at least a week
20 in between, and that there would be
21 communication with the project team in advance
22 of the construction schedule to make sure that
23 they were aware of that, along with the federal
24 agencies. I spoke directly with the Director of

1 the Division of Waterways for the US Coast Guard
2 in South Portland, Maine, to discuss how the
3 communication should go with them and what they
4 would like to see. Spoke directly with the
5 Director of Marine Patrol about their views, and
6 I also spoke directly with the Director of the
7 New Hampshire Port Authority who also has the
8 harbor master under his direction about the
9 project and their desire to sit down with the
10 Applicant and discuss what may or may not be
11 needed going forward after the Project is
12 constructed.

13 Q And did you mention at all the jet plow trial
14 run? Which would be three weeks before the
15 actual laying of the cable?

16 A I can't recall, but I don't think it would have
17 made a difference in their response to me in
18 terms of the limited number of days for that
19 temporary impact.

20 Q Now, I believe, I got up on the screen here,
21 TD-UNH Exhibit 21 which I believe you had seen
22 before. You made reference in your testimony,
23 Exhibit 146, page 14, line 16 to 18. I believe
24 you made a reference to this. There are

1 actually two responses from Todd Selig to
2 Eversource Data Requests that were made at a
3 Tech Session back in May.

4 A Yes.

5 Q Have you seen these?

6 A Yes.

7 Q Mr. Selig says, the question, in the first one
8 the question was identify businesses and tourism
9 destinations in the town of Durham that may be
10 negatively impacted by construction and
11 operation of the Project. And the answer was
12 our best estimate is that there are 194 total
13 businesses in Durham, 84 of those were impacted
14 by tourism. He also cites the many conservation
15 areas frequented by visitors to Durham. I won't
16 read them all.

17 And then he goes on to say essentially
18 whether and how many of the businesses and
19 tourism destinations will be negatively impacted
20 will depend on a number of variables which he
21 lists there.

22 A Yes.

23 Q But you've read that.

24 A Yes.

1 Q Is there anything in there that you would
2 disagree with?

3 A No. I don't have any reason to disagree with
4 anything there, other than to say that I
5 appreciated the input and was pleased that we
6 had covered the items that were anywhere near
7 the Project right-of-way and had also considered
8 the fact that the project is undergrounded at
9 Main Street which is obviously important to the
10 town, not to mention the MOU with the community
11 which is being negotiated which will address a
12 lot of the details that he talks about in his
13 response.

14 Q I have one of the maps that I referenced before
15 up on the screen which I think is a pretty good
16 visual indicator of the amount of conservation
17 land in that area. You just, Mr. Selig referred
18 to it. I think you referred to it in your
19 testimony. He referred to it in that response
20 we just went through. But does this, do you
21 have any reason to question the green on this
22 map is essentially the conservation areas in
23 that area?

24 A Yes. I'm very familiar with the Town of Durham

1 conservation areas. I attended the University,
2 gave tours of the campus as a student, lived in
3 Durham for four years, and worked for the
4 Planning Board so I'm very familiar with the
5 town and many of its resources.

6 I'm also familiar, having worked with a
7 number of environmental organizations, and also
8 I was involved in the creation of the Great Bay
9 National Wildlife Refuge upon the closure of
10 Pease Air Force base. So this area is an area
11 I'm very familiar with and considered very
12 carefully in my review.

13 Q But, admittedly, there are a lot of conservation
14 areas?

15 A Yes. In fact, I think I heard a question
16 earlier today about more than 20 percent of the
17 community being in conservation, and I think the
18 percentage is probably higher. It's probably
19 closer to 30 percent.

20 Q Now, back to the second response that Mr. Selig
21 offered and the question this time was identify
22 any road races or other public events in the
23 Town of Durham excluding events at UNH which the
24 town believes may be impacted by construction

1 and operation of the project.

2 And his response was that there are
3 typically between 30 and 40 road races and
4 public events that occur during the course of a
5 calendar year off the UNH campus, and then he
6 has a similar answer here about the impact of
7 the Project would depend on a number of
8 variables.

9 Do you see anything in this response that
10 you would disagree with?

11 A No. It was consistent with my understanding of
12 what occurs in Durham and in the area of the
13 four Project communities. We discussed a number
14 of those in the report which are listed in the
15 report, and there's also been an effort on the
16 part of the SRP outreach staff to reach out to
17 bicycle clubs to running clubs and others who
18 might be involved in helping organize and
19 sponsor events to work directly with them in
20 addition to working with contacts at the town
21 and with UNH.

22 So they are committed to having good
23 communications and outreach with anyone involved
24 with an event across the Town of Durham and on

1 the UNH campus.

2 Q But you didn't disagree with Mr. Selig that some
3 of those events could clearly be impacted
4 depending on the variables that he cited?

5 A It depends. I would note that most of the
6 running races are held on Sunday and sometimes
7 on Saturdays for the major events, and while
8 there may be construction on some Saturdays,
9 they'll likely not be constructing on Sundays
10 for the most part unless it's really unusual
11 circumstances.

12 But whenever that does happen it's the
13 intent of the project to coordinate with the
14 community to make sure that there are no
15 effects, and the staff, neither the staff nor
16 those involved in construction want to have any
17 problems or issues or interfere with some of
18 these nice activities that occur.

19 Q As a former Chair of this Committee, would you
20 agree that one way to gauge the level of
21 interest in a Project is how many Intervenors
22 there are?

23 A No.

24 Q You would not.

1 A No.

2 Q So you think that if there are fewer Intervenors
3 there could be the same amount of interest in a
4 Project as if there were say 15 or 20?

5 A I wouldn't try to quantify it. There may be
6 individual interests, and so it depends project
7 by project. I wouldn't draw any conclusions.

8 Q Okay. I'm looking at Exhibit 146. Page 15.

9 A Yes.

10 Q Line 16. Where you compare this Project to the
11 MVRP, the Merrimack Valley Reliability Project.
12 Do you know how many Intervenors there were in
13 that Project?

14 A Not many. I believe there was one private
15 individual. I believe the four towns elected
16 not to intervene as an approach to working
17 cooperatively with the Applicant.

18 Q And did that docket involve a mile-long
19 underwater crossing of New Hampshire's largest
20 estuarine system, one which we have heard is a
21 National Treasure, an Estuary of National
22 Significance under Section 320 of the Clean
23 Water Act?

24 MR. NEEDLEMAN: Objection.

1 Q And a valuable resource to the State? Was that
2 part of the Merrimack Valley Project?

3 PRESIDING OFFICER WEATHERSBY: Attorney
4 Patch, there's been an objection to your
5 question.

6 MR. PATCH: I hadn't finished my question
7 before he objected.

8 MR. NEEDLEMAN: I'm going to object. That
9 was testimony.

10 MR. PATCH: It was not testimony. It was a
11 question.

12 PRESIDING OFFICER WEATHERSBY: There was a
13 lot in there about the quality --

14 MR. PATCH: Okay. I'll ask them one at a
15 time.

16 BY MR. PATCH:

17 Q Did that docket, the Merrimack Valley Project,
18 involve a mile-long underwater crossing of New
19 Hampshire's largest estuarine system?

20 A No. It did not.

21 Q Did it involve an estuarine system that is a
22 National Treasure?

23 A No. It did not.

24 Q Did it involve an estuarine system that is of

1 national significance under Section 320 of the
2 Clean Water Act?

3 A No. It didn't.

4 Q How many historical resources were impacted in
5 the Merrimack Valley docket? Do you have any
6 idea?

7 A I can't recall, but there are a number of
8 historic resources in that area.

9 Q Do you know if there are any HVTL districts that
10 are comparable to the one in Newington?

11 A I didn't try to make a comparison, but I do know
12 that they work very cooperatively, and in fact,
13 at the conclusion of the Project they were
14 complimented for their work in working with the
15 Londonderry Historical Society and actually
16 donated, I believe, some lumber for one of their
17 restoration projects.

18 So there was a keen awareness of historic
19 resources, keen awareness of the Scenic Byway
20 that existed there and crossed the right-of-way.
21 And the primary purpose of my including MVRP was
22 to highlight what is located a little further
23 down in this section relative to the fact that
24 there was a cooperative approach, and at the end

1 of the day when construction was completed,
2 Eversource was commended by state legislators
3 and local officials and property owners for
4 their efforts to work collaboratively and
5 cooperatively with the town, with the property
6 owners, and others to complete the Project
7 successfully.

8 Q But again, there was only one Intervenor in that
9 Project, right? There were no towns --

10 A I don't think the number of Intervenors dictated
11 the quality of the work that was done to work
12 collaboratively and cooperatively with the
13 communities.

14 Q I mean, I wasn't questioning that. I was trying
15 to point out the differences. You know,
16 wouldn't you admit there are significant
17 differences between the two projects?

18 A Some parties take a different approach to
19 achieving their goals.

20 Q Well, if some parties believe that the cable
21 should not go under Little Bay, how would you
22 suggest that they go about trying to do that?

23 A I'm suggesting that there are many, many avenues
24 to be used. There's a public permitting process

1 involving multiple state and federal agencies
2 with opportunities to be heard, and regardless
3 of whether or not this was a SEC proceeding
4 there are ample opportunities for that kind of
5 input and collaboration to occur.

6 Q Now, in deciding whether to grant a Certificate,
7 this Committee must make the finding that we
8 referred to before that the Project will not
9 unduly interfere with the orderly development of
10 the region with due consideration having been
11 given to the views of municipal and regional
12 planning commissions and municipal governing
13 bodies, correct?

14 A Yes.

15 Q So if a Municipal Planning Commission or
16 governing body or Regional Planning Commission
17 disagrees with your conclusion on whether the
18 Project unduly interferes with the orderly
19 development of the region, how should the
20 Committee handle that? How should they weigh
21 that?

22 A It's up to the Committee.

23 MR. NEEDLEMAN: Objection. That calls for
24 a legal conclusion.

1 MR. PATCH: Well --

2 A I'm just suggesting that it's up to the
3 Committee.

4 Q Okay.

5 PRESIDING OFFICER WEATHERSBY: He answered
6 it.

7 BY MR. PATCH:

8 Q I want to show you an exhibit that has been
9 premarked as TD-UNH 23, and this is a, the first
10 page is actually an email to Pam Monroe from
11 Cynthia Copeland who is the Executive Director
12 of the Strafford Regional Planning Commission.
13 Do you know who she is?

14 A Yes, I met with her and her staff about the
15 Project before I completed my report.

16 Q And attached to that email is a letter to Mr.
17 Selig, the Town Administrator in Durham. Have
18 you reviewed that letter?

19 A Yes.

20 Q And is that the letter that you cited on page
21 13, line 14 of your testimony? Exhibit 146?

22 A I haven't seen it, but I assume so.

23 Q Now, she cites to the fact in that letter that
24 over the course of the last decade there's been

1 a concerted effort by state agencies, regional
2 entities and local municipalities to protect the
3 estuary in the face of increasing development
4 pressure. Are you aware of that concerted
5 effort?

6 A Yes. I was involved in that effort as the DES
7 Commissioner for 12 years, as the former
8 Director of State Planning, and as the regional
9 Director of the EPA.

10 Q In your testimony, page 13, line 16, you cited a
11 November 2016 report, I think this was where you
12 were discussing contacts with Ms. Copeland.
13 There's actually a 2018 report which has been
14 premarked as CLF Exhibit 22 that I just want to
15 call up here and ask if you have looked at that.
16 It's the 2018 State of Our Estuaries Report.
17 Does that look familiar to you?

18 A Yes. I have a copy of it, but I haven't read it
19 cover to cover.

20 Q And this is one that I think is updated every
21 few years or so. Isn't that? So there may have
22 been earlier versions?

23 A Yes.

24 Q And I just want to quote to you something that

1 appears on this, it's --

2 A Other than Rachel?

3 Q Yes. It's on electronic page 2, and it says,
4 quote, "Our estuaries have declined due to
5 stress. And they're losing reliance -- " I'm
6 sorry. I'm not reading it correctly. "They are
7 losing resilience to sustain themselves in the
8 face of growing pressures."

9 Took me a while, but did I read that
10 correctly?

11 A I don't know. I can't see it on the screen.

12 Q Okay. I mean, it's, I don't know if you can see
13 where my --

14 A Oh, yes. Now I see it. Yes.

15 Q It's a pretty short statement. Do you disagree
16 at all with that statement?

17 A I'm not sure. In terms of growing pressure,
18 it's not necessarily defined here although it
19 relates to generally development, especially
20 housing development in the area, in the estuary,
21 and the increased use of the ecosystem over
22 time.

23 Q Now, back to the letter that Ms. Copeland wrote
24 to Mr. Selig, and in the next to the last

1 paragraph, she talks about how the report which
2 she's referring to, which I believe is the one
3 that we just looked at, shows a future with
4 healthy habits, and one in which those habits
5 are lost by 2025. Do you see that?

6 A Habits or habitat?

7 Q Sorry. I'm having a problem here. Habitat,
8 yes. Do you see that?

9 A Yes.

10 Q Do you have any reason to disagree with that?

11 A There certainly is stress in terms of habitats
12 due to a wide variety of factors that are
13 described, some of which are described here and
14 others that are described elsewhere in the
15 report and other documents. There are a wide
16 range of issues that can affect that habitat
17 over time.

18 Q She also notes that physical or human activities
19 like dredging are identified as a stressor that
20 may have a negative impact on key habitats due
21 to suspended sediments.

22 A Yes. This was essentially the same sentence
23 that Cynthia Copeland used in drafting her
24 letter about the importance of ensuring that the

1 crossing of Little Bay is done in an
2 environmentally sound manner consistent with the
3 permit requirements and their conditions that
4 are in the DES permit.

5 Q I mean, she wasn't aware of those conditions
6 when she wrote this letter, was she?

7 A No, but I'm saying that that, the comment that
8 she's making speaks to the fact that there needs
9 to be careful review of the potential impacts
10 associated with projects and that that includes
11 not only underwater transmission line projects
12 but underwater water supply projects or sewer
13 projects or dredging by a town or state agency
14 at a boat ramp area or dock area. There are a
15 number of direct impacts and then there's the
16 nonpoint source issues associated with general
17 development in the estuary on land which has
18 become an increasing concern.

19 Q Now, in your Supplemental Testimony, I'm looking
20 at page 13, lines 19 to 22, you indicate that
21 you think the method of the installation of the
22 cable in Little Bay has been the subject of
23 substantial study and careful planning. So is
24 it fair to say that you're not concerned about

1 suspended sediments impacting on key habitats?

2 MR. NEEDLEMAN: Objection. I think this is
3 beyond the scope of the witness's testimony on
4 orderly regional development. This is all
5 environmental issues.

6 MR. PATCH: Well, I just quoted the
7 statement that he made in the testimony. I
8 think it's directly relevant to that. He
9 referred to the method of installation of the
10 cable in Little Bay.

11 PRESIDING OFFICER WEATHERSBY: I'll
12 overrule the objection. It does refer to that
13 about suspended sediments and et cetera, so you
14 can answer the question to the extent you know.

15 BY MR. PATCH:

16 Q Want me to repeat it?

17 A Yeah, repeat the question, please.

18 Q Referencing that section of your testimony, I
19 just asked whether you were concerned about
20 suspended sediments impacting on key habitats.

21 A Obviously, that's a consideration for any
22 environmental agency to, review. Whether it's
23 in a lake or river or in the estuary, and there
24 are many instances in which DES and the other

1 state and federal agencies that have
2 jurisdiction associated with these issues need
3 to review and consider, and it's their job to
4 ensure that it's done in an environmentally
5 sound manner, and they have regulatory authority
6 and enforcement powers to ensure that it is done
7 in an environmentally sound way consistent with
8 federal and state permitting requirements.

9 Q I would imagine as part of your analysis for
10 this Project and in preparing your testimony you
11 would have reviewed the Site Evaluation
12 Committee rules? Is that fair to say? Or at
13 least relevant ones?

14 A Yes.

15 Q I don't read them all cover to cover. Maybe you
16 do. But the one I'm focusing on is Site 301.09,
17 and it's says effects on orderly development of
18 the region. That sounds like one you probably
19 would have looked at.

20 And that one says each application shall
21 include, and if you leave out a number of
22 intervening terms, master plans of the affected
23 communities.

24 Now, I didn't see anywhere in the

1 Application that the actual master plan for
2 Durham was included. Do you recall differently?

3 A There was a detailed review, and I believe a
4 link, direct link, to the master plan for anyone
5 reading the report.

6 Q Okay. So you're saying you included it through
7 a link?

8 A I believe so. If the SEC would like to have all
9 of the master plans provided as a paper copy, we
10 can do that, but given that it's available
11 online and we have the ability to link to it,
12 that seems prudent.

13 Q I want to read you a few excerpts from the
14 Durham master plan. They're found in TD-UNH
15 Exhibit 24, and I'm not going to read them all
16 because it would take up a lot of time. But
17 there's a few I just wanted to focus on. And
18 there's one right in the middle of the page I
19 have up on the screen.

20 It says Durham is fortunate to be located
21 next to the Great Bay Estuary, a distinctively
22 ecological and cultural resource in the Seacoast
23 area that has been celebrated by Durham
24 residents over time for its scenic beauty and

1 has been a key element in shaping the Town's
2 history. Great Bay was and continues to be
3 extremely important to the regional economy and
4 is an invaluable resource for the town.

5 Did I read that correctly.

6 A I believe so. Yes.

7 Q And not that I would expect you to have recalled
8 reading that when you looked through the master
9 plan, but do you have any reason to disagree
10 that that's part of the Durham master plan?

11 A I would anticipate that that was taken from the
12 plan and that you didn't write that yourself.

13 Q And would you have anything to disagree with in
14 that statement?

15 A No. I think it's a very positive statement.

16 Q And then on page 3 of this exhibit, I want to
17 focus on a statement that says Durham is a
18 community with abundant natural resources scenic
19 views of Little Bay, the Oyster and Lamprey
20 Rivers and numerous farms, forests, wetlands and
21 conserved properties contribute to Durham's
22 special identity.

23 Do you have any reason to disagree with
24 that?

1 A No.

2 Q And on page 4, Durham's location on the Great
3 Bay Estuary, its proximity to the Seacoast and
4 its diverse natural resources are defining
5 features of the community.

6 Sounds like something that would be in the
7 master plan.

8 A Yes. I did review the, both the previous master
9 plan as well as the current master plan as part
10 of the preparation of the report.

11 Q Then and page 6 under Wildlife and Wildlife
12 Habit says tidal estuaries, fresh water streams
13 and salt and fresh water wetlands serve as
14 critical habitats and greenways. Wildlife
15 corridors and greenways provide travel ways and
16 migratory routes between habitat areas and also
17 support many recreational opportunities
18 throughout the community.

19 A Yes.

20 Q And then finally, on page 8, I just want to read
21 to you a little bit of this description of Great
22 Bay. It says Great Bay is New Hampshire's
23 largest estuarine system, salt water and fresh
24 water, and is the drainage confluence of three

1 major rivers, the Lamprey, Squamscott and
2 Winnicut. In recent years, recreational
3 opportunities and tourism-related activities
4 have become a much larger contributor to the
5 region's economy.

6 And I'll leave it at that. I don't need to
7 read any more from that. But again, something
8 you would have reviewed at some point
9 presumably, correct?

10 A Yes, I did review it.

11 Q And I guess I'm wondering if you understand and
12 appreciate the value that the Town of Durham
13 puts on historic and natural resources including
14 Little Bay in their community as well as the
15 economic value that these bring to Durham. Do
16 you understand that, appreciate that?

17 A Yes. I have a keen understanding of the Town of
18 Durham as a whole, as well as the importance of
19 Little Bay and the rivers that exist within the
20 community, and noted the recreational
21 opportunities in the report that was prepared on
22 tourism and recreation.

23 Q And can you understand why residents in Durham,
24 not all residents but certainly quite a few,

1 would be concerned about the impacts this
2 project may have on those resources?

3 A Yes. They would want to ensure that it was
4 done, any crossing of Little Bay was done in an
5 environmentally sound manner.

6 Q Not just the crossing of Little Bay though.
7 It's also other resources within the town of
8 Durham that could be impacted by the Project.
9 Fair to say?

10 A Yes.

11 Q Okay. Thank you, Mr. Varney. I appreciate your
12 answers.

13 A Thank you.

14 PRESIDING OFFICER WEATHERSBY: Thank you.
15 We'll next have questions from Ms. Ludtke.
16 Conservation Law Foundation.

17 MS. LUDTKE: Madam Chair, I expect my
18 questions will go beyond the 10-minute estimate
19 that is in the Status Report, and it seems that
20 we are not going to finish with the witness
21 today so I ask you if you want to adjourn and
22 have the witness come back, I don't know how
23 late you plan on going, but it doesn't seem to
24 me as if we are going to finish today.

1 Q As a member of CLF. Not as an attorney.

2 A Great.

3 Q Now, I apologize if I am going to rehash some of
4 the questions that Attorney Patch asked you, but
5 for the, right at the beginning I looked at your
6 testimony, and you stated that it would be in
7 two subjects. It would be an opinion on the
8 impact of the project on land use, and it would
9 be an opinion on orderly development.

10 A Yes.

11 Q And I'm assuming there are references later in
12 your testimony that in your view land use
13 includes the use of Great Bay and Little Bay.

14 A I did. I was all inclusive in my report. Yes.

15 Q So land use really does include water use as
16 well.

17 A Yes. As I indicated previously, I seriously
18 considered recreational activity within Little
19 Bay as well as commercial activity that uses the
20 bay.

21 Q I just wanted to clarify that because it does
22 say land use.

23 Now, turning to your Supplemental
24 Testimony, Exhibit 146, and on page 4 of that

1 testimony, you list mitigation and minimization,
2 some of the efforts you undertook to do that on
3 the Project, and what I'd like to do is have you
4 take a look at line 11. It says refined
5 construction plans for the crossing of Little
6 Bay. And my question is can you describe all
7 the refinements you made in the construction
8 plans for the crossing of Little Bay that would
9 have been designed to avoid minimize or
10 mitigation potential effects?

11 A I don't have your materials on my screen. I'll
12 need to apparently look this up. Where is it
13 again?

14 Q It's on page 4 of your Supplemental Testimony
15 which is Exhibit 146. And it's line 11. And
16 all I'm interested in is the statement of
17 refining construction plans for the crossing of
18 Little Bay.

19 A I mentioned that there were some revisions in
20 the plans which are referred to in the
21 Application. I believe there's a two-page
22 summary of changes that were made overall for
23 the Project. Are you referring to the
24 construction plans for the crossing of Little

1 Bay?

2 Q That's what I'm interested in, and my question
3 was, and I'll repeat it, if you could describe
4 all the refinements that you made to those
5 construction plans for the crossing of Little
6 Bay.

7 A I didn't make any refinements. The Project
8 engineers and the Applicant did, and they've
9 been working earnestly with DES and the federal
10 and state agencies with jurisdiction on the
11 crossing and refining their plans for the
12 crossing to meet all of the requirements and
13 needs that have been expressed by the state and
14 federal agencies that have that jurisdiction to
15 issue the permit with all the conditions.

16 Q Well, obviously, I didn't expect that you were
17 the one that actually refined those plans.

18 A Right.

19 Q But if you could describe what those refinement
20 have been?

21 A I haven't been directly involved with that.
22 I've been aware of the fact that there was an
23 ongoing dialogue with the Applicant and the
24 agencies on that crossing. It was a process

1 that they went through, and I know that the
2 agencies have imposed a number of conditions
3 upon the Applicant, but I was not involved in
4 the details of that. I assumed that the state
5 and federal agencies will ensure that whatever
6 is done properly protects human health and the
7 environment.

8 Q Well, I understand why you'd have great
9 confidence in at least the state agencies, but I
10 think that's not my question. Can you name a
11 single refinement, just one refinement to the
12 construction plans that has been done for the
13 crossing of Little Bay?

14 A I know that they've discussed a number of issues
15 about monitoring and time of year restrictions
16 and a whole host of other issues, but I haven't
17 been directly involved in that.

18 Q Are these changes, if you will, or monitoring or
19 time of year constructions refinements or were
20 they part of the original permit?

21 A Again, there's been a long process that's taken
22 place in discussions with the agencies over
23 time, and responding to those questions and
24 needs. I was not directly involved in that.

1 That was addressed, I believe, with the
2 Environmental Panel earlier in this proceeding.

3 Q But it's fair to say that you, individually,
4 testifying today, don't know of any refinements
5 to the construction plans that have been made
6 for the crossing that are designed to avoid,
7 minimize or mitigate potential effects? I'm
8 asking about your knowledge.

9 MR. NEEDLEMAN: Objection. It
10 mischaracterizes the testimony. He previously
11 answered that he did and he named them.

12 PRESIDING OFFICER WEATHERSBY: Objection is
13 sustained.

14 Q All right. Let me move on to Section 5. I
15 mean, page 5, of your Original Testimony and
16 that's Exhibit 3. And the sentence I'm
17 interested in is starts at paragraph 5 and it
18 talks about 1.8 miles of the Project route will
19 be placed underground and underwater, and the
20 sentence ends with this will result in no
21 permanent impact on adjacent land uses. Do you
22 see that?

23 A Yes.

24 Q And what I'm interested in in that is the

1 placement of the concrete mattresses, and when
2 you say permanent impact on adjacent land uses,
3 is that referring to residences or public use of
4 that area and not the wetland impact of the
5 placement of those mattresses?

6 A I don't recall.

7 Q Well, your Application or I should say
8 Eversource's Application has identified the
9 wetlands impact of the placement of those
10 mattresses as permanent impact. You're aware of
11 that.

12 A Yes.

13 Q So according to Eversource's own Application,
14 the placement of those mattresses will have a
15 permanent impact on the wetlands.

16 A It says on an adjacent land uses. I don't
17 believe that there will be permanent impact on
18 other land uses that are adjacent to the route.

19 Q I think that was the question I asked you first.
20 Whether you made a distinction between the
21 permanent impact to wetlands versus the
22 permanent impact to whether abutters or public
23 would use that area.

24 A Again, this was a description of underground

1 areas where it says there doesn't appear to be
2 any permanent impact on adjacent land uses.

3 Q Do you know approximately how many concrete
4 mattresses will be installed at this point
5 according to the Project documents?

6 A I know they're about 8 feet by 20 feet by 9
7 inches, I believe. I forget the exact number
8 that would be placed there. I think there's
9 uncertainty about the actual number that will be
10 necessary given that they're likely to get
11 additional depth which will enable them to
12 reduce the area that would need to be covered as
13 required by the National Electric Code.

14 Q Well, I asked you about the proposed project
15 because the proposed project has a projected use
16 of these mattresses, and the question I have is
17 according to those project documents, what's
18 your estimate of the number of mattresses that
19 will be placed there?

20 A I forget. I looked at maps of their location,
21 and I heard how many there would be, I believe
22 at one point, and I can't off the top of my head
23 recall.

24 Q So you're prepared to testify that the placement

1 of mattresses would not have a permanent impact
2 on adjacent land uses without knowing what the
3 number, how many mattresses will be placed in
4 Newington?

5 A Again, I know that they're there. I know the
6 area of coverage that's been prepared and was
7 submitted. I just don't know the actual number.
8 I didn't count them, and I can't recall the
9 exact number, but I do know the area that is
10 proposed for potential covering depending on the
11 depths that they actually achieve.

12 Q So you feel confident in your testimony that it
13 will not permanently impact adjacent land uses
14 without knowing how many mattresses will
15 actually be put there.

16 A I don't think the number will have any
17 significant, make any significant change in the
18 adjacent land uses.

19 Q Well, if I told you that according to my
20 calculations it appeared that approximately 60
21 mattresses would be installed in that area,
22 would you think that that was consistent with
23 your understanding?

24 A I'm not going to speculate.

1 Q Well, let me ask you this hypothetically. What
2 if I told you a hundred mattresses would be
3 installed in that area? Would that affect your
4 opinion that it wouldn't permanently impact
5 adjacent land uses?

6 A The number of mattresses wouldn't be the
7 determination. I would be looking at the plans
8 and to look at the area covered. I don't know
9 the exact square footage. But I did review the
10 plans and the area in which they're proposed to
11 be located and that was sufficient for my
12 review, not to memorize the number of
13 mattresses.

14 Q Well, I'm not asking you that you memorize the
15 number of mattresses. I'm trying to understand
16 how you reach the opinion that these mattresses
17 would not permanently impact adjacent land use,
18 and it seems that the quantity might be one
19 factor in reaching that opinion. Am I correct
20 in understanding that the quantity of mattresses
21 is not a factor for you to reach that opinion?

22 A It would be the area covered, not the quantity.

23 Q Well, the quantity would relate to the area
24 covered, would it not?

1 A Yes, it could.

2 Q Now, I think when you told me the dimensions of
3 the mattresses, you said that the mattresses
4 were nine inches in depth; is that correct?

5 A Again, off the top of my head, I think they were
6 about that. Yes.

7 Q Were you here for the testimony a few days ago
8 that the way in which the mattresses would be
9 placed in the intertidal area would be a sort of
10 a stacking method or they would be placed on top
11 of one another but not building a staircase? In
12 other words, the nine-inch depth could actually
13 go to 18 inches? I believe that's a fair
14 characterization of the testimony that was
15 offered. Are you aware of that?

16 MR. NEEDLEMAN: Objection. That actually
17 mischaracterizes the record.

18 MS. LUDTKE: Madam Chair, I do recall
19 testimony that it would be 18 inches, and I do
20 recall Ms. Duprey asking a question about the
21 stacking and the answer that was given to her
22 related to they wouldn't be stacked like
23 staircases. So that's my recollection of the
24 testimony, and I believe the witness said that

1 18 inches would be the highest level that they
2 would go to.

3 PRESIDING OFFICER WEATHERSBY: Do you
4 recall that?

5 MS. DUPREY: I do recall it, but it was
6 corrected by a succeeding witness and the
7 mattresses are not going to be stacked.

8 PRESIDING OFFICER WEATHERSBY: So the
9 testimony, as we understand it, is the
10 mattresses are not going to be stacked. They're
11 going to be side-by-side and laced. Remember
12 that testimony?

13 MS. LUDTKE: I do recall testimony that it
14 would be 18 inches in some places as a maximum
15 height. I can check the transcript.

16 MS. DUPREY: I think you should check the
17 transcript. I think it was later corrected by
18 another witness.

19 BY MS. LUDTKE:

20 Q Mr. Varney, are you aware now that according to
21 the present plan to use the concrete mattresses
22 the area covered will be approximately
23 8,600-plus square feet?

24 A Again, I didn't memorize the numbers, but I know

1 where they're proposed and the extent of the
2 area that was shown.

3 Q Do you know what the number provided in the
4 square footage number provided in the original
5 permit was?

6 A I can't recall. I was not involved in the
7 permit discussions.

8 Q If I told you it was about 5,300, would that be
9 a fair estimate or do you not know?

10 A I don't know.

11 Q Do you know whether in the amended permit the
12 estimate for concrete mattresses is increased
13 over 50 percent?

14 A I don't recall that discussion.

15 Q Well, let me ask you to take a look at page 31
16 in your report, and I'd like to call your
17 attention to the fourth paragraph down.

18 PRESIDING OFFICER WEATHERSBY: Ms. Ludtke,
19 is that Applicant's Exhibit 146?

20 MS. LUDTKE: Yes. It's the report which I
21 do think is, yes, it's 146.

22 PRESIDING OFFICER WEATHERSBY: It's the
23 report portion of that? I'm sorry.

24 MS. LUDTKE: Exhibit 146.

1 PRESIDING OFFICER WEATHERSBY: And the page
2 again is?

3 MS. LUDTKE: And the page again is page 31.

4 A You're referring to the paragraph that explains
5 the Prefiled Testimony of William Wall?

6 Q Yes, and let me call your attention to the
7 sentence there. It talks about generally
8 construction activities and it refers to, and
9 I'll read it, installing concrete mattresses as
10 needed. Do you see that?

11 A Yes.

12 Q So with the current, with Eversource's current
13 estimate of approximately 8600 square feet for
14 the concrete mattresses, what happens in your
15 view if Eversource gets into the area and they
16 need more concrete mattresses than that? Is
17 that, is it your opinion that those mattresses
18 will be installed as needed?

19 A I think that was referring to the fact that
20 they'll try to minimize the impact, and that as
21 they are able to achieve greater depths, less
22 surface area for the concrete mattresses would
23 be used as a way to minimize impact.

24 Q So that sentence there talking about

1 construction activities that states that
2 essentially concrete mattresses will be
3 installed as needed is really referring to a
4 minimization of the installation of concrete
5 mattresses?

6 A Yes. My guess is that they would only use as
7 many as are needed to meet code and to insure
8 public safety and proper protection of the
9 cables that have been installed.

10 Q Do you know whether the location, the specific
11 location where those mattresses will be
12 installed, the specific locations, I should say,
13 are known as this time? Does Eversource know
14 where it's going to be installing the concrete
15 mattresses? Specifically. I'm talking about
16 specific location.

17 A I know the general area where they've depicted
18 them to be. Whether or not they need to move
19 them slightly as part of their construction
20 process, I don't know. That would be a very
21 good question for the Construction Panel.

22 Q Well, I think it was actually asked of the
23 Construction Panel.

24 A Okay.

1 Q And the answer as I recall it was they didn't
2 know exactly where they were going to be putting
3 them.

4 A Okay.

5 Q Now, hypothetically, if Eversource got into this
6 and found out that they needed more mattresses
7 than the 8600 to achieve the 42-inch cover, are
8 you aware of any alternatives other than the use
9 of concrete mattresses that could be employed to
10 get the 42-inch cover that's required?

11 MR. NEEDLEMAN: Objection. It's beyond the
12 scope of this witness's testimony. That was a
13 Construction Panel question.

14 MS. LUDTKE: Madam Chair, he testified the
15 concrete mattresses weren't an issue, and I
16 think there's a tremendous amount of uncertainty
17 around the concrete mattresses right now.

18 PRESIDING OFFICER WEATHERSBY: But the
19 question you asked him concerned construction.

20 MS. LUDTKE: It concerns minimization of
21 impact, and it concerns his testimony that
22 there's no permanent impact to adjacent land
23 uses from the concrete mattresses, and that's
24 his opinion.

1 PRESIDING OFFICER WEATHERSBY: I'm going to
2 sustain the objection and try to tie it back to
3 land use.

4 BY MS. LUDTKE:

5 Q Now, Mr. Varney, you agree that the installation
6 of a concrete mattress in the intertidal area
7 constitutes a permanent installation?

8 A Yes.

9 Q And are you -- well, let me ask you this.

10 Do you know the ownership of the intertidal
11 area? Who owns the intertidal area?

12 A The State of New Hampshire.

13 Q Are you aware of any process that's in the law
14 or by statute or that you had occasion to use in
15 your tenure as Commissioner of Department of
16 Environmental Services that relates to obtaining
17 a permanent right to state land? Permanent
18 right to occupy state land?

19 A Yes.

20 Q And what is that process?

21 A There's a process with the New Hampshire PUC,
22 first of all, for crossings. And then depending
23 on the legal review, there's the potential for a
24 request being submitted to Governor and Council,

1 if that's necessary, deemed to be necessary.

2 And perhaps as part of that process through the
3 Council on Resources and Development or CORD
4 which I previously chaired.

5 Q And are you aware of any efforts made to utilize
6 that process for the concrete mattresses?

7 A I'm not aware of that. No. That's a legal
8 question. I haven't been in any discussions
9 with anyone on that.

10 Q Well, you're knowledgeable about the process?

11 A Yes. Yes. And the circumstances can be
12 different. And that's why it needs a legal
13 review.

14 Q Let me show you what has been marked as CLF
15 Exhibit 23. That I represent to you is a letter
16 from the Attorney General's office to Maureen
17 Smith. Have you ever seen that exhibit?

18 A No. I haven't. This is a 2012 letter addressed
19 to Maureen Smith.

20 Q And let me read you what the letter says. It
21 says in the second paragraph, the land beneath
22 tidal waters is owned by the state subject to
23 the public trust. You're aware of that.

24 A Yes. Yes, and to shorten things, I am aware of

1 a natural gas line that had been suspended on a
2 bridge, a state bridge, between Dover Point and
3 Newington, and the DOT in the construction of
4 the new bridge wanted, obviously, needed the
5 bridge, the line to be removed that was
6 suspended to the state's bridge and they then
7 decided given that location and the specifics of
8 that location they were able to complete a
9 directional drill in that specific location and
10 went through that process and received G&C
11 approval is my understanding.

12 Q Well, let me read you the second sentence here
13 anyway. And the second sentence says in order
14 to legally drill through and under the submerged
15 land in question, the driller would have to
16 first obtain a grant of easement to acquire a
17 property right in the submerged land which would
18 be, remain subject to the public trust. Is that
19 consistent with your understanding?

20 A Again, I'm not providing legal advice or
21 interpretation here. I think I answered the
22 question about the process that needs to be
23 evaluated, if it hasn't been already. I would
24 suspect it's been evaluated.

1 Q And the land that the mattresses will be placed
2 upon is subject to the public trust.

3 MR. NEEDLEMAN: Objection. This now calls
4 for a legal conclusion, and it's also well
5 beyond the scope of this witness's testimony.

6 MS. LUDTKE: He has testified he's familiar
7 with the process. He's also said that the land
8 underlying Great Bay is owned by the State, and
9 he testified to knowledge of the public trust,
10 and I am asking him to confirm that the land
11 that he is well aware of the location on is
12 subject to the public trust.

13 PRESIDING OFFICER WEATHERSBY: That calls
14 for a legal conclusion so I'm going to sustain
15 the objection.

16 BY MS. LUDTKE:

17 Q Is the land where the mattresses will be
18 installed upon located in Little Bay?

19 A Yes.

20 Q Is Little Bay a public water?

21 A Yes.

22 Q Is the land underneath Little Bay owned by the
23 State of New Hampshire?

24 A I believe so. I, again, I haven't looked at the

1 legal details of this particular crossing. And
2 should there be a need for this kind of process
3 I'm sure the Applicant would pursue it if that
4 was legally required in this instance.

5 Q And with respect to the public trust, are you
6 familiar with that doctrine generally?

7 A Yes. Generally.

8 Q Does that give the public the right to use and
9 enjoy public waters?

10 MR. NEEDLEMAN: Same objection. Calls for
11 a legal conclusion.

12 MS. LUDTKE: He testified to knowledge of
13 the public trust. He was Commissioner of the
14 Department of Environmental Services. He has a
15 familiarity with it which he testified to.

16 PRESIDING OFFICER WEATHERSBY: He did say
17 that he was generally familiar with it so he can
18 answer the question. Go ahead.

19 A The question again was what?

20 Q The question is what -- I'll ask it generally.
21 What rights does the public have under the
22 public trust doctrine to use public waters?

23 A They need a permit from DES, from the state
24 agency, and they need PUC approval, and if

1 necessary they may need other approvals if,
2 based on legal review, that's warranted.

3 Q Well, actually, I wasn't asking you what the
4 Applicant needs. I'm asking, I was asking what
5 rights the public has to use and enjoy public
6 waters and that, specifically boating, swimming,
7 recreation. Are you aware of those rights?

8 A I'm aware of those recreational activities which
9 occur to a certain degree at certain times
10 within Little Bay.

11 Q And I recall Attorney Patch asking you about the
12 use of Little Bay for boating.

13 A Yes.

14 Q And I recall your testimony being that it would
15 be unlikely to interfere with use for boating.
16 Is that correct?

17 A Yes.

18 Q And according to the addendum of Mr. Raphael
19 that you cited in your testimony, the concrete
20 mattresses on the Newington side will extend at
21 a distance of 214 feet away from the shore, and
22 on the Durham side, 102 feet. Is that correct?
23 To the best of your recollection?

24 A Sounds right without checking. Yes.

1 Q Now, is it your testimony that boaters would be
2 unlikely to use the waters that would lie 214
3 feet away from the shore on the Newington side?

4 A I'm not sure I follow your questioning here.
5 It's a tidal estuary so there are large areas
6 that are not navigable during low tide. In
7 fact, some of the boat ramps such as at Adams
8 Point are severely restricted in terms of their
9 use because of that low tide, and so those who
10 are taking part in that kind of activity if
11 they're in a shallow kayak, for example, they
12 would be aware of the tidal influences, the
13 differences in the bottom even, that they need
14 to be cognizant of, and my sense is that there
15 would not be any significant impact on the
16 ability of people to enjoy kayaking along the
17 shoreline, and that for motorboats, much of the
18 activity is within the channel which is a
19 considerable distance out from the shoreline.
20 So looking at it as a whole, I did not see any
21 significant impacts on boating activity that was
22 associated with the placement of nine-inch
23 concrete mattresses on the floor of that area.

24 Q Are you aware of any conditions in the DES

1 permit that specifically address concerns that
2 DES might have had about boating and navigation?

3 A I can't recall.

4 Q And if I told you, I'll read you a condition on
5 the permit. It's Condition number 52, and it
6 it's in the February 28th, 2018, permit. And it
7 states prior to the placement of concrete
8 mattresses in Little Bay, the Applicant shall
9 coordinate with the New Hampshire Division of
10 Ports and Harbors and/or New Hampshire
11 Department of Safety Marine Patrol to determine
12 if the placement of the mattresses creates a
13 navigational hazard which will require
14 navigational marker or markers. If navigational
15 markers are required, then the Applicant shall
16 comply with any requests to install such
17 markers.

18 So you would agree, wouldn't you, based
19 upon that condition, that DES certainly has a
20 concern about boating in the area.

21 A I'm not sure that they're concerned about it,
22 but I think that it's prudent guidance to talk
23 with them about that issue just to make sure
24 that that's covered. Again, I would be

1 surprised if there was any concern about a
2 nine-inch concrete mattress on the floor of the
3 Little Bay.

4 Q Now, I gave you those numbers previously of 214
5 feet and 102 feet. Do you know how much of that
6 area is covered with water during low tide?

7 A I can't recall.

8 Q And low tide varies, and there can be a high low
9 tide or a low low tide; is that correct?

10 A Yes, that's correct.

11 Q And did you have any opportunity to consult with
12 Mr. Raphael on his visual analysis to determine
13 what type of low tide he observed? Because his
14 visual analysis said that he conducted the
15 operations during low tide. Do you know if it
16 was a very low tide or a high low tide?

17 A No. I didn't ask him that question.

18 Q And are you aware of the difference in water
19 depth from, for example, low tide to high tide
20 in that area?

21 A I can't recall the differential. Just like I
22 can't recall the differential in water levels in
23 Lake Winnepesaukee.

24 Q Well, wouldn't the differential in water levels

1 be important in making a decision about whether
2 the mattresses interfered with boating because
3 if the high tide obscured the mattresses from
4 view and a motor boat went over the mattresses,
5 it could certainly damage the motor.

6 A Theoretically, a rock could as well or anything
7 else on the bottom, I suppose, as a theoretical.
8 But again, that calls for just checking in and
9 making sure that there's no concern. I think
10 any permanent installation would likely be,
11 could be marked on the charts as well. So and
12 if buoys were in fact needed for some reason,
13 I'm sure the Applicant would be happy to do that
14 if it was warranted and requested by the
15 agencies.

16 Q Do you know whether these mattresses would be
17 visible at, let's say, mean high tide? Would
18 they be visible?

19 A Yes. I believe they would be.

20 Q And how many of them would be visible? Out to
21 what?

22 A I can't recall. I can't recall.

23 Q Now, I wanted to ask you a couple questions
24 about Mr. Raphael's addendum that you referenced

1 in your testimony. And I'm trying to, I think
2 it's, I think it's in your report here. I think
3 I have it here. Yes. It's your testimony.
4 It's on page 13 of your testimony and it's lines
5 11 through 13, and you reference David Raphael's
6 view analysis in reaching the conclusion that
7 the concrete mattresses would pose a visual
8 impact. It starts on, the sentence I'm
9 interested in starts on line 9 and goes down to
10 line 13.

11 A I think I'm looking at something different than
12 you are. Page 14, did you say?

13 Q It's your Supplemental Prefiled Testimony. It's
14 page 13 of 16, and it's lines 9 through 13.

15 MR. IACOPINO: That's Exhibit 146.

16 MS. LUDTKE: 146.

17 A Yes. That's a quote of David Raphael noting
18 that he did look at it as a visual expert and
19 made this statement.

20 Q Now, I have his analysis here and one question I
21 had is do you know whether at the time he did
22 his analysis he understood that the expected
23 square footage would be well over 8,000 feet and
24 involve approximately 60 mattresses?

1 A I don't know, but I assume he'll be testifying
2 in this proceeding.

3 Q The reason I'm asking you is you appear to rely
4 on his study for your conclusion that it would
5 not have a visual impact.

6 A I didn't conclude anything. I simply stated
7 that he did look at the visibility of the
8 mattresses from the water way and made this
9 conclusion. I was providing it as information.

10 Q Oh, I thought you came out with the opinion it
11 was your opinion that it would not have a visual
12 impact.

13 A I'm stating what he, the expert, stated and
14 wanted the Committee to know that I did consider
15 the addendum that a visual expert provided about
16 that topic from the water way which I was
17 referring to as it relates to use from the water
18 and looking towards the land.

19 Q Do you have an independent opinion other than
20 reliance on Mr. Raphael's analysis regarding
21 whether the placement of the concrete mattresses
22 will have visual impact?

23 A No. I'm not a visual assessment expert, and
24 David is highly qualified, and I simply reported

1 his review.

2 Q So you are not offering any opinion here today
3 that the placement of the concrete mattresses
4 will not have a visual impact?

5 A Again, there will be visibility of the
6 mattresses, but this was his assessment of it
7 from a Visual Assessment perspective.

8 Q But it's not your opinion. I just want to be
9 clear on that.

10 A Yeah. That's David's opinion that I've
11 reported, and I would assume that it's accurate.

12 Q Now, I'd like you to look at page 10, Exhibit
13 146, and I'm interested in the second full
14 paragraph on that page that talks about, and I
15 believe Attorney Patch asked you about that, it
16 talks about the aquaculture in the area?

17 A Yes.

18 Q I believe your opinion is that the construction
19 of the Project may result in short-term
20 temporary impacts, but it won't have a
21 substantial impact on the aquaculture. Is that
22 a fair statement?

23 A I trust the permitting process and the ongoing
24 guidance and oversight that exists with New

1 Hampshire Fish & Game, New Hampshire Coastal
2 Program and others to ensure that resources are
3 protected.

4 Q But similarly to the visual impact, you don't
5 have an independent opinion on whether it will
6 have an impact. What you're doing is
7 referencing other's opinions.

8 A No. I trust them to do their job well.

9 Q You actually haven't done any analysis or study
10 about the issues to see what the impact on
11 aquaculture would be?

12 A No. I didn't do any modeling or anything like
13 that.

14 Q And I'd like to ask you on page 31 about the
15 methods that are proposed for the installation
16 of the submarine cables under the bay, and you
17 refer to jet plow, hand jet and trench.

18 A Where are you now?

19 Q You talk about three methods. It's the --

20 A What page?

21 Q It's page 31. Exhibit 146.

22 A Yes.

23 Q And it's about the, it's the paragraph that
24 starts, probably the fourth paragraph on the

1 page.

2 A Yes.

3 Q And it says three methods are proposed. Do you
4 see that?

5 A Yes.

6 Q And what I wanted to ask you about was the
7 trenching, and do you know whether the trenching
8 will be conducted in any area below the mean
9 high water level?

10 A The trenching for the most part based on my
11 understanding was trenching with the flats in
12 the flats area, but the jet plow process itself
13 is in effect creating a trench. So.

14 Q Well, you're distinguishing between jet plow,
15 hand jet and trenching, and my question relates
16 to the trenching and whether that will be done
17 below mean high water. Are you knowledgeable
18 about that? Can you say yes or no?

19 A I can't recall off the top of my head. I'd have
20 to go back and review my materials.

21 Q And presumably if you can't answer that
22 question, you also can't answer the question of
23 whether the trenches would be subject to the
24 tidal flow?

1 A The trenches when they're being constructed? Is
2 that what you're suggesting?

3 Q Yes. When they're done.

4 A There will be work done in the dry and then they
5 will, obviously, as they move out they'll be
6 working into deeper waters. The net effect of
7 it is they're essentially trenching across
8 Little Bay according to their permits.

9 Q Do you know how large the trenches are proposed
10 to be?

11 A I can't recall the width of them. And I know
12 for depth they're trying to get down to a depth
13 of, I believe it was around four feet. Can't
14 recall the exact number. Again, it wasn't the
15 subject of my testimony. It's a Construction
16 Panel question.

17 Q Now, with the jet plow, at one point in your
18 testimony, I can find it, but you talked about
19 how it's been a longstanding method of
20 installation. Oh, I can find it. It's page 13.
21 Let me read you what it says.

22 It's down on line 19 and it says the method
23 of the installation of the cable in Little Bay
24 has been the subject of substantial study and

1 careful planning, et cetera. Do you see that?

2 A Page 19, did you say?

3 Q No. I think it's page 13 and I'm on line 19.

4 A Oh, I'm sorry. Page 13 of the report?

5 Q No. It's your testimony. Exhibit 146. I'm
6 sorry.

7 A Yes. You're discussing the sentence on page, on
8 line 19 to 22?

9 Q That's correct. Yes.

10 A Yes.

11 Q And you say it's been the subject of substantial
12 study. What studies are you aware of regarding
13 the net plow method of installation?

14 A This is work that I've heard from the staff
15 involved in that who would have been involved in
16 that Project and in that process, people on the
17 environmental panel who have talked about
18 numerous meetings that they've had with DES and
19 others to discuss the Project, with regulatory
20 agencies like the Army Corps of Engineers and
21 others. And that there's been an evaluation of
22 different alternatives over the course of this
23 process and that they provided additional
24 analysis and additional information along the

1 way. It's been an iterative process working
2 with the agencies on that Project. And I don't,
3 I'm not, I wasn't directly involved. I know
4 that it's been an ongoing process with lots of
5 meetings, lots of analysis that's been done to
6 try to satisfy the agencies who want to make
7 sure that they're protecting public health and
8 the environment in Little Bay.

9 Q Do you know how long the jet plow method of
10 installation has been in use?

11 A I didn't study that. No.

12 Q To the best of your knowledge, is it a new
13 method or a very well established method?

14 MR. NEEDLEMAN: Objection. Relevance and
15 beyond the scope of this witness's testimony,
16 and this was the subject of testimony from the
17 Construction Panel.

18 MS. LUDTKE: Madam Chair, he talks about
19 specifically methods of installation in his
20 testimony and testifies about them. I just read
21 you the sentence that I'm asking him about.

22 PRESIDING OFFICER WEATHERSBY: The question
23 that you're asking him does pertain specifically
24 to construction.

1 MS. LUDTKE: I'm trying to understand the
2 basis of the knowledge that he has to make this
3 statement.

4 MR. NEEDLEMAN: It's a general statement,
5 and he just described the basis of his
6 knowledge. He doesn't purport to be a expert on
7 the specific topics.

8 PRESIDING OFFICER WEATHERSBY: That's
9 correct. He talked about how he relied on
10 people on the staff and DES permits and federal
11 and et cetera. He has not done or read the
12 studies that he refers to and that's noted in
13 his testimony.

14 Objection is sustained. Would you move on.

15 BY MS. LUDTKE:

16 Q Do you have any independent knowledge concerning
17 jet plowing based upon any reading or any other
18 investigative work that you've undertaken?

19 A I've seen some material about it, and I work
20 with two former colonels for the Army Corps of
21 Engineers who are in charge of the New England
22 district, and they tell me that it's commonly
23 used and oftentimes recommended by the Corps as
24 the preferred method. Beyond that, I don't know

1 how much more.

2 Q Have you read any studies about it?

3 A No. I've probably reviewed some information
4 about it but nothing at length.

5 Q Nothing further. Thank you.

6 A Thank you.

7 PRESIDING OFFICER WEATHERSBY: Okay. Thank
8 you. That will conclude our examination of this
9 Mr. Varney for today.

10 We are not back as a group until October
11 15th; is that correct?

12 ADMINISTRATOR MONROE: Subject to
13 availability of the Subcommittee which I'll
14 check with tomorrow, we had talked about
15 possibly having a morning session on October 11.
16 That would be a separate notice issued by the
17 Presiding Officer so we'll try and get that
18 wrapped up tomorrow.

19 PRESIDING OFFICER WEATHERSBY: Trying to
20 find a little more time since we're a bit behind
21 schedule. We will be meeting on October 11th,
22 the Committee, at 4 p.m. at the Pease Tradeport
23 to hear any public comments. So if you know
24 anyone who'd like to comment on this, they can

1 contact Ms. Monroe and sign up for a slot or
2 there will be some opportunity for walk-in
3 commenters as I understand it; is that correct,
4 Ms. Monroe?

5 ADMINISTRATOR MONROE: Yes. That's
6 correct. I've had requests, I believe the
7 deadline to sign up that was in the notice was
8 this Friday, September 28th.

9 PRESIDING OFFICER WEATHERSBY: So with that
10 I think we are adjourned for today. See you all
11 in a couple weeks. Thank you.

12 (Whereupon Day 7 Afternoon Session
13 adjourned at 5:38 p.m.)

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C E R T I F I C A T E

I, Cynthia Foster, Registered Professional Reporter and Licensed Court Reporter, duly authorized to practice Shorthand Court Reporting in the State of New Hampshire, hereby certify that the foregoing pages are a true and accurate transcription of my stenographic notes of the hearing for use in the matter indicated on the title sheet, as to which a transcript was duly ordered;

I further certify that I am neither attorney nor counsel for, nor related to or employed by any of the parties to the action in which this transcript was produced, and further that I am not a relative or employee of any attorney or counsel employed in this case, nor am I financially interested in this action.

Dated at West Lebanon, New Hampshire, this 2nd day of October, 2018.

Cynthia Foster, LCR