November 3, 2010-9:10 A.M. Public Utilities Commission
21 South Fruit Street Suite 10
Concord, New Hampshire

RE: SEC DOCKET NO. 2010-01
Application of Groton Wind, LLC, for a Certificate of Site and Facility for a 48 Megawatt Wind Energy Facility in Groton, Grafton County, New Hampshire.
(Hearing on the merits)

PRESENT:
Chairman Thomas B. Getz N.H. Public Utilities Comm. (Presiding)

Robert Scott, Director
Brook Dupee, Bureau Chief
Richard Boisvert
Stephen Perry, Chief
Charles Hood, Admin. Donald Kent, Admin.
Eric Steltzer
Michael Harrington
Air Resources Division - DES Dept. of Health \& Human Serv. N.H. Div. of Historical Res. Inland Fisheries - N.H. F\&G Dept. of Transportation Dept. of Resources \& Econ. Dev. Office of Energy \& Planning -Public Utilities Commission

Counsel for the Committee: Michael Iacopino, Esq.

COURT REPORTER: SUSAN J. ROBIDAS, LCR NO. 44
\{SEC 2010-01\} [DAY 3 - MORNING SESSION]\{11-03-10\}


I N D EX
PAGE
WITNESS: ADAM GRAVEL
DIRECT EXAMINATION:
By Ms. Geiger . . . . . . . . . . . . . 11
CROSS EXAMINATION:
By Mr. Buttolph . . . . . . . . . . . . 13
By Mr. Mazur . . . . . . . . . . . . . 39
By Ms. Mazur . . . . . . . . . . . . . 44
WITNESS PANEL: MICHAEL LEO NANCY RENDALL PETER WALKER

## DIRECT EXAMINATION:

By Mr. Patch . . . . . . . . . . . . . 47
CROSS-EXAMINATION :
By Mr. Mazur . . . . . . . . . . . . . 58
By Ms. Mazur . . . . . . . . . . . . . 65
By Ms. Lewis . . . . . . . . . . . . . 66
By Mr. Mulholland . . . . . . . . . . . 82

INTERROGATORIES BY SUBCOMMITTEE MEMBERS:
By Mr. Harrington, . . . . . . . . . . 97, 120
By Mr. Steltzer . . . . . . . . . . . . 105
By Mr. Scott . . . . . . . . . . . . . 108
By Dr. Kent . . . . . . . . . . . . . . 111, 117
INTERROGATORIES BY SUBCOMMITTEE COUNSEL:
By Mr. Iacopino . . . . . . . . . . . . 111, 119
RECROSS EXAMINATION:
By Ms. Lewis . . . . . . . . . . . . . 121
\{SEC 2010-01\} [DAY 3 - MORNING SESSION]\{11-03-10\}


PROCEEDINGS
CHAIRMAN GETZ: Good morning,
everyone. All right. We'll open the hearing in Site Evaluation Committee Docket 2010-01 concerning the application of Groton Wind, LLC. Let's take appearances, please.

MS. GEIGER: Yes. Good morning, Mr. Chairman, Members of the Subcommittee. I'm Susan Geiger from the law firm of Orr \& Reno. I represent the Applicant, Groton Wind, LLC. And I appear today with my colleague, Doug Patch.

CHAIRMAN GETZ: Good morning.
MR. BUTTOLPH: Good morning, Mr. Chairman. I'm Jim Buttolph. I'm an intervenor from Rumney.

CHAIRMAN GETZ: Good morning.
MS. LEWIS: Good morning. I'm Cheryl
Lewis, intervenor from Rumney.
CHAIRMAN GETZ: Good morning.
MR. MULHOLLAND: Good morning. I'm Evan Mulholland, appearing as Public Counsel. Here with me is Michelle Thibodeau.

CHAIRMAN GETZ: Good morning. And
I'll note for the record that all nine members of the
\{SEC 2010-01\}[DAY 3 - MORNING SESSION]\{11-03-10\}

Subcommittee are present this morning.
Is there anything we need to address before we turn to, I believe we're starting with the direct testimony of Mr . Gravel. Is there anything else we need to address? Mr. Harrington.

MR. HARRINGTON: Just a question, Mr.
Chairman. There was some questions we asked for on Monday having to do with capacity factors and such. I think some of that was going to be confidential. I was just wondering, is there a status of any --

MR. IACOPINO: Yes. There were two parts of that. That's Exhibit 33 that's been reserved. The Applicant has agreed that they will provide an explanation of the calculation of the claimed carbon offset in Mr. Cherian's testimony, and they will not be looking for confidential treatment of that. They've also agreed to provide the profile of the claimed capacity factor, but they will be seeking confidential treatment of that. And they will submit that along with a motion for confidential treatment, to which the other parties will be permitted to object, and the presiding officer will have to rule on whether we'll accept it.

MR. HARRINGTON: Do we have a time
schedule for that?
\{SEC 2010-01\} [DAY 3 - MORNING SESSION]\{11-03-10\}

MR. IACOPINO: That we did not have as of yesterday. I don't know what Mr. Cherian's time frame on that is.

MS. GEIGER: Okay. We're hoping we can get that to you either by the end of the today or tomorrow.

It would also be helpful to know, with respect to the other record requests that have been made by the Committee, when the Committee would expect us to provide answers. Some of them we have and some of them we may need more time.

MR. IACOPINO: Want me to go through them? I was just doing an e-mail to the Chairman.

Do you want me to just go through
them?
CHAIRMAN GETZ: Sure.
MR. IACOPINO: Applicant's 34 which has been reserved is a request for information regarding the amount of money paid to Professor Gittell. I would imagine that's something that be could be obtained fairly soon.

MS. GEIGER: Yes, we have that.
MR. IACOPINO: Okay. Exhibit 35 was reserved for an explanation regarding the size, dimensions
\{SEC 2010-01\} [DAY 3 - MORNING SESSION]\{11-03-10\}
and possible locations for the 115 kV step-up transformer facility to interconnect at 115 kV at the PSNH substation. MS. GEIGER: We're closing in on that. We have some information on that, so we'll be able to provide that probably tomorrow.

MR. IACOPINO: Next one is Exhibit 36
which has been reserved for -- this should be -- your visual expert should be able to get this to you 'cause they're already created. He was going to provide the contrast information sheets that were used in the visual impact assessment.

And the same thing with Exhibit 37. That was reserved for re-drawn cross-section drawings with the line of sight with the correct turbine heights, and the new line-of-sight drawings are required in there. 38 and 39 we have. Those are the project area forms.

Exhibit 40 was reserved for financial
statements. And yesterday $I$ met with the parties, and they've agreed that Iberdrola Renovables, which is the publicly traded company in Spain, that they have audited financial reports which they will submit through the end of fiscal year '09, and then they have two quarters of unaudited statements for 2010 that they will submit. And
those can be submitted without a confidentiality order. They are also prepared to provide unaudited 2009 financial statements for Iberdrola Renewables, Inc. and Groton Wind, LLC, as well as two quarters of unaudited statements for 2010. But they are going to ask the court -- for the court -- they're going to ask the Committee that those financial statements for IRI and Granite -- Groton Wind, LLC be confidential exhibits. I assume there will be a motion that will be filed with those. I don't know what the realistic date for obtaining those financial statements is.

CHAIRMAN GETZ: Does that complete the

## list?

MR. IACOPINO: No, there's two more.
I don't know if the Applicant has an idea when they'll...
MS. GEIGER: I've been told by Ms.
Goland probably not until next week.
MR. IACOPINO: Exhibit 41 has been reserved for the name of the groups that Iberdrola has been cooperating with in doing their bat studies. And I imagine that's something that could be obtained fairly quickly.

MS. GEIGER: Yeah.
MR. IACOPINO: And 42 was reserved for
windrose information.
We had a discussion about this
yesterday. Mr. Steltzer had asked for some additional calculations based on the sound survey. What we've agreed was they're going to provide their windrose information. And as I understand it, that has some calculation by season, to determine if that answers the question raised. If not, we may need to have a further discussion about more confidential information or -- one of the problems there is that the request actually would require further analytics, in terms of taking the windrose and the sound studies and somehow putting them together, which would require further work by their consultant --

MS. GEIGER: Mr. Iacopino, I'm not sure that that information is by season. It's not. It's annual.

MR. IACOPINO: Oh. Didn't -- I thought I was told there was a shift for each month, though.

CHAIRMAN GETZ: Well, let's clarify that off-line. We don't need to get into that detail at this point. I'm just looking for an update.

MS. GEIGER: Okay.
MR. IACOPINO: That's all of the
\{SEC 2010-01\} [DAY 3 - MORNING SESSION]\{11-03-10\}
outstanding reserved exhibits and data requests.
CHAIRMAN GETZ: Okay. All right.
Let's then turn to Mr . Gravel.
(WHEREUPON, ADAM GRAVEL was duly sworn and cautioned by the Court Reporter.)

ADAM GRAVEL, SWORN
DIRECT EXAMINATION
BY MS. GEIGER:
Q. Good morning. Could you please state your name and spell your last name for the record.
A. My name's Adam Gravel, G-R-A-V-E-I.
Q. And Mr. Gravel, by whom are you employed and in what capacity?
A. I am a project manager, wildlife biologist with Stantec Consulting.
Q. And what are your responsibilities with Stantec?
A. I help manage and conduct many of the field surveys -- bird and bat surveys, specifically.
Q. Could you speak into the microphone when you answer. Thank you.

Have you ever testified before the New Hampshire Site Evaluation Committee before?
A. Yes, once.
Q. And when was that?
\{SEC 2010-01\} [DAY 3 - MORNING SESSION]\{11-03-10\}
A. It was last year for the Granite Reliable project.
Q. And are you the same Adam Gravel who submitted prefiled direct testimony in this docket, which I believe was submitted with the application in Volume I?
A. Yes.
Q. Okay. And Mr. Gravel, did you also submit supplemental prefiled testimony, which I believe has been included in what's been marked as Applicant Exhibit 5?
A. Yes, I did.
Q. Do you have any corrections or updates to the information contained in that prefiled testimony?
A. The only update $I$ have to that testimony is $I$ did visit the proposed alternate interconnect route. However, it does not change any of the data that we've collected.
Q. Okay. Thank you. And with the updates that you've just given, if $I$ were to ask you all of the same questions that are contained in both your supplemental prefiled testimony and direct prefiled testimony today under oath, would your answers be the same?
A. Yes, they would.
\{SEC 2010-01\} [DAY 3 - MORNING SESSION]\{11-03-10\}
Q. Thank you.

MS. GEIGER: Mr. Chairman, the witness is available for cross-examination.

CHAIRMAN GETZ: Okay. Thank you. Mr.
Buttolph.
MR. BUTTOLPH: Yes.
CROSS-EXAMINATION
BY MR. BUTTOLPH:
Q. Good morning.
A. Good morning.
Q. First question $I$ have for you relates to Page 5 of your October 12th, 2010 supplemental testimony, if you could get to that page.
A. You said Page 5?
Q. Yes, that's right. Page 5 of the October $12 t h$ testimony.
A. Okay.
Q. You indicate that overall detection rates, of bats, presumably, in the two years of studies at the Groton project are similar: 4.5 calls per detector night in the fall of 2009 , and 6.4 calls per detector night in the spring and summer of 2010.

When I look at that, what that literally means to me is that the bats were noted by the \{SEC 2010-01\} [DAY 3 - MORNING SESSION]\{11-03-10\}
acoustic detectors at a rate that was 42 percent higher during the 2010 study than the previous study in the fall of 2009. With this data, you concluded that there is no significant difference between the detection rates in the two surveys. I wonder if you could explain how 42-percent difference is statistically no difference.
A. Yes. In terms of bat activity, it's an index of activity. And we're looking at ranges of calls, ranges of activities at sites. These two numbers -in fact, actually, I'd like to refer to my -- the 2010 bat report. We provide an explanation on why it's not statistically different. There is -basically, there was one -- there are two nights that had high activity at one detector, and it was during the month of June, which is a resident period and not a migration period. What happens during the resident period is you have -- there's a increased probability of detecting the same bat many times, because the Anabat detectors cannot differentiate between individual calls. So one bat foraging around a detector could produce many calls. So the report -basically what we did was we took that anomaly out, which was that one two-night period, and the
[WITNESS: ADAM GRAVEL]
detection rate was much similar. I think it went from 4.5 -- I mean 6.4 to 5.-something.

WITNESS GRAVEL: Can I take a minute to get the exact number for you in the report?

CHAIRMAN GETZ: Sure. Do you have a cite to that report? Where is that? What Appendix?

WITNESS GRAVEL: It's the most recent.
It was submitted with the supplement, I think,
Appendix 44?
MS. GEIGER: I think it's 48.
WITNESS GRAVEL: Appendix 48.
MR. IACOPINO: So that would be contained in Applicant 5. It's a white volume.
(Witness reviews document.)
A. I apologize. I might be mistaken. It might actually be in my testimony.
(Witness reviews document.)
CHAIRMAN GETZ: Well, let's revisit the question. My understanding of the question from Mr. Buttolph is he asked to explain essentially -- and correct me if I'm wrong -- why the 4.5 calls or 6.4 calls shouldn't be considered a significant increase, given the proportionate change. And your answer to that is?

WITNESS GRAVEL: My answer to that is
\{SEC 2010-01\} [DAY 3 - MORNING SESSION]\{11-03-10\}
the difference in how detectors work. The time period that these detections occurred, many of these -- the majority of the detections occurred were in the breeding resident period, which is when the bats -- when the majority of detections we're getting is from foraging bats. And the difference was inflated basically by two nights of increased activity at two detectors, and that's the difference. So when you take out that anomaly, within the season, the exact number I will have to find for you. But I believe it's 5.3 calls per detector night.
Q. So, if I understand this correctly, there are times when the bats are perhaps flying in circles and being detected multiple times, and that might drive the numbers up for those, what you were calling anomalies; is that right?
A. Yes. Or at least in this case it was a two-night. That's what I'm calling anomalies. One detector -two detectors on two nights had increased activity and actually comprised over 50 percent during that time period. So, basically it was 23 percent of all calls in the entire season was recorded by those two detectors on those two nights.
Q. Okay. So when these events happen -- or I should say the existence of these events, would that be an
\{SEC 2010-01\} [DAY 3 - MORNING SESSION]\{11-03-10\}
unusual think, or would you expect every so often to have these anomalies?
A. I would expect to have those events during the summer period because you have resident bats foraging in the area, versus migration season you don't have bats stopping on site for very long. They're moving. They're migrating. So during the migration period you're more apt to detect single calls, versus during the resident period when they're foraging and potentially detecting multiple calls by the same bat and the same detector.
Q. Okay. But what $I$ understand, also, is that if you have turbines up there spinning, then these same bats are having multiple opportunities to be damaged by those turbines?
A. Well, that's not necessarily the case, because the majority of bat fatalities occur during the migration period when bats are moving through the area and not foraging in the area.
Q. It just strikes me as -- I'm just trying to understand the fact that a bat is migrating versus encircling, which happens periodically. And I guess what you said is it's not unusual to have them circling and coming back through, that somehow
\{SEC 2010-01\} [DAY 3 - MORNING SESSION]\{11-03-10\}
they're at less of a risk because they happen to be foraging than if they're migrating. I'm confused by that.
A. The reason that they're less at risk when they're foraging versus migrating is, when they're foraging, they're usually foraging below tree canopy height, which are much lower than wind turbine height. But when they're migrating, they get up to a certain altitude and are flying high enough, or within the range of the proposed turbine height.
Q. So during these anomalies, did you also detect a height that was lower for those particular instances?
A. Yes. That activity occurred at the middle and low detectors at one met tower.
Q. So, what would you consider to be a significant difference? Like let's say we take the anomalies out and we look at one study versus another study. And in the first study we have 4.5 calls, the next study we have X -number of calls. What would you consider to be significant, based on your statistical approach?
A. It's generally orders of magnitude difference is what we consider statistically different. And the reason is because pre-construction acoustic bat data is
\{SEC 2010-01\} [DAY 3 - MORNING SESSION]\{11-03-10\}
really good at providing an index of activity that you can relate to other projects, and especially those projects that are now operational and have post-construction data. And what we're finding is that the pre-construction acoustic activity is not correlated with post-construction mortality. So that's -- it's not as -- we're not putting as much weight on the pre-construction data alone. It's coupled with data collected from sites that have conducted pre-construction surveys and also post-construction surveys. So you get the mortality rates of those projects in relation to pre-construction activity.
Q. Okay. I'm confused again. Bear with me here. Did you just say that the pre-construction studies, your studies show that they are generally not correlated to the post-construction mortality studies?
A. It's not just our studies. It's studies in general. Pre-construction bat acoustic surveys are not correlating with post-construction bat mortality.
Q. Okay. So, can we conclude -- I mean, I'm tempted as a layperson to conclude that you do your pre-construction studies, it really gives you no idea as to what your mortality rate would be. Maybe you
[WITNESS: ADAM GRAVEL]
can help me understand that.
A. Yeah, that's not necessarily true. I mean, I'm not going to be able to quantify mortality based on pre-construction data. But what you can do is you have -- so now we have, you know, over a hundred proposed wind projects that have conducted pre-construction acoustic bat surveys using similar methods. That gives you an index of activity that you can compare amongst each other. And then, now that time's passed, you have more projects operational with post-construction mortality data. So you're looking at the pre-construction index of activity in relation to projects that are now operational, the pre-construction data of those projects, and those projects that also have post-construction data. So you can see basically there's no -- there's no connection between pre-construction and post-construction. What we're finding is the index are a lot higher than mortality rates for bats. But what you can do is use pre-construction data to compare to like project sites, similar in habitat, elevation, and then assess whether or not you're within range of those sites. And if they have -- and if post-construction
mortality data is available for those sites, you have an idea how to gauge what you might expect for mortality.
Q. In the -- just a little change in gears here. In the public hearing held in Plymouth -- and this would be Exhibit Buttolph 3, Page 49 --

MS. GEIGER: Could you please provide me with a copy of the page that you're looking at off of the exhibit? I don't believe he has it.

MR. BUTTOLPH: I'm sorry. It's
Page 49.
MS. GEIGER: Do you have an extra copy
for the witness?
MR. BUTTOLPH: There's a whole stack up there. I'm sorry.

MR. BUTTOLPH: Mr. Chairman, in the future, should I be -- when a new witness comes up, should I be hand-delivering a copy of my exhibits up there? I'm sorry that I...
A. Page 49 you said?
Q. Yes, Page 49.

MR. IACOPINO: Mr. Buttolph, are you referring to the page numbers at the bottom of the page or -- because the document has got --
\{SEC 2010-01\} [DAY 3 - MORNING SESSION]\{11-03-10\}

MR. BUTTOLPH: Yes, it's Buttolph 3. And once you get that out, then there are page numbers at the bottom. I think the cover sheet says Page 34, for example.

MR. IACOPINO: Okay.
A. I'm on Page 49. What line are you referring to? BY MR. BUTTOLPH:
Q. Okay. It's approximately in the middle of the page. You had answered -- well, here's what I was going to say: You were asked, "Why should we believe your avian studies, when one of their wind farms out west recently reported that the birds killed were seven times more than the preliminary studies indicated?"

And your answer here was, "This isn't the West Coast, for one. This is the East Coast. We have several operational projects here on the East Coast now that show very low mortality. And it is true that there is a very -- there's a lack of information in terms of connecting pre-construction results to post-construction fatality results. And part of this is because it's kind of a random, episodic event based on weather variables. And it's kind of like a freak accident, really, if you get more than that."
\{SEC 2010-01\} [DAY 3 - MORNING SESSION]\{11-03-10\}

I just -- could you -- could you indicate as to -- you know, are you saying that there are events that happened that we ought not to consider because they're random or -- could you elaborate on that a little bit more?
A. No, that's not at all what I'm saying. But what $I$ am saying is it makes it difficult to predict because of the randomness.
Q. Okay. So, again, it sounds like we don't really have a very good way of getting our arms around a prediction of fatalities is what it sounds like to me. Sounds like you're agreeing with that.
A. No. I mean, we're talking West Coast versus East Coast, for one, which is much different in terms of avian mortality. There's -- you know, beyond projects in New England, there's projects down, you know, throughout the Northeast now that have showed low bird mortality relative to other projects in the west or other forms of bird mortality, you know, vehicles or tall structures, you know, skyscrapers.
Q. Okay. But we don't really have a -- well, you're looking at the West Coast and saying that the studies really didn't help you to anticipate what the fatalities would be, $I$ think is what I'm hearing you
say.
A. That's true.
Q. And on the East Coast you think that they do. Is that true?
A. I'm assessing impacts on the East Coast. So I don't calculate West Coast. You have different species. You have different factors involved that could influence mortality.
Q. I'm going to change gears again here. We're going to be on Page 9 of the prefiled testimony from October 12th. So, hopefully that won't require a lot of paper going around. Right in the prefiled. All right? Are we there? Okay.

You state that Groton Wind has committed to
one full year of post-construction monitoring, similar to that conducted at the nearby Lempster Wind project. If first year results show higher mortality than the range of observed rates at other operational projects on forested ridgelines in the Northeast, then Groton Wind will conduct a second year of post-construction monitoring."

And I also need to ask you, if you will refer to Buttolph 20, which is one of our exhibits -CHAIRMAN GETZ: Mr. Buttolph, where
\{SEC 2010-01\}[DAY 3 - MORNING SESSION]\{11-03-10\}
are you reading? Were you reading from Page 9?
MR. BUTTOLPH: I hope I was. That was my intention.

MR. STELTZER: Mr. Chairman, is that the supplemental or the prefiled?

MR. BUTTOLPH: The October 12th. I'm sorry. The supplemental. I apologize. I should have made it more clear.

MS. GEIGER: Mr. Buttolph?
MR. BUTTOLPH: Oh, I'm sorry. Are you ready?

MS. GEIGER: I have a question for you. Could you please repeat the exhibit that you would like the witness to refer to?

MR. BUTTOLPH: Sure. The next exhibit is going to be Buttolph 20.

MS. GEIGER: Thank you.
MR. BUTTOLPH: And I'm also going to be referring to Buttolph 19. So those two exhibits are right next to each other. They're not lengthy, but... BY MR. BUTTOLPH:
Q. Okay?
A. Yes.
Q. Great. So I guess I'll just repeat it very briefly.

Groton Wind has committed to one full year of post-construction monitoring, similar to that conducted at the nearby Lempster Wind project. If the first-year results show higher mortality than the range of observed rates at other operational projects at forested ridgelines in the Northeast, then Groton Wind will conduct a second year of post-construction monitoring.

Now, Exhibits 19 and 20, Buttolph 19 and Buttolph 20, are the corporate policy of Iberdrola with respect to, I guess you'd call it your ABPP, your avian and bat protection plan. Is that -and the policy -- I'll start with Buttolph 19.

If you read down through this, this says that you will implement and comply with your comprehensive ABPP. That's on the first page. If you go to the second page of -- I'm sorry -- the third page of your exhibit, there's an implementation schedule which has some time frames and so forth, which would indicate to me that particular project would fall under that corporate directive.

Now, if I go back to -- or forward, I should say, to Buttolph -- and Buttolph 20 is a Town of Rumney data request. And the question that was
answered -- or the answer, really, is what's applicable. And it would be the second paragraph if you are there. It says, "Pre-construction surveys did not show the potential for an unreasonable adverse impact to birds as a result of the project. In addition, Iberdrola has committed to a one-year post-construction monitoring to assess project impacts to birds. If an unreasonable adverse impact is observed, then the Iberdrola corporate-wide Avian Bat Protection Plan will be followed." And then see Appendix 16 for that.

Why are you not following it at the outset when your corporate policy says that you shall?
A. First of all, it's not my corporate policy. But the reason is that if you don't have impacts, you don't need to monitor for the life of the project. So the ABPP is taking effect by committing to that one-year post-construction monitoring. If impacts or mortality rates are within range of other wind projects in the east, then this plan commits to monitoring with on-site staff years after that. So it's this one formal post-construction study. If that study -- so if that's not the case, the mortality rates are not within the range or lower,
\{SEC 2010-01\} [DAY 3 - MORNING SESSION]\{11-03-10\}
then Iberdrola has committed to a second year of monitoring to figure out what factors caused higher rates.
Q. And do I understand the corporate policy would say that it would do that automatically without that data, that first year's data?
A. Can you repeat that question, please?
Q. Do I understand that your corporate -- that the Applicant's corporate policy -- I'll rephrase a little bit -- is more significant than what you have just suggested is appropriate?
A. It's more significant than any wind project that's been proposed or constructed because it puts a level of commitment on the monitoring that most projects are not following. They do one or two years of study and that's it. And the thing that makes this plan better is that, if there's a significant event that occurs and you're only monitoring for year one or year two, there's a very good chance you won't observe an event if it does occur. And this commitment puts further -- basically monitoring further out than year one and two and will encompass any events if they did occur.
Q. Okay. So it sounds like maybe the people at \{SEC 2010-01\} [DAY 3 - MORNING SESSION]\{11-03-10\}
corporate Iberdrola might listen to your advice and perhaps change their corporate policy. But it sounds to me as though the answer to that data request was that your -- Iberdrola is not going to be following their corporate policy in this respect. And it sounds like you agree that that's what it says, not you're thinking it's not important that they follow it directly. And maybe you have an alternative which you would suggest that's better?
A. I'm actually not sure where you're -- how we're getting to them not following the policy.
Q. It's saying if there's -- well, again, back to Exhibit 20, Buttolph Exhibit 20, that second paragraph down. It says "if" something happens, "then" we'll follow our policy. It's about the second or third paragraph. It says if there's unreasonable adverse observed, then Iberdrola will follow the plan. And I guess the presumption is that you won't be following the plan unless that occurs. So that's where I'm getting that conclusion. And I guess you're suggesting it isn't important because no wind projects follow these plans, or very few, and it's more extensive than is necessary; so, therefore, Iberdrola shouldn't be following their corporate \{SEC 2010-01\}[DAY 3 - MORNING SESSION]\{11-03-10\}
policy in this regard is what I think I'm hearing. And I just --

CHAIRMAN GETZ: Well, Mr. Buttolph, we try to give some latitude to parties who aren't familiar with the process. But it seems you're making a lot of argument that you're free to do at the end of the case. But try -- and certainly you can ask questions to the witness and determine whether he agrees or not, but --

MR. BUTTOLPH: Okay.
CHAIRMAN GETZ: But you can make your argument and your conclusions about what the evidence says and what his testimony says. You'll have that opportunity later.

MR. BUTTOLPH: Okay. I beg your pardon. Thank you.

CHAIRMAN GETZ: Sure.
MR. BUTTOLPH: We'll change gears.
BY MR. BUTTOLPH:
Q. In response to a question on Page 12 of your supplemental testimony which we just were looking at, you state, "I disagree with Mr. Buttolph's assertions that raptor migration surveys must be conducted throughout the migration season and over the course of several years."
\{SEC 2010-01\}[DAY 3 - MORNING SESSION]\{11-03-10\}

If you will, Buttolph 15 is another exhibit that I would ask you to get out. It's a letter from Neal Randall, who is the Chairman of the Board of Directors of HMANA, which is dated October 25th. Oh, you're there?
A. Yeah, I'm there.
Q. The letter states the following: "The proposed Groton protocols appear inadequate for evaluating the risk posed by industrial wind turbine projects to wildlife resources... One year of studies is insufficient for pre-construction studies. Seasons are extremely variable from year to year, and a one-year snapshot is inadequate to determine patterns of migration, species, abundance and risks."

Now, given that HMANA has just recently submitted this letter as public input, and they have stated precisely the position that I had taken, would you reconsider your professional opinion on this matter?
A. No, I wouldn't, because I disagree with the statement that migration is extremely variable year to year. We have several examples of -- you know, looking at HMANA's data itself and -- for the past seven years at the two sites closest to this project, the
\{SEC 2010-01\}[DAY 3 - MORNING SESSION]\{11-03-10\}
patterns are very similar. There's a trend, in that the peak of migration occurs in September and mid-October. It does not change, vary extremely as suggested.
Q. Okay. And just a very brief question on corporate policy from before. Just a very quick, one question. Will you be following the corporate policy, the AA -I'm sorry ABPP? That's just the brief question I have.
A. That might be a better question for the Applicant.
Q. Okay. I'm now going to move to another exhibit. And actually, this is one from the Public Counsel, which I believe was just recently handed out. It should be Exhibit PC 14, if I'm not mistaken. I know that the parties out here have it, and we weren't sure if the Committee had that one.

MR. MULHOLLAND: Could we go off the record for a second?

CHAIRMAN GETZ: Yes.
(Discussion off the record)
CHAIRMAN GETZ: We're back on the
record.
BY MR. BUTTOLPH:
Q. Okay. Are you familiar with this report that they
just gave you? This is, my understanding -- well, I'll just read the cover here. It's "Wind Turbine Guidelines Advisory Committee, Established Under the Federal Advisory Committee Act, October 26, 2007." It's from the Chairman of the Wind Turbine Guidelines Advisory Committee. I'll ask just a general question for starters. Are you familiar with this advisory committee?
A. Yes, I am.
Q. Okay. Is it your opinion that the field studies indicate that species of concern are present on or likely to use the proposed site?
A. No, it isn't. It's my opinion that they could pass through during migration, but that they're not present in -- they're not residents of the project area.
Q. They are not residents. Okay.

So, being present on or likely to use, in your view, is -- there are none. So they just -okay. I got that.

If $I$ could direct your attention to
Page 28. So if there were some of these species of concern there -- "In the event a species of concern is very rare and only occasionally visits a site, a \{SEC 2010-01\} [DAY 3 - MORNING SESSION]\{11-03-10\}
[WITNESS: ADAM GRAVEL]
determination of 'likely to occur' would be inferred from the habitat at the site."

So if there were, you know -- well, what I just said.

MS. GEIGER: Excuse me. Mr. Chairman, I'm not sure if there's a question. If not, I'm going to object to this statement being read into the record because it's not a question.

MR. BUTTOLPH: Okay. I'll withdraw the question.

CHAIRMAN GETZ: Okay.
BY MR. BUTTOLPH:
Q. During the fall 2009 sample of eight days, from 8/24 through 10/26, five bald eagles were observed. Now I'm going to direct your attention to Buttolph 18 and Buttolph 17. And this one is in Buttolph 18.

Do you have that? Okay. It looks like five bald eagles were observed, as well as two golden eagles. Now, given that this is apparently your position, that this is a sufficient sample -- I shouldn't -- I guess I should ask you this question: As I understand it, the 10 days provides a sufficient sample in order to do your analysis; is that correct?
A. That's correct.
\{SEC 2010-01\} [DAY 3 - MORNING SESSION]\{11-03-10\}
Q. So, given that's the case, we have five bald eagles and two golden eagles that were observed in that time period. So, based on that, what would you estimate would be the total count of those two species during the totality of the fall migration?
A. Be difficult to tell without observing the entire season. But $I$ would note that it's important to consider where those observations occurred. Of those observations, not all of them occurred within the project area.
Q. Okay. Now I'm going to go back to the question that I withdrew, and hopefully I'll do better with this.

That Page 28 from Exhibit PC 14 says that, in the event a species of concern is very rare and only occasionally visits a site, a determination of "likely to occur" would be inferred from the habitat at the site. So if the five bald eagles or the two golden eagles were present or likely to use the proposed site, then the -- then that would be a concern relative to this particular directive out of the federal government; is that correct?
A. I think the important or the key point in that sentence is, "would be inferred from the habitat on the site." The "habitat" is the key word there, in
\{SEC 2010-01\} [DAY 3 - MORNING SESSION]\{11-03-10\}
that the habitat for bald eagles, as we know, are open-water bodies or river corridors. They do use ridge lines, you know, near their foraging and breeding areas for thermal development and soaring. But I would not say that this project has a habitat for eagles.
Q. Okay. There is the Baker River that this project is close to. You're familiar with that, of course.
A. Yes. And also Newfound Lake.
Q. Right, Newfound Lake.

Again, regarding your sampling of 10 days, from 8/24 to 10/26, and the data collected there, could you please explain your probabilistic sampling protocol that allows a statistical extrapolation to the area in the time of interest?
A. So you're asking me how we determined the -- when to sample in the migration season?
Q. I'm asking as to whether you have developed and you have a statistic -- a sampling protocol that allows for a statistical extrapolation to the area in the time of interest. And I guess what you said was it was kind of hard to predict how many of these raptors would fly through. And so I guess I should conclude you don't really have a statistical extrapolation for \{SEC 2010-01\} [DAY 3 - MORNING SESSION]\{11-03-10\}
counting or estimating how many would be flying through; is that right?
A. That's correct. And we don't do that because, as I said earlier, there's no correlation between pre-construction survey results and post-construction mortality, and especially for raptors where mortality in the East has been extremely low.

DR. MAZUR: Extremely what?
WITNESS GRAVEL: LOw.
MR. BUTTOLPH: He said "extremely
low."
BY MR. BUTTOLPH:
Q. Would you consider the risk of taking even one of these individuals of these two species to be reasonable, considering the Bald and Golden Eagle Protection Act?
A. Yeah. The Bald and Golden Eagle Protection Act has a specific clause in there about basically intentionally taking of an eagle. This project, through field surveys and peregrine-use surveys over the course of several years, has shown due diligence to avoid -- avoid and assess risk. And the results, as well as known information from publicly available mortality studies, the conclusion is that it's a low
\{SEC 2010-01\} [DAY 3 - MORNING SESSION]\{11-03-10\}
risk and a low potential.
Q. Have you conducted raptor nest searches in this area?
A. No, we didn't.
Q. And why not?
A. Well, in part, because it hasn't been requested at any project before. I mean, let me back up, actually.

Before we conduct and carry out studies, we consult with the state and federal agencies beforehand with detailed work plans of what we propose to do on site, as was the case here. Work plans were submitted to the agencies for comment, to basically identify any gaps in proposed methodologies. No comments were received on the study plan.
Q. Okay. So you've concluded, since you received no comments then, the specific question here? There was no raptor nest search required?
A. Yes.
Q. Okay.

MR. BUTTOLPH: I'm done. That's all the questions I have.

CHAIRMAN GETZ: Thank you. Dr. Mazur, do you have questions for this witness?
\{SEC 2010-01\} [DAY 3 - MORNING SESSION] \{11-03-10\}

## CROSS-EXAMINATION

BY MR. MAZUR:
Q. Mr. Gravel, I don't know too much about birds and bats.

CHAIRMAN GETZ: If we could --
DR. MAZUR: Oh, I'm sorry.
BY MR. MAZUR:
Q. Mr. Gravel, I'm Dr. Mazur. I don't know too much about birds or bats, but $I$ have few questions for you.

How many birds and bats would you anticipate being found on the ground at such a work site with 24 turbines on a daily basis? How many birds corpses would be on the ground every morning?
A. I can't quantify that for you. But I would -- as I said in several, you know, testimonies and reports, that $I$ expect it to be within range of publicly available studies. So I think it's going to be -- I think $I$ would predict it would be more similar to some of the work that's been done in Maine and New Hampshire -- Lempster, specifically.
Q. So, how many birds would be laying on the ground every morning? More or less?
A. I don't know.
\{SEC 2010-01\}[DAY 3 - MORNING SESSION]\{11-03-10\}
Q. Zero to 10 or --
A. Most likely it's-- most often at these studies it's zero. And that's what makes it difficult to correlate. You can't correlate pre-construction data to zero mortality on a regular basis. There's occasions where you'll find a few. But there's also many occasions within a survey year you find zero.
Q. Based on your expertise, sir, do the birds that fly within the proximity of the turbine blades, do they do that randomly, or might they do that for some sort of physiological disequilibrium due to the sound wave emigration that might be affecting their balance and nervous system monitoring loci?
A. Based on what we know about birds in the data collected, we feel it's more random due to weather variables and not necessarily a bird's nervous system.
Q. Okay. Are you aware of any experimental studies that have ever been done trying to monitor the effect of sound wave propagation, audible or inaudible, as far as the birds or bats are concerned, on their equilibrium and sensory --
A. No, I'm not.
Q. Okay. Why would some -- such studies be of some \{SEC 2010-01\} [DAY 3 - MORNING SESSION] \{11-03-10\}
value, since there is concern about these creatures coming to possible harm with such turbines? Why would no laboratory want to seek funding to do such research?
A. The problem is you can't isolate the variables, in terms of what factors are influencing that, whether it's noise or weather. So that's the problem. You're in a natural environment, and you can't isolate all the variables that could influence collision incidents.
Q. I want to be careful that $I$ don't comment and $I$ only question. But $I$-- this problem about not being able to isolate variables is also applicable to concerns regarding the effect of the sound wave propagations on humans --

MS. GEIGER: I'm going to object to this question. This witness has not testified about sound effects on humans, and so I don't think the question is fair.

DR. MAZUR: Allow me to repeat that. I appreciate Mr. Gravel's concern about the difficulty in controlling for variables affecting the equilibrium, balance or disturbance of the creatures we're discussing. BY MR. MAZUR:
\{SEC 2010-01\} [DAY 3 - MORNING SESSION]\{11-03-10\}
Q. But regarding the peregrine falcon that everyone is concerned about, I think I read in your pretrial testimony that you had only observed two sightings over the potential site area in 200 hours of observation.
A. I don't know if that's the correct number. It might have been four.
Q. Four sightings?
A. Yeah.
Q. Does it really matter whether you observe 1 sighting or 10 sightings? All it takes is one unfortunate sighting for the peregrine to be bladed. How significant -- does it matter how much sightings you observed?
A. It's very significant. I mean, if you have, you know, throughout the course of the year very few opportunities for interaction, then you would expect the risk to be much lower. But you also have to think about, you know, life history characteristics of the bird that we're talking about. I mean, these birds will pick off other birds at speeds up to 200 miles an hour. To think that they can't see a turbine is not reasonable. I'm not saying it does -you know, freak events do not happen. I mean, there \{SEC 2010-01\} [DAY 3 - MORNING SESSION]\{11-03-10\}
is, you know, definitely occasions where you could have an injured bird or even a juvenile bird, inexperienced, that could have an incident. But as a whole, it's not -- we're not expecting that.
Q. Are you saying your expertise, sir, are -- the peregrines or other birds of concern to you, are they particularly attracted to such artifacts in nature as turbines? I mean, have you reason to believe that whether or not a turbine is in their flight path, they might be -- they might redirect their trajectory to fly into the turbines?
A. No. In fact, actually, many studies post-construction have showed avoidance behaviors by raptors and turbines, where we've had -- an example is Mars Hill, Maine, where we've had eagles nesting nearby that we saw pre-construction and post-construction. And they continually avoided the turbines. They didn't avoid the ridgeline, but they avoided the turbines.
Q. When you say "avoided," are you saying a hundred percent of circumstances or --
A. At that site, yes.
Q. I think I've exhausted my questions. Let me ask my fellow intervenor.
\{SEC 2010-01\} [DAY 3 - MORNING SESSION]\{11-03-10\}

Sarah, do you have any questions? MS. MAZUR: I do.

DR. MAZUR: She needs to speak at the microphone. This is Sarah Mazur. She's also -- may she ask her questions?

CHAIRMAN GETZ: Well, we had asked ahead of time that you designate for the intervenor group. But I think at this point if you have a question for this particular witness, come up to a microphone.

DR. MAZUR: Okay. Thank you.
CROSS-EXAMINATION
BY MS. MAZUR:
Q. Hello. Thank you. Well, my question is: What is the procedure for what seems to be a blind or invisible mortality rate if the birds and the bats that are -- become victims of the wind turbines and fall to the ground as corpses and are eaten immediately that night by roaming predators or scavengers? What's the procedure for counting -- or accounting for those?
A. Both scavenger-removal and search-efficiency trials are conducted at these post-construction sites to provide a correction factor on birds that searchers may miss because of ground cover, or birds that were
\{SEC 2010-01\} [DAY 3 - MORNING SESSION]\{11-03-10\}
there but are no longer there because of scavengers. So the mortality rates are adjusted based on those trials.
Q. But are those trials based on counts of how many predators are on the premises or --
A. Yeah. Yeah. Basically, carcasses are planted on a site, and it's -- I think it's a seven-day interval where you monitor daily if those carcasses are there and see how long it takes for those carcasses to be scavenged by coyotes or crows or ravens and so forth.
Q. But do you know if there are more coyotes in the East than in the West?
A. No, I don't know that.
Q. Thank you.

CHAIRMAN GETZ: Thank you. Mr.
Sinclair, do you have questions?
MR. SINCLAIR: None. Thank you.
CHAIRMAN GETZ: Then my understanding,
Mr. Mulholland, was that Mr. Roth would conduct the cross-examination of Mr. Gravel. Is that correct?

MR. MULHOLLAND: Yes.
CHAIRMAN GETZ: Okay. I guess at this juncture then -- well, let me clarify and make sure.

Mr. Buttolph, I assume you were still
\{SEC 2010-01\} [DAY 3 - MORNING SESSION]\{11-03-10\}
conducting the cross-examination for your group?
MR. BUTTOLPH: Yes.
CHAIRMAN GETZ: Okay. All right. At this point then, I think we would want the Subcommittee to ask its questions after Mr. Roth had conducted his cross-examination. So we'll excuse Mr. Gravel until -- I believe it's this afternoon that Mr. Roth will be here? MR. MULHOLLAND: He'll probably be here between 11 and 12. Closer to 12, I think. CHAIRMAN GETZ: Well, then let's excuse Mr. Gravel. And then let's take about a 15-minute recess, bring up the panel, have the -- conduct the direct and then start their cross-examination. Thank you.
(Whereupon a recess was taken at 10:11 a.m. and the hearing resumed at 10:36 a.m.)
(Applicant's Exhibit 43 marked.)
(Applicant's Exhibit 44 marked for identification.)
(Applicant's Exhibit 45 marked.) CHAIRMAN GETZ: We're back on the record and moving to the direct examination of the panel ○.

F Leo, Rendall and Walker.
\{SEC 2010-01\}[DAY 3 - MORNING SESSION]\{11-03-10\}

(WHEREUPON, the following witnesses were duly sworn and cautioned by the<br>Court Reporter.)<br>MICHAEL LEO, SWORN<br>NANCY RENDALL, SWORN<br>PETER WALKER, SWORN<br>DIRECT EXAMINATION

BY MR. PATCH:
Q. Good morning. Could you each state your name for the record.
A. (Leo) Sure. My name is Michael J. Leo. I'm a project manager and civil engineer from Vanasse, Hangen, Brustlin.
A. (Walker) My name is Peter J. Walker. I'm director of environmental services for Vanasse, Hangen, Brustlin.
A. (Rendall) Nancy B. Rendall, senior environmental scientist for Vanasse, Hangen, Brustlin.
Q. Might make sense to speak into the microphone when you're speaking, just to make sure the court reporter and everyone can hear what you're saying.

Now, each of you submitted prefiled testimony in this docket. I believe, Mr. Leo, I'll start with you.

You submitted with the original
\{SEC 2010-01\}[DAY 3 - MORNING SESSION]\{11-03-10\}
application, which has been marked as Exhibit 1, part of Volume $I$, prefiled testimony; is that correct?
(Leo) That's correct.
Q. And then part of what's been marked as Exhibit No. 5 supplemental prefiled testimony; is that correct?
A. (Leo) That's also correct.
Q. Okay. And do you have any -- well, actually before I do that, Mr. Walker, why don't we go to you now.

You were not involved in the original prefiled testimony, but you submitted jointly with Nancy, with Ms. Rendall, the supplemental prefiled testimony that is part of Exhibit 5; is that correct?
A. (Walker) Yes, that's correct.
Q. And Ms. Rendall, just to be clear, you submitted original prefiled testimony, part of Exhibit 1, and jointly with Mr. Walker as part of Exhibit 5; correct?
A. (Rendall) That's correct.

MR. PATCH: Okay. Does everyone have that straight? I'm sorry. I just want to be clear about that.

BY MR. PATCH:
Q. Now I'm going to ask each of you: Do you have any corrections or updates to either the original
\{SEC 2010-01\} [DAY 3 - MORNING SESSION]\{11-03-10\}
prefiled or the supplemental prefiled testimony? Mr. Leo, why don't we start with you.
A. (Leo) I do not.
Q. Mr. Walker?
A. (Walker) In terms of corrections to the presupplemental prefiled testimony, no real corrections. There was a question last Friday during the prehearing conference that came up regarding a plan set and some information that was dated July 9th. So at that time, at the prehearing conference, I came and explained the basis of what those filings were. And I believe copies of a letter dated July 9th and a letter and attachments dated July 22nd were submitted to the counsel at that point.
Q. Okay. Thank you.

MR. PATCH: Just to stop there, Mr.
Chairman. We have handed out a packet that shows the July 22nd, 2010 letter to Mr . Craig Rennie on the front of it. And I think it's been premarked as Exhibit 43.

BY MR. PATCH:
Q. And I believe the other letter that you mentioned, Mr. Walker, is contained as part of that package. That was the June 29th letter; is that correct?
A. (Walker) There should be a letter dated July 9th
which was signed by Michael C. Hansen, which also had a number of attachments.
Q. All right. I believe that's part of the packet that's been handed out. But we can verify that. So that's all together in what has been premarked as Exhibit 43.

And maybe if you could just very briefly summarize what that packet is again.
A. (Walker) These two submittals which VHB prepared on behalf of Groton Wind, LLC contained our technical responses to DES comments on the alteration of terrain permit application and the Wetlands Bureau application.

So, very briefly. On June 30th, we had received a request for more information from Craig Rennie of New Hampshire DES regarding our alteration of terrain permit application. And we replied to Craig's comments on our application via this July 9th letter. And although Michael Hansen signed that letter today, Mike Leo, who is a lead engineer, would be responsible for addressing any questions on alteration of terrain.

We also -- again, as briefly as possible. On June 28th, we received a separate letter from
\{SEC 2010-01\}[DAY 3 - MORNING SESSION]\{11-03-10\}

Craig Rennie, who was providing comments on our wetlands permit application. And we replied to those comments of Craig's via this letter, dated July 22nd, and the information that was attached to it.
Q. Okay.

CHAIRMAN GETZ: Mr. Patch, I'm having trouble finding -- are both of those in --

MR. IACOPINO: They're not.
MR. PATCH: I apologize, Mr. Chairman.
I thought they were part of the packet, but apparently the July 9th is not. So we'll have to check on that during a break and make sure you have copies. But I --

CHAIRMAN GETZ: So what's been marked as Applicant 43 is just the July 22nd material, as I can best tell it.

MR. PATCH: That's my understanding. And I apologize for that. But we'll correct that.

MR. IACOPINO: Mr. Patch, just to clarify.

Mr. Chairman, I believe that -- I know the Committee doesn't have it. But my understanding is that the July 9th letter was indeed previous -- between Friday and Monday was circulated to the parties via e-mail.
\{SEC 2010-01\} [DAY 3 - MORNING SESSION]\{11-03-10\}

MR. PATCH: That's correct. Yeah. CHAIRMAN GETZ: And just for additional context for my benefit, this was all material that was submitted to DES that formed the basis for the DES actions?

MR. PATCH: That's correct. And there were questions raised at the prehearing conference about the information, so Mr. Walker came up and discussed it with the parties at that time.

MR. IACOPINO: And the other parties actually requested this information from you.

MR. PATCH: That's right.
BY MR. PATCH:
Q. Okay. Then, Ms. Rendall, could you -- are there any updates to your testimony?
A. (Rendall) Yes, there are. I have two updates. One is -- and they both referred to the alternative interconnect route proposal.

MR. MULHOLLAND: Mr. Chairman, I'm going to -- I think I'm going to object to the introduction of this. We were just handed this today, dated November 2nd. This is what Ms. Rendall is going to talk about. And the basis of the objection is that, what this is, is an amendment to the application that's late.
\{SEC 2010-01\} [DAY 3 - MORNING SESSION]\{11-03-10\}

And I agree it's interesting to the Committee. But we don't really know where the -- as we established yesterday or the day before, we don't know where the interconnection is going to be. So this is wetlands information about a proposed orientation of the wire based on a sketch. And I mean, I guess it presents a problem to the Committee.

CHAIRMAN GETZ: Do we have this
document?
MR. IACOPINO: Yes. This is Exhibit 44 for identification, Applicant's Exhibit 44. It's been passed out.

CHAIRMAN GETZ: Oh, it's to Kristen Goland, that letter dated November 2nd?

MR. IACOPINO: Yes.
CHAIRMAN GETZ: And it includes these other separate pieces, the summary table and the two sets of photographs?

MR. PATCH: That's correct.
MR. IACOPINO: Actually, I think it's more than two photographs, isn't it?

MR. SCOTT: Mr. Iacopino, can I get that exhibit number again?

MR. IACOPINO: It was 44 for identification. And I believe it was passed out just a
\{SEC 2010-01\} [DAY 3 - MORNING SESSION] \{11-03-10\}
few moments ago.
I believe it actually has four
photographs, if I'm correct.
CHAIRMAN GETZ: Well, what I'm saying is I have two stapled sets of photographs is what I have. And. . .

MR. IACOPINO: Maybe there was...
CHAIRMAN GETZ: Let's go off the
record just so you don't have to try and follow this.
(Discussion off the record)
CHAIRMAN GETZ: All right. Back on
the record. Mr . Patch, have a response to Mr .
Mulholland's statement?
MR. PATCH: I do, Mr. Chairman. I
think Mr. Mulholland had said that it was all based on a sketch. But I'd like to point out that in the
supplemental application, Appendix 42 actually contains a map of the alternate interconnection route. And I believe in his supplemental prefiled testimony, Mr. Cherian also discussed it. Now, $I$ understand that this is supplemental information and it was not provided at that point in time. But I think, as we've indicated before, it is an iterative process. We're trying to respond to the concerns that you had expressed to us on Friday and then early in this
\{SEC 2010-01\} [DAY 3 - MORNING SESSION]\{11-03-10\}
proceeding about the fact that we needed to try to address the interconnection route in more detail. Again, I apologize it's coming in when it is. But we're doing the best we can to try to provide more information.

CHAIRMAN GETZ: Well, I guess at this point we'll mark it for identification. I'd like to get an explanation of it. It raises several other issues: One is what weight to give it; two is opportunity for the other parties to inquire about it, prepare questions about it; and I guess as a third, I'm taking it that some of this information basically has to be considered by DES? Would that be correct?

MR. PATCH: Well, I think it fair to say if it relates to wetlands, that it would be something that would be discussed with DES. But I think I'll let the witnesses maybe testify more about that. They have more experience dealing with DES on issues like this. But maybe that would be the best way to deal with it. But I would say the answer is yes.

CHAIRMAN GETZ: Okay. Well, let's receive at least an explanation of what this information is, and then we'll figure out how to deal with it.

BY MR. PATCH:
Q. Okay. Thank you. Do you need the question again or
do you remember?
A. (Rendall) Yes, I do, because I don't know how far I got.
Q. Okay. If you could just provide us with an update to your supplemental testimony and describe for the Committee, if you could, Exhibits 44, and then there's a 45. At least they've been marked for identification as those numbers.
A. (Rendall) Okay. Exhibit 44 is the results of a field investigation that $I$ performed at Groton Wind on Friday, October 29th. The purpose of that visit was to traverse a hundred-foot wide corridor, based on the information that was provided to VHB by Ed Cherian as to the proposed alternative interconnect route. At that time, the purpose of that was to see if there were wetlands, fertile pools, streams, any other areas of special concern. This memo summarizes the results of that investigation. I flagged the wetlands in accordance with the interim guidelines and located those wetland flags in the field with a Trimble GPS unit, which is the same method that was used for locating wetlands throughout the rest of the project area.
Q. And Exhibit 45?
\{SEC 2010-01\} [DAY 3 - MORNING SESSION]\{11-03-10\}
A. (Rendall) Exhibit 45 is the result of a New Hampshire Natural Heritage Bureau online data check for listed species within the proposed alternative interconnect route. And there are no known records within that proposed area as a result of that. So that's a memo to Kristen Goland explaining that that check had been done and that there were no species listed or found. No known records.
Q. Okay. And Mr. Leo, just to be clear, did you participate in that site visit on Friday?
A. (Leo) Yeah, I did walk on the ground, the route of the proposed interconnect.
Q. Okay. Now, if we were to ask you the same questions that you've been asked in your respective testimonies that you filed, would you answer them the same way today?
A. (Leo) Yes.
A. (Rendall) Yes.
Q. Absent the update that we just talked about.
A. (Rendall) Yes.
A. (Walker) And yes.

MR. PATCH: The witnesses are
available for cross-examination.
CHAIRMAN GETZ: What I would propose
\{SEC 2010-01\} [DAY 3 - MORNING SESSION]\{11-03-10\}
is that we conduct the cross-examination on the prefiled, the original prefiled and the supplemental testimony, and defer any -- unless parties are inclined, they may question about Exhibit 44 in particular. But I'd like to address this issue in independent pieces and give some thought to how to deal with Exhibit 44 in particular. So I would suggest that we conduct the cross-examination that you intended to conduct when we came here this morning, and later in the day hear argument about what's the best approach for dealing with Exhibit 44.

So, with that, Mr. Sinclair, do you have any questions for the panel?

MR. SINCLAIR: None. Thank you.
CHAIRMAN GETZ: Dr. Mazur?
DR. MAZUR: Yeah. Thank you. I have one question that really comes from my wife, who -Christine is also an intervenor, but not present today.

CROSS-EXAMINATION
BY MR. MAZUR:
Q. The wetlands that you folks monitored presumably drains into the Clark Brook which runs parallel to Groton Hollow Road, the access -- the proposed access road. And the Clark Brook meanders and finally enters the Baker River right across from our \{SEC 2010-01\} [DAY 3 - MORNING SESSION]\{11-03-10\}
property, or exactly where we go swimming in the Baker River.

My wife's concern is: Does this panel perceive any implications for the outflow of the Clark Brook into the Baker River that might affect the brook -- the river itself and perhaps push the river over to our side and affect our property, our lower fields? Is there -- that's the question.
A. (Leo) From a hydraulic standpoint, we are emulating on site the existing drainage flow conditions, and we're adhering to requirements to control our runoff rates to what they are today. So there should be no change caused by this project to the confluence of the Clark Brook and the Baker River.
Q. My incredulous wife would then ask the question: Even if you would need to dynamite the ridges of Fletcher Mountain in particular, you do not anticipate any change in the off-flow of the Clark Brook that might affect the position where -- the topography where it enters the Baker River?
A. (Leo) No, we don't. Overall, we've got, I think, less than a 3-percent change in land use total for this project. And we're proposing very limited additional impervious areas, only those areas
\{SEC 2010-01\} [DAY 3 - MORNING SESSION] \{11-03-10\}
associated with the operation and maintenance building and room for a small parking area. Other than that, all the roads we're creating are going to be gravel. And the slopes are going to be, you know, impervious surfaces. So we're not changing the patterns or the runoff rates from the site.
Q. So what about the risk of contamination from the work site into the Clark Brook feeding then into the Baker River? Do we have to worry about contamination runoff from the site?
A. (Leo) Long term, no. Once this project is completed and stabilized, it will be similar to the existing use that's on the site. Right now, you have to remember, most of this property is an ongoing logging operation. There are disturbances out there. When we're gone, we'll have upgraded Groton Hollow Road on the site to be a more stable road. We'll have improved some of the culverts out there right now that are undersized to be the correct size, so you'll have less of a chance of erosion. And this is a low-intensity use. In other words, these roads we're building aren't going to be traveled by the public every day. There's not going to be a high number of cars on them. The only vehicles traveling up and \{SEC 2010-01\} [DAY 3 - MORNING SESSION] \{11-03-10\}
down these roads after it's built are going to be to maintain the towers. So it's a very low-intensity use.
Q. You used the qualifying word "long term." What about short term? What sort of short-term --
A. (Leo) Yeah. What I meant by "long term" is once the project is complete and stabilized. Short term is of a little more concern. During construction, it's going to be imperative that they follow best management practices for construction activities and erosion control. We put together a fairly substantial package of requirements for them to limit disturbance areas, have barriers for limited construction to collect sediment. There's requirements that monitors be identified, people be out here on site weekly monitoring all the stormwater controls on site and make sure they're functioning as proposed.
A. (Walker) If I could, just to supplement Mike's answer. Your concern is with regard to contamination of water quality. The New Hampshire Department of Environmental Services has reviewed the plans. That is the main focus of DES's review. Water quality and effect on wetlands is one area, but probably receives \{SEC 2010-01\} [DAY 3 - MORNING SESSION]\{11-03-10\}
the most focus. DES has issued a recommendation to the Committee. That recommendation included a number of permit conditions that relate to some of the concerns that you have.

Mike referred to construction-phase
monitoring. And if you look at the DES recommendation, you're going to see there's a number of provisions in there for spill-control provisions and for monitoring of the surface water to make sure there are no effects off the site.
Q. Now, when we swim in the Baker, we don't drink it. We drink our well water. So my wife would like to know, do you have to worry about possible contamination of the source of our well water? We live on Quincy Road. We abut the Baker River. Do we have to worry about contamination of our well?
A. (Leo) Not from this site as constructed, no.
Q. You had to think about the question. Was there any qualifying comments?
A. (Leo) No, I was just going through in my mind what the conditions on the project were, trying to figure out how to best answer your question.
Q. Okay. Last week I attended a PSU, Plymouth State University, climatology lecture on the anticipated
\{SEC 2010-01\} [DAY 3 - MORNING SESSION] \{11-03-10\}
change in the climate in New Hampshire over the next 90 years. Through the course of the 21 st Century it's going to get dryer and dryer. There's going to be risk of summer droughts, be less snow and more rain in the winter months.

MR. PATCH: Mr. Chairman, I don't know if this is a question or --

BY MR. MAZUR:
Q. And the question is, in anticipation of the change of the New Hampshire climate, would you anticipate any modification of your expressed reassurance to abutters such as ourselves regarding the quality and the off-flow of the brook? This project will have a life of at least 20 years. And we will be warming -we'll be going through climate warming over the next 90 years, for sure, maybe mitigated by such technology as wind turbines. But do you anticipate any modification of your reassurance over the next 20, 30 years?

MR. PATCH: Mr. Chairman, I just need to object to one portion. Mr. Mazur said as an abutter of the project, and just to be clear from a legal perspective, I don't believe there are an abutter.

MR. MAZUR: I stand corrected. I mean
\{SEC 2010-01\} [DAY 3 - MORNING SESSION]\{11-03-10\}
as abutter to the Baker River which receives off-flow from the Clark River -- Clark Brook, which drains from the potential work site. I stand corrected. I appreciate that.

BY MR. MAZUR:
Q. Do you anticipate any modifications to your reassurance over the course of the next $10,20,30$ years as the climate continues to warm?
A. (Leo) I think I'll go back and just reiterate that this is a low-intensity-use project. There's ongoing logging activities going on on the site right now. Our improvements to the site aren't going to change the characteristics of the runoff of the site. Whether this project is built or not built, if there's substantial changes in climatic activities, I don't think you'll see a difference in the characteristics of the runoff of the site, whether the project's built or not built. I can't predict what the future climatic changes are going to be. And I know there's certainly been some controversy over what they actually will be.
Q. Okay.

MS. MAZUR: I do have a question about the --
\{SEC 2010-01\} [DAY 3 - MORNING SESSION]\{11-03-10\}
[WITNESS PANEL: LEO/RENDALL/WALKER]

DR. MAZUR: Is it okay if fellow intervenor, Sarah Mazur, asks questions?

CHAIRMAN GETZ: Please proceed.
CROSS-EXAMINATION
BY MS. MAZUR:
Q. You mentioned the low impact to the road through the property, which will be the extension of Groton Hollow Road. I'm aware that the Clark Brook and the road divide by maybe a 50-meter to 100-meter, very steep incline that might be -- is this 90 degrees up straight? -- and that the road really is -- the trail goes straight down and then here's the brook. Will there be guardrails or some kind of buttressing to the side, the incline, 50 to 100 meters where -- do you know what I have in mind?
A. (Leo) Well --
Q. I mean, it's a very obvious dramatic feature of the landscape.
A. (Leo) Yeah. Right now, all the improvements we're proposing to Groton Hollow Road is to widen the road away from the brook and so as not to touch those revetments that go down to the brook as it is.
Q. So you'll cut into it to --
A. (Leo) So, yeah, sort of the ravine where the brook,
\{SEC 2010-01\} [DAY 3 - MORNING SESSION] \{11-03-10\}
on Groton Hollow Road, to the extent we need to widen it, we'll widen it back into the hill on the high side, not towards Groton Hollow Road, because we do want to stay away from those ravine areas.

MS. MAZUR: Thank you.
DR. MAZUR: Those are all the
questions from our group.
CHAIRMAN GETZ: Thank you. Mr.
Buttolph.
MR. BUTTOLPH: With the Chairman's permission, $I$ would ask Cheryl Lewis to do this cross-examination.

CHAIRMAN GETZ: Ms. Lewis.
MS. LEWIS: Thank you.
CROSS-EXAMINATION
BY MS. LEWIS:
Q. Good morning. I guess I'd like to follow up quickly with the last question you were just asked on the steep incline of the road. And you mentioned that you would be widening it on the opposite side of the Clark Brook. Is that area specific to the private portion of Groton Hollow? I thought Ms. Mazur was speaking right where it changes over from the public to the private part. Which area were you speaking \{SEC 2010-01\} [DAY 3 - MORNING SESSION]\{11-03-10\}
about?
A. (Leo) I was referring to the public part in the town of Groton -- I'm sorry -- the private portion of road in the town of Groton.
Q. Okay. Thank you. Because we've been assured in the town of Rumney that Groton Hollow Road will not be touched, so $I$ just wanted to make sure that that's not what your -- that it's not in Rumney, which we've been told it would not be changed.

I have a few questions for Ms. Rendall.
On your supplemental prefiled testimony, Page 5, could you just clarify a bit the mitigation package whereby you go on to describe a number of stream crossings, culverts, et cetera. And specifically, were they not already adequate for the logging that was being done, and that's why you're going into to improve them, or -- I guess just to understand a little bit better what all these upgrades are that you're proposing.
A. (Rendall) I can address that question in particular if you want to know. The New Hampshire DES recently adopted new stream crossing rules. They've been working on them for quite a while. And the existing logging roads that are out there are built by the \{SEC 2010-01\}[DAY 3 - MORNING SESSION]\{11-03-10\}
foresters and loggers during their timber-harvesting operations. So, many of the culverts that are currently along existing roads are undersized and not adequate. They're not installed properly. They don't have stabilized invert and outlet protection and that sort of thing. The proposal is to improve those to the level of the recently adopted at the time that -- so, I guess...
Q. Okay. Thank you. On Page 6 of your prefiled, could you explain a little bit further the detailed conversation with the EPA and Army Corps as to the mitigation package, including both the direct and indirect impacts?
A. (Rendall) I'm going to turn this part of the discussion over to Pete Walker. He's -- he was sort of the liaison for the mitigation, development of the mitigation package.
A. (Walker) Your question is -- could you repeat your question? I just want to make sure I answer it.
Q. I just wondered if you could detail a little more of your conversations with both the EPA and the Army Corps as to the mitigation package which they wanted to include both the direct and indirect impacts.
A. (Walker) We had submitted an original mitigation
\{SEC 2010-01\} [DAY 3 - MORNING SESSION]\{11-03-10\}
package with our permit application. And we had actually had meetings and discussions with all of the resource agencies before we submitted our application, and we had a general agreement on the components of the mitigation package. So, for example: The stream crossing upgrades that you just asked about, that was originally suggested by New Hampshire DES, and we were able to incorporate that into the design of the project.

Where the issue arose with the mitigation package, the Corps of Engineers needs to -- has its own internal regulations about mitigation. And they were having a difficult time applying those rules to the component where we were assisting the Forest Society with the green acre woodlands preservation. So where their regulations may require, for example, creation or preservation, they had a more difficult time dealing with our proposal, which was to provide technical information and financial assistance. So, after the permit application was submitted, the EPA and the Army Corps of Engineers commented that that was an issue for them and that they preferred that our mitigation take the form of what's known as an "in-lieu fee," a donation to a state fund known as \{SEC 2010-01\} [DAY 3 - MORNING SESSION]\{11-03-10\}
[WITNESS PANEL: LEO/RENDALL/WALKER]
the Aquatic Resource Mitigation Fund.
We met -- we had the site walk on June $29 t h$ with all of the -- my recollection, all of the resource agencies were present at that meeting, and we discussed it with DES and the Corps and EPA and Fish \& Wildlife, et cetera. And at that meeting, it wasn't a clear consensus. It seemed to us that DES was supportive of the mitigation package as submitted. But the Corps and EPA were pretty clear, in that they wanted us to shift our focus to this armed fund donation. And eventually, we had provided some additional information via a July 20th memorandum, and then I believe it was a July 28th memorandum where we did finally opt to shift the mitigation slightly. And Groton Wind, the Applicant, did agree to provide $\$ 150,000$ donation to the armed fund. That satisfied the EPA. They removed their objection to the mitigation package. And the Army Corps eventually provided a letter, which was dated September 3rd, in which they indicated that they were satisfied with the mitigation proposal.
Q. Okay. Was there a specific reason why they requested a change in the financial aspect from 20,000 up to $150 ?$
\{SEC 2010-01\} [DAY 3 - MORNING SESSION]\{11-03-10\}
A. (Walker) Well, first of all, our initial proposal -quite frankly, I'm not certain exactly where that \$20,000 figure really came from. I think that was someone within the resource agency who, you know, made a calculation. But our initial proposal was to provide the technical assistance and to provide a cash donation that was equivalent to 40 acres of land preservation. And the way we came up with that 40 acres is we applied the DES rules on mitigation, given our impact of about 1.65 acres of impact. Our proposal would have met DES rules if we had proposed to preserve 16-1/2 acres; so, about 10 times our impact. That's how the mitigation ratios work in the DES rules. So we thought our proposal to provide the equivalent of 40 acres of preservation was quite generous.

But your question was, did they provide a justification or an explanation of why 150 was acceptable and this $\$ 20,000$ was unacceptable? No, they didn't. They didn't, really. It was more the form and who was receiving the funding that was the issue.
Q. Okay. So there wasn't a change in that amount based on specific types of impacts that they were more \{SEC 2010-01\} [DAY 3 - MORNING SESSION]\{11-03-10\}
concerned about or -- you know, that dollar wasn't related directly to some aspect of the impact? It was just more in generalities?
A. I mean, you're asking about what was on their mind in the negotiation. And I don't honestly know. I think their general sense -- and it's quite common, actually, in a mitigation negotiation for EPA in particular -- to look at the initial proposal and always feel that they can negotiate a better package. And I think that had something to do with it. As part of their leverage in this negotiation, they did refer to the fact that -- in addition to the 1.65 acres of direct impact, they did reference the idea that we would be clearing close to wetlands and that type of thing, and that's known as an indirect impact.
Q. Okay. Thank you. This question is more specifically for Mr. -- Ms. Rendall. Do you recall at the technical session in August when I asked you about possible contamination to wells and the aquifer due to significant blasting that would take place in the project?
A. (Rendall) I recall that question.
Q. Okay. Do you recall your answer?
\{SEC 2010-01\} [DAY 3 - MORNING SESSION]\{11-03-10\}
A. (Rendall) No.
Q. Would it help if $I$ remind you, and then you could tell me if you believe I'm wrong? But my recollection was that you didn't believe that wells were ever contaminated by blasting and that you only believed that the surface water could be effected, but not the subsurface water. Do you recall that?
A. (Rendall) Well, $I$ would not have said that. So that must have been a misinterpretation of what $I$ would have said. But as Mr. Lewis had pointed out, there was -- there is -- there are known cases where wells have been impacted by blasting. So I wouldn't have said that it wasn't a possibility. But I am not a blasting expert, and I will have to defer any questions on blasting to somebody else.
Q. Okay. This one is more specific to Mr. Walker. I noticed that in your resume you have listed you worked on the Interstate 93 improvement in Southern New Hampshire. And I wondered if you were involved in that project at the time when there were issues that occurred during blasting and/or erosion issues which caused major concerns of drinking water contamination, including the town's water supply. Were you involved in that project at that time?
A. (Walker) We were -- my role for the Interstate I-93 project was primarily during the compilation of the environmental impact statement for the project. VHB was also involved in the engineering design for portions of the highway upgrade. Our specific area was around Exit 1 and Exit 2. The issue that you're referring to occurred at Exit 3. That was not our design task, although VHB was working on portions of the project at that time.
Q. Okay. Could you tell us a little about -- because your company was involved, although you may not have designed that area personally -- were there any lessons learned from that experience that would help in the future so that type of situation won't happen again?
A. (Walker) I want to be really clear that VHB was not directly involved in the erosion and the blasting issues that occurred at Exit 3. So I will answer your question, though.

And I will tell you that I think as a result of that, DES engaged in developing best management practices for blasting specifically. And as a matter of fact, those new best management practices are referenced in the DES recommendation to \{SEC 2010-01\} [DAY 3 - MORNING SESSION] \{11-03-10\}
the Committee as permit conditions. And I think what DES sought to do, working with other partners, DOT and other agencies and experts in the area, was to try to make sure that when blasting occurs, that all of the appropriate precautions are put in place to avoid and minimize any potential impacts.
Q. Were you aware that the town's aquifer runs under part -- or begins, so to speak, at parts of Groton Hollow, not all the way up to the project area, but up to a significant portion of Groton Hollow Road? Were you aware of that when you were doing the design work on this project?
A. (Walker) Yes, we were.
Q. You were?
A. (Walker) Yes.
Q. Okay. I guess I'm surprised. My recollection at the tech session was that this panel that represented your company was not aware of the aquifer.
A. (Rendall) I presented this figure at that hearing that shows that we were aware of that aquifer. And this is part of our wetland permit application. So this is publicly available information that's been prefiled.

CHAIRMAN GETZ: Well, can you describe
\{SEC 2010-01\} [DAY 3 - MORNING SESSION]\{11-03-10\}
it in this case?
A. (Walker) In this case, it's the map that Nancy just referred to as Figure 8. It's titled "Groundwater Resources Map." And that would be filed with the original wetlands permit application.

MS. GEIGER: That would be in
Volume II of the application.
CHAIRMAN GETZ: Okay. Thank you.
BY MS. LEWIS:
Q. Could you explain if you have any plans in place to reduce the risk of minimizing contamination of the aquifer specifically?
A. (Leo) As part of the New Hampshire DES's recommended conditions of approval, they have asked that we follow, I guess, best management practices for blasting procedures and handling of regulated substances on site, and have also requested that we identify all water wells located within 2,000 feet of the site, and that we establish a groundwater quality sampling program to monitor those wells.
Q. Were you aware of the fact that the majority of the residents in the town of Rumney lie above that aquifer and, therefore, their drinking water would be related directly to that aquifer?
\{SEC 2010-01\} [DAY 3 - MORNING SESSION]\{11-03-10\}
A. (Leo) I'm not sure what you mean by they're located above the aquifer, but they rely on the aquifer.
Q. Yes. They...
A. (Leo) We have identified on this Figure 8 a number of wells, intake wells that are located in the town of Rumney. I'm not sure which one you're referring to.
Q. Well, I guess what I'm suggesting is the way the aquifer runs, it basically runs right on both sides of the Baker River, which is where the majority of the residences are, and going up into the village area where it's most -- there's more residences throughout the entire area of the aquifer than there is anywhere else in the town. So I'm suggesting that there's a lot of people in town that rely on their wells not being polluted and not having any issues.
A. (Leo) I think the area you're referring to are the aquifer areas, the stratified-drift aquifers on either side of the Baker River. Our project is located outside of the designated aquifer zone.
Q. Right. I understand that. But your project, the aquifer begins -- or a part of it goes up into Groton Hollow Road, which is where your project, you know, overlooks.
A. (Leo) Yeah.
\{SEC 2010-01\} [DAY 3 - MORNING SESSION]\{11-03-10\}
Q. And it's all downhill. So --
A. (Leo) Right. But I don't believe we're going to be having any blasting or any substantial earth-removal activities occurring within 2,000 feet of that aquifer zone.
Q. Do you feel certain about that? You were a little reluctant earlier when Dr. Mazur --
(Witness reviews document.)
A. (Leo) Well, right at the entrance of our site we have some minimal road widening and a little bit of excavation to do for the switch station that's fairly minor. And I'm just sort of eyeballing off the plan. I think those areas are all greater than 2,000 feet from the aquifer zone.
A. (Walker) If I could, generally speaking, impact to an aquifer is going to result from either increased imperviousness or the introduction of contamination. I don't think the Groton Wind proposal really does either of those. We certainly are not creating a additional impervious area within the main part of the aquifer. The aquifer is actually located quite a distance north of the project site. I think your -we should be looking at the potential for any impacts to the aquifer. And it's an appropriate question to
ask. My own opinion is that the risk to the aquifer is quite minimal. And we -- again, this is something that DES is responsible for reviewing. It was considered. They imposed these permit conditions to make sure that we're looking to detect if there is any impact and taking appropriate measures to minimize that risk as much as we possibly can.
Q. Do you believe --
A. (Walker) I would also -- you pointed out that the bulk of Rumney is actually in that aquifer. And I would suggest to you that the activities with commercial activity, trucking, what's occurring independent of this project is a far greater risk to that aquifer than anything that Groton Wind would be doing.
Q. Given your last response, would you -- you said that you don't believe that the risk is high for any contamination to the aquifer. However, do you believe that the experts that had designed and worked on the situation in Salem -- I'm sorry -- Exit 3, so, Windham, do you know that they had anticipated a high risk in that situation?

MR. PATCH: Mr. Chairman, I'd object to that question. I think he's being asked to speculate
\{SEC 2010-01\} [DAY 3 - MORNING SESSION]\{11-03-10\}
about what some other experts may have thought, and I don't see how he can honestly answer that question.

CHAIRMAN GETZ: All right. But I think it's fair to inquire as a general matter in the industry, that companies have taken precautions that they thought were reasonable, that didn't turn out to be the case. Now, I guess, clearly he's testified that that wasn't their involvement in that issue. So he's -- I think it's a fair question to ask. He can respond and distinguish as is appropriate under the circumstances. So I'd just ask you to respond to Ms.

Lewis's question.
A. (Walker) I think in the case of Exit 3 at I-93, something didn't work correctly. And I don't know, to be honest with you, whether it was the design or the implementation of the design or the monitoring and enforcement to make sure that things were being installed.

I would also point out, to be honest with you, if you look at the scale of the excavation at Exit 3, you look at the scale of the blasting, the size of the blasting, the footprint of the construction that occurred at Exit 3, it is -- it's much, much greater than $I$ think any area associated
\{SEC 2010-01\} [DAY 3 - MORNING SESSION]\{11-03-10\}
with our project. But I would say that there needs to be an appropriate design. There needs to be an appropriate set of conditions and best management practices, and that those things need to be overseen during construction, and that's how it should happen.
Q. Do you recall how long that project was shut down due to that situation?
A. (Walker) I don't.
Q. I mean, months? Was it months or a year or --
A. (Walker) Oh, I don't want to attempt to answer a question -- I don't know the answer. It certainly wasn't a year. I don't know.
Q. But it wasn't a couple days, either. It was an extended period of time.
A. (Walker) Sounds like you might know.
Q. Honestly, I don't know. I remember it was shut down for a lengthy period of time. That's all. But I don't know exact dates or what --
A. (Walker) I don't know. But I would be surprised if it was shut down for more than -- I thought it was a matter of days to weeks. But I could be wrong.
Q. Okay. All right.

MS. LeWIS: That's all the questions I
have. Thank you.
\{SEC 2010-01\} [DAY 3 - MORNING SESSION]\{11-03-10\}

CHAIRMAN GETZ: Okay. Mr. Mulholland.
MR. MULHOLLAND: Thank you.
CROSS-EXAMINATION
BY MR. MULHOLLAND :
Q. I want to start off with Figure 8 that you have right there in the wetlands application. That doesn't show all the private wells; right?
A. (Rendall) No.
Q. Okay. You're going to have to go out and find some, according to the DES permit; right?
A. (Rendall) Within 2,000 feet.
A. (Leo) What we would do is go look at all the homes within 2,000 feet and see if we can ascertain the location of their wells.

CHAIRMAN GETZ: Just one second.
Let's make sure we get the full citation to that, because I'm not sure we got the full citation to that figure. That's in --
A. (Rendall) Volume II.

MR. IACOPINO: Applicant's Exhibit 2, which is in Volume II of the application. The wetlands permit is Appendix 1 contained in there. And the figures that are in the copies that the Committee has are actually on 8-1/2-by-11 sheets of paper, not the large copies that
\{SEC 2010-01\} [DAY 3 - MORNING SESSION] \{11-03-10\}
the witnesses have. And the figures are towards the back. Let's see if I can get page numbers here. They're after Page 45 of the application.

CHAIRMAN GETZ: Okay. I think we're set, Mr. Mulholland.

MR. MULHOLLAND: Great.
BY MR. MULHOLLAND :
Q. Mr. Leo, would a likely spot to start looking be on Groton Hollow Road, right at the town border where the houses are?
A. (Leo) Yeah. The closest houses to us are right near the border at Groton Hollow Road and the Groton/Rumney town line.
Q. Okay. Mr. Walker, you referred a number of times to the $\$ 150,000$ payment as a donation. It's not really a donation; right? I mean, it's a fee. It's a condition to getting the permit; right?
A. (Walker) Yes.
Q. But it's not a voluntary sort of donation.
A. (Walker) It's payment in lieu of other forms of mitigation. So, yes.
Q. You wouldn't recommend to the Applicant that this Committee consider a different amount of money, right, to the armed fund?
\{SEC 2010-01\}[DAY 3 - MORNING SESSION]\{11-03-10\}
A. (Walker) No. No, I mean, this is an amount that the resource agencies have -- it's been vetted by all of the people who have expertise in mitigation, and it's been found to be acceptable.
Q. So if this Commission puts that $\$ 150,000$ fee as a condition, or in the certificate, if any is issued, you wouldn't recommend that the company appeal that; right?
A. (Walker) No. I think the company has already agreed to that amount.
Q. Okay. Ms. Rendall, the largest wetland fill is 5,500 square feet, the largest individual fill?
A. (Rendall) Could you refer me to the place where you're looking?
Q. Sure. It's in your prefiled initial testimony at Page 7, Line 7.
A. (Rendall) Yes.
Q. So the largest fill is about 5,500 square feet?
A. (Rendall) Yes.
Q. Where is that?
A. (Rendall) I thought you were going to tell me. I would have to find it on the plans, unless Mike Leo can help me find it faster.
A. (Walker) It's to the west, I think.
\{SEC 2010-01\} [DAY 3 - MORNING SESSION] \{11-03-10\}
Q. We can come back to that, and I can move on to a different topic.
A. (Walker) Yeah, we can find it relatively quickly I think. It's from the Groton Hollow Road up to the west ridge.
A. (Leo) Oh, okay.
A. (Walker) You know, the switchback.
A. (Leo) Here?
A. (Walker) Yeah, I think so. Yeah.
A. (Rendall) It's in --

CHAIRMAN GETZ: Let's go off the record so the court reporter doesn't have to try to record the cross-talk.
(Discussion off the record)
CHAIRMAN GETZ: Let's go back on the record. I assume you're going to have some more cross-examination. Why don't you move on.

MR. MULHOLLAND: Different topic.
CHAIRMAN GETZ: Yes.
A. (Rendall) Okay. Well, I'm in the right location for that. So if you...
(Witness reviews document.)
A. (Rendall) Okay. I'm at the location of the impact.
Q. At which point?
\{SEC 2010-01\}[DAY 3 - MORNING SESSION]\{11-03-10\}
A. (Rendall) Okay. It's on the Sheet C-9.1. And the wetland -- the impact number is 119, and the wetland ID is NWR8.
Q. Okay. All right. I guess those -- sorry. Those are not in this; right?

MS. GEIGER: No, they're in Volume II.
A. (Rendall) It would be in Volume II.
Q. But where is that in the site, in general?
A. (Rendall) It's on the access to the north ridge.
Q. Why was that impact necessary? Was there any way that you tried to avoid that wetland impact?
A. (Rendall) Mike? I think I'll have to defer that question to Mike Leo.
Q. All right.
(Witness reviews document.)
A. (Leo) The stream seems to flow pretty much from the top of the hill all the way down. So we needed to cross it somewhere to get to the N6 turbine location.
Q. So then, just a couple questions about construction. Have you found a general contractor yet?
A. (Leo) I'm not aware that Iberdrola has.
Q. When will Iberdrola find a general contractor?
A. (Leo) You'd have to ask them that.
Q. So your company is not the general contractor?
\{SEC 2010-01\} [DAY 3 - MORNING SESSION]\{11-03-10\}
A. (Leo) No, we're the civil environmental design firm.
Q. So all the plans say "Stamped for permitting, not construction." When will Iberdrola have construction plans?
A. (Leo) Once the remaining process is finalized and we get all the conditions that have to be part of the plans, we'll change the stamp from "not for construction" to "for construction."
Q. And that's something your company would do?
A. (Leo) That's really a protection for us as designers, so that somebody doesn't grab a set of plans while we're permitting and think they can go build them.
Q. Okay. Now, you talked about the permit from DES, in the proposed permit conditions, there are requirements to follow best management practices for erosion control and blasting. During construction, will your company be involved in monitoring that?
A. (Leo) There will be a monitor selected, erosion control monitor. We think it's going to be us right now. They're talking about it being VHB. But Iberdrola would have the option of hiring a different consultant to do that monitoring as well.
Q. And then what about to make sure blasting is being followed? Would that be your company or a different
\{SEC 2010-01\}[DAY 3 - MORNING SESSION]\{11-03-10\}
company?
A. (Leo) It would -- I think, given what's in here, we would provide some oversight for that. I am not an expert on blasting, so it wouldn't be me.
Q. Okay. We talked about this at the tech session. In order to construct some of the roads, I think especially Groton Hollow Road, there's going to be rock crushing that has to be done?
A. (Leo) Yeah, we'll be trying to use most of the materials that are removed from the site on site. So, to the extent that we have rock removal -- and we will have rock removal -- we will be processing that material -- in other words, crushing it to various diameters; some of it to be use as fill as large rock and finer stone to be used for the road bed.
Q. Would the -- as far as you know -- I mean, you may not be able to speak for them. But would the Applicant be amenable to a condition as to dust reduction for things like that, for rock crushers?
A. (Leo) As part of their erosion control, we have to put together a best management plan as part of the DES conditions. And that will include dust control dust control for crushing, dust control for the roads and material placement, mostly involving the use of
\{SEC 2010-01\}[DAY 3 - MORNING SESSION]\{11-03-10\}
water to keep dust from blowing around.
Q. So, could we just look at the Exhibit 51, the proposed conditions for the AOT permit. You're aware, obviously, that there are people at DES who review these things and draft these permit conditions for the Commission. You wouldn't recommend that the Commission adopt any other permit conditions that would change the ones in the DES permit; right?

MR. PATCH: Just to be clear, it's not Exhibit 51. It's actually Appendix 51 to the supplement to the application. So $I$ think that's part of Exhibit 5. MR. MULHOLLAND: Thanks, Doug. Sorry.
A. (Leo) I guess I would say I agree with the conditions, and we'll comply with the conditions that AOT has recommended. And I agree with their program. We had already put together a fairly substantial erosion control program as part of the plan set. And they've imposed additional conditions and protections for the project, which I think are quite adequate for the construction of this project.
Q. And you would recommend to the Commission that these proposed conditions be part of any certificate that's issued; right?
A. (Leo) Yeah. I've reviewed these with Iberdrola, and
\{SEC 2010-01\} [DAY 3 - MORNING SESSION]\{11-03-10\}
they have agreed to these conditions as part of the project. And I think they're good conditions for the project.
Q. Okay. Can you just look at No. 12 in the AOT final decision. Talks about construction, BMP inspection and maintenance plan.
A. (Leo) Yeah, I've got it in front of me.
Q. Has the Applicant done that yet, or is that in the future?
A. (Leo) That would be done in the future.
Q. Okay. Let's see. No. 15, same answer?
A. (Leo) Just reading it now.
(Witness reviews document.)
A. (Leo) Yes, that would also be done. It says 90 days prior to the placement -- excuse me -- 90 days prior to, really, the construction activity. So we would need to take care of it prior to the start of construction.
Q. And then No. 21, we talked about this earlier?
A. (Leo) Yeah, I had mentioned this previously. And we would identify wells, to the best that we can, within 2,000 feet of any proposed blasting areas. And these would mostly be the residential homes near Groton Hollow Road.
\{SEC 2010-01\} [DAY 3 - MORNING SESSION] \{11-03-10\}
Q. Okay. Says "proposed blasting activities." Where are they proposed?
A. (Leo) Well, that's where I sort of stuttered before when they asked me how far it was from the blasting activities. As soon as you cross the Rumney/Groton town line onto the property, there's some areas of some minor excavation on either side of the road, some for the switching yard, some for the $O \& M$ building. We may or may not hit rock in those areas. If we do hit rock in those areas, we'd measure it from there. The more substantial blasting's much further into the site. So if we don't hit rock there, it may be that there are no homes within the 2,000 feet of the rock removal.
Q. Would there be blasting, as far as you know right now, on the private portion of Groton Hollow Road, the cuts that you were talking about?
A. (Leo) The portion in Rumney, no.
Q. What about the portion in Groton?
A. (Leo) I'm sorry. Would you repeat the question?
Q. The portion in Groton below the line --
A. (Leo) Yes.
Q. -- would there be blasting in those cuts?
A. (Leo) Yeah, some of those cuts will require some rock
\{SEC 2010-01\} [DAY 3 - MORNING SESSION]\{11-03-10\}
removal and some blasting.
Q. Okay. I think you mentioned that most of the material you try to source on site. Does that mean that some you're going to have to get from off site? Sand, perhaps?
A. (Leo) Right now -- we'll know when we open up the site. We're hoping that all the materials that we need are on site. There are plenty -- there's plenty of earth for us to do that. There may be some specialty things, like maybe some sand bedding for some pipes that we can't find that we may need to bring on site in limited quantities. But as far as the major fills and the select gravels for the road construction and the stones for the concrete pads, all that should be able to be obtained on site.
Q. I think Ms. Lewis mentioned this, but I just want to ask you directly. Will there be any alterations to the public portion of Groton Hollow Road in Rumney?
A. (Leo) Right now, we don't anticipate any changes to that road. I mean, we will have to truck down the road, with the exception of right up the entrance off of Route 25 there on the -- if I get my bearings correct here -- the northwest corner. There's about -- I think it's about a 50-by-80-foot area
\{SEC 2010-01\} [DAY 3 - MORNING SESSION]\{11-03-10\}
right in the right-of-way itself that we need to level out and widen. And the reason for that is so that the larger trucks, when they come in, can swing that corner and turn into Groton Hollow Road. When we're done, that will be returned to as near to its original condition as we can.
Q. Now let's go to No. 22, the AOT permit, best management practices for blasting. You testified that your company may be involved in making sure that the blasters follow these practices. Yes?
A. (Leo) We may be. I mean, I'm not the expert on blasting. We have people in our company that can do this.
Q. That was my next question. Does your company have people who can do that?
A. (Leo) We do. We have people that can do it. I'm not the person that would know exactly how to apply these regulations, but they can certainly be monitored either by us or somebody else.
Q. Now, I'm concerned about No. 4A.
A. (Leo) Which number?
Q. 4A, muck pile management.
A. (Leo) Yes.
Q. It says you have to remove the muck pile from the
\{SEC 2010-01\}[DAY 3 - MORNING SESSION]\{11-03-10\}
blast area as soon as reasonably possible. How can you square that with your testimony that you're going to reuse the muck, the blasted rock?
A. (Leo) I guess $I$ don't understand your question.
Q. Well, I mean the BMP says you have to remove the muck pile from the blast area. And you said you're not really going to remove it, you're going to reuse it and crush it.
A. (Leo) No. We would actually -- any rock we're blasting, we're blasting because we need to lower the earth in that area. We would remove that rock and do one of a couple things with it: Pick it up and place it in the deeper fills and then fill over it, or we would take it to an on-site crusher and process it for roadbed material.
Q. I think the concern of this -- tell me if I'm wrong -- is that the muck pile is contaminated by the blasting material, by the nitrates. I mean, isn't that the reason for the muck pile management?
A. (Leo) Well, I mean, there are some finds in the muck pile that we want to make sure don't get washed away. I think the main thrust of this is that you keep the muck piles of the blasted rock out of the concentrated surface water flows.
\{SEC 2010-01\} [DAY 3 - MORNING SESSION] \{11-03-10\}
Q. I mean, isn't that because the muck piles may have concentrations of nitrates from the blasting agent that didn't fully blast?
A. (Leo) I think part of it is that, yes.
Q. So you may be reusing blasted rock that is contaminated with nitrates is what you're saying; right? Or you don't know?
A. (Leo) I'm not really the expert for the nitrates, no.
Q. All right. Just a couple other questions. One moment. I think I'm done. I just want to make sure I didn't skip anything.
(Pause in proceedings)
BY MR. MULHOLLAND :
Q. I guess I have just a series of questions for Ms. Rendall about impacts to wetlands.

You agree that there's going to be adverse impacts to the wetlands as a result of the project; right?
A. (Rendall) I agree that there will be impacts to wetlands. I'm not sure how you're defining "adverse."
Q. Adverse meaning you're going to build the project on where the wetlands are right now, at least --
A. (Rendall) Yes.
\{SEC 2010-01\} [DAY 3 - MORNING SESSION]\{11-03-10\}
Q. -- 1.6 acres worth.
A. One point six five acres, yes.
Q. But you're going to mitigate them through the mechanisms that you talked about.
A. (Rendall) Correct.
Q. And so you also testified that that impact is not going to be unreasonable. Is that how you come to that conclusion?
A. (Rendall) Well, it affects less than 1 percent of the wetlands within the project area, and it's less than a tenth of a percent of the total project area, all of the land within the total project area. In addition to that, we work with the engineers during the design process to make sure that the most significant wetlands were avoided and that buffers were kept around important and significant wetlands. So, for a project of this size, 116 acres, I think it is a reasonable impact. You know, I've done a lot of wetland inventories for towns across the state. And in general, wetlands comprise 10 to 15 percent of the landscape. So this is far less than what you would normally expect within any random, you know, 116-acre area.
Q. Thank you. Those are my questions. Thank you.

CHAIRMAN GETZ: Thank you. Questions from the Subcommittee? Mr. Harrington.

MR. HARRINGTON: Yeah, I had just a couple questions.

INTERROGATORIES BY MR. HARRINGTON:
Q. Going back to that section on the groundwater sampling plan for wells within 2,000 feet of blasting. It sort of -- I mean -- let me just get it. It says you'll develop and implement a groundwater sampling plan program. Maybe I'm just ignorant of what those terms mean. But it doesn't say what do you do if you find out that there's nitrate or nitrate ether in the drinking water supply. I mean, there's no step for what happens, other than just monitoring. So you found it. Then what?
A. (Leo) Well, as part of the program, we would have to -- I believe we would include a reporting piece of that. So --
Q. Well, would you fix the problem, I mean, up to the point of putting in a new well for somebody if it became contaminated? I'm trying to find out, finding it and saying, okay, we've got bad news for you. There's nitrates in your wells. The good news is we \{SEC 2010-01\} [DAY 3 - MORNING SESSION]\{11-03-10\}
discovered it. The bad news is it's there. Now what are you telling them you're going to do about it? Is there something I'm missing that --
A. (Leo) No, I'm just... I don't want to speak for Iberdrola right now. I think they're the ones that would have to agree to the remedial action.
Q. But typically -- let me just go like this then: Typically in your experience, when something like this program is put in place to identify or to monitor for a potential problem, monitoring and discovering a potential problem doesn't really accomplish much if there isn't some mitigation method to take care of the problem.
A. (Leo) Right. And I think that the program we would put in place would spell that out. You know, if it was determined that it was caused by the project site, you know, there would be some immediate response, as in the activity would be changed or stopped. And, you know, if it was determined that there was damage to a well based on the project, that some remedial action would be taken to correct that, whether that be drilling a new well or flushing out the well that they have.
Q. So it's safe to assume within this Section 21 , then,
[WITNESS PANEL: LEO/RENDALL/WALKER]
it's just not a we found a problem, stop drinking your water. But actually, there'd be some --
A. (Leo) No. I took this to mean that we need to submit a program to DES which they're going to review, comment on. And I would think that they would have the same concerns that you do.
Q. Okay. There's a lot of talk on the -- and I'm not sure you're the right people to be asking this to, but it did come up a number of times -- on the fact that nothing or very little is going to be done to the public portion of Groton Hollow Road, which means that you'll have the trucks going back and forth delivering these very large pieces of machinery on what is considered, what $I$ would look at -- we haven't seen the road -- but a pretty small road. It's certainly not wide at all. And is there any provisions in the plan to make any cutouts or turnout areas, so if a truck, let's say, had a flat tire or something, they could make an attempt to get off the road? Or does it just sit there blocking the road until they can bring in the proper equipment to haul it away?
A. (Leo) We're not proposing any upgrades or turnouts to the public portion of the Groton Hollow Road. We
\{SEC 2010-01\} [DAY 3 - MORNING SESSION]\{11-03-10\}
had, early on, looked at seeing if we needed to widen it. We had a transportation company that delivered these components for other wind projects look at the road. They told us they can get their trucks up and down the road. So we're not creating any additional turnouts. If someone were to get stuck on the road, there's certainly enough construction equipment on the site that they could tow that vehicle up into the site or back out onto Route 25 , if need be.
Q. Okay. Let me start with that then. If one of these trucks carrying the turbine or all the various other very, very large pieces of equipment were to break down on that road, would a vehicle be able to get by? Or is it just basically going to take the whole road when it's going up?
A. (Leo) There's portions where it would take the whole road up, yes.
Q. Okay. So, do you know of any plans, then, if that were to occur? Because by looking at that road in the maps, everybody on the south side of that, if a vehicle were to break down, they'd basically be trapped from the point of view of using a vehicle to get -- there's no other way out; is that correct?
A. (Leo) That would be correct.
\{SEC 2010-01\}[DAY 3 - MORNING SESSION]\{11-03-10\}
Q. So if there were -- and this is probably a fairly rare case, but it could be. The consequences could be quite devastating if someone were to have a medical emergency or something, and one of these trucks -- there's a number of trucks going back and forth. There could always be the potential that something shifts and the truck has to stop. The truck gets a flat tire. The truck has something. Do you know of any provisions that are put in effect, so if somebody -- I mean, as simple as they were going on vacation and they wanted to drive their car down to get to the beach or get to the airport. What's the provision for getting around that stuck truck, which at that size $I$ think could take maybe five, six hours before they could get it out?
A. (Leo) There will be notifications to the people living on the road when these trucks are coming through so that they'll know what time frames the road is expected to be down, barring a breakdown, as you've suggested. I think we could certainly look into some type of emergency provision, should --
(Cell phone ringing.)
Q. Sorry. Excuse me. Hang this thing up here.
A. (Leo) -- should somebody need emergency access from
\{SEC 2010-01\} [DAY 3 - MORNING SESSION] \{11-03-10\}
[WITNESS PANEL: LEO/RENDALL/WALKER]
their home out to the road. I think that's probably a good thing to think about ahead of time. It's something we can incorporate into the plan for access to the site.
Q. And what's the transit time for one of these very large vehicles from when it enters the bottom of Groton Hollow Road until it passes through the gates onto the private property?
A. (Leo) I think it's, round figure, about a mile from one end to the other. Assuming he's doing 5 miles an hour, it's probably going to take him 20 minutes, 15 to 20 minutes.

MR. HARRINGTON: I don't know how we go about seeing how we follow up on this, Mr. Chairman, to see if we can get some commitment to some type of a plan to address that issue.

CHAIRMAN GETZ: Well, I think we can discuss when we get to the level of deliberations what we determine is an appropriate condition. I guess we could ask -- we could reserve an exhibit and ask the Applicant to propose a condition, and then we would have that before us so we could consider it in our deliberations. That may be one way to at least get some of that information on the record before us. So why don't we do that. We'll hold --
\{SEC 2010-01\} [DAY 3 - MORNING SESSION]\{11-03-10\}

MR. IACOPINO: Forty-six.
CHAIRMAN GETZ: Applicant Exhibit 46
for proposed conditions to deal with circumstances that might arise on Groton Hollow Road with respect to breakdowns of the trucks -- delivering equipment is what $I$ take it to be; correct?
(Applicant's Exhibit 46 reserved.)
MR. HARRINGTON: Yeah. I mean, like I said, $I$ don't know exactly how many trucks there are going to be. But if it's 20 minutes a truck, and there seems like there would be a large number of them, the odds are probably fairly small. But if there was, for example, a fire in a house up there or some medical emergency, there should be some plan that we don't start -- people don't start figuring out when it happens, but should figure out something in advance to have an emergency plan to deal with those situations. That's what I'm looking for. That's the only questions I had.

CHAIRMAN GETZ: Okay. Thank you.
MR. PATCH: Mr. Chairman, could I
just -- some of the questions that have been asked of this panel, you know, they've deferred because they don't want to speak for the Applicant. But if they could be addressed to us, you know, Mr. Cherian may very well be
\{SEC 2010-01\} [DAY 3 - MORNING SESSION]\{11-03-10\}
able to answer those questions. And it's kind of hard to predict what might come up and at what point in time, and I don't know if we should just sort of interrupt and say Mr. Cherian can answer that or --

CHAIRMAN GETZ: Well, I think maybe the better procedure is to keep a list of questions that -- because I think there may have been in the past couple of days some areas where Mr. Cherian did have information. But what I'd like to do is to have all the parties know what those potential issues are. If we could compile a list, and then we'll have some notice to the other parties of any supplemental information directly responsive to questions that have been asked and whether to recall Mr . Cherian at the end of basically the Applicant's direct case. It doesn't have to happen today, but it could be something that might be appropriate tomorrow. I just want to make sure all the parties see what the suggestions are and what the questions and answers are likely to be, rather than doing it on the fly.

MR. PATCH: Okay. Thank you.
CHAIRMAN GETZ: Any other questions?
Mr. Steltzer.
MR. STELTZER: Yes, just a few.
\{SEC 2010-01\} [DAY 3 - MORNING SESSION]\{11-03-10\}

INTERROGATORIES BY MR. STELTZER:
Q. In your opinion, which of the proposed interconnection routes would cause the least amount of environmental impact?
A. (Walker) I'll take a stab at that. It depends on what resource you're really looking at. Going down Groton Hollow Road, there's minimal -- I want to make sure Nancy agrees with me. But there would be minimal wetland constraint going down Groton Hollow Road. But our understanding of why we're looking at the alternative is because residents are concerned about that alternative. So the new alternative, if you will, which does involve Groton Hollow Road, may involve some indirect -- some clearing and some indirect impacts. Neither one, at least in my opinion, represents a significant environmental impact.

MR. STELTZER: The next two are maybe more directed -- I'm not sure how to handle them, so I'll just raise them and take input from the Chairman of how to handle it. One is regarding the residue from the blasting. And it was raised by Mr. Mulholland, as far as the nitrates that might be within the materials and how the Applicant would reuse those materials on site. And I

$$
\text { \{SEC 2010-01\} [DAY } 3 \text { - MORNING SESSION] \{11-03-10\} }
$$

don't know if it would be appropriate to have an exhibit to understand that concern a bit more, about how the nitrates -- the leftover nitrates in that residue would be reused or contained.
A. (Rendall) Could I just --
Q. Sure.
A. (Rendall) It's not something I studied for or prepared for today so I may get the conversion right. But one occurs in the absence of oxygen. When it's put into the air, it converts to a non-toxic form of nitrates. So, in removing that contaminated muck away from the hole, it's not able to go down into the hole where it's in an anaerobic state. When you move it away and it's put in a stockpile location or spread out, it becomes aerobic, and it converts to a different form. That problem is resolved.
Q. So, to paraphrase, there isn't as much concern about the residue of the blast material within the products that would be reused on the site. Is that your opinion?
A. (Rendall) In terms of the nitrogen, yes.
Q. And is the nitrogen the chief concern, as far as potential pollutants from the blasting that could affect the aquifer and the wells?
\{SEC 2010-01\} [DAY 3 - MORNING SESSION]\{11-03-10\}
A. (Rendall) That's my understanding. But I'm not positive if there are other concerns, so...

BY MR. STELTZER:
Q. And the only reason $I$ was suggesting maybe there should be an exhibit entered into for this was just for some comments I had heard from the panel, in that they weren't necessarily blasting experts on some of it. So I'll defer on whatever the best way is to handle that. But it would be -- I do think it would be appropriate to gain some better understanding about the potential effect from the residue from the blasting on that material and how it would be reused on the site.

CHAIRMAN GETZ: And I take this --
let's link it to the document. It's the permit -- the final decisions and conditions from DES, and it's the Alteration of Terrain Bureau final decision, Condition 22, Subset 4, goes to muck pile management. And I think this is a similar concern with an issue raised by Mr. Harrington on Condition 21 , is the condition appears to be drawn as this is the result that should be achieved. And what we don't have before us is essentially what steps are taken and how is it implemented to achieve those results. And, you know, some of it, I think with Mr. Harrington's
question, maybe go to what DES intends to do. On this issue, we may be able to get an answer based on a blasting expert from the -- I guess from the consultant.

So I guess that's a long way around to say why don't we reserve an exhibit -- that would be Applicant's 47 -- that would, I guess, explain in greater detail how the muck pile management is executed so that the terms of the condition can be met. Does that take care of it, you think?

MR. STELTZER: That handles it. Thank you.
(Applicant's Exhibit 47 reserved.) CHAIRMAN GETZ: All right. Other
questions? Mr. Scott.
INTERROGATORIES BY MR. SCOTT:
Q. Good afternoon, $I$ guess it is.
A. (Walker) Good afternoon.
Q. Whoever on the Panel can best answer it, regarding the rock crushing operations. I was interested in a little bit more detail. Who will be doing that?
A. (Leo) It will be an operation run by the contractor, who has not been selected yet.
Q. And do you have an idea where that will be done and in what proximity to the residences in the area?
\{SEC 2010-01\} [DAY 3 - MORNING SESSION]\{11-03-10\}
A. (Leo) It would be done internal to the site. Further away from the residents, the better. We do some staging areas, I think, where the west ridge access roads starts off. You would probably want to get fairly central to the site, away from the residents.
Q. And associated with that, I assume there will be time constraints if there are noise impacts, that type of thing?
A. (Leo) Yeah, I would think there would be whatever -I don't even know if there's any hours in here. But the 7-to-7 kind of hours.
Q. Broader question: Obviously for the plan as we -initially submitted in the existing regulatory permits you have, in dealing with the regulating agencies, has your plan changed in any significant way?
A. (Leo) Well, I think the comments we had gotten from both Wetlands Bureau and the Alteration of Terrain folks resulted in fairly minor changes to the plan. We added a culvert or two, some additional erosion control, and then we added the monitoring sequencing notes that they wanted to the plan. So there has been some changes. I think they're fairly minor. And we have added those comments to the plans.
\{SEC 2010-01\} [DAY 3 - MORNING SESSION] \{11-03-10\}
Q. Sounds like -- if I may paraphrase, sounds minor, at most?
A. (Leo) Yeah. The roads are in the same locations, for the most part, other than some minor alignment adjustments. All turbines are still in the same locations. It's all pretty minor.
A. (Walker) And all of the changes to those plans, that was the July 9th submittal. And the updated is a subset of the plans. Maybe a dozen or so sheets were changed, and that was submitted to the Committee.

MR. SCOTT: And Mr. Chairman, just to clarify. So, any questions regarding the alternate interconnect route or the step-up station, that would be handled at a different time; is that correct?

CHAIRMAN GETZ: Well, I think what we -- I want to hear argument about how to treat exhibit -- what is this, 44 ? So, yeah, I would say let's defer questions about that exhibit and the alternate route, unless you have general questions about the alternate route. But the questions you would have had before Exhibit 44 was marked for identification --

MR. SCOTT: I can wait until once we discuss it. Thank you.

CHAIRMAN GETZ: Okay. Other
\{SEC 2010-01\} [DAY 3 - MORNING SESSION]\{11-03-10\}
questions? Dr. Kent.
INTERROGATORIES BY DR. KENT:
Q. What's the status of your discussions with the agencies regarding the alternate interconnections?
A. (Walker) Aside from consulting with the Natural Heritage Bureau, we haven't submitted any information to DES or the other resource agencies.

DR. KENT: Thank you. CHAIRMAN GETZ: Other questions? Mr.

Iacopino.
INTERROGATORIES BY MR. IACOPINO:
Q. Along that line -- and I don't know who would be best to answer this. But let's say the alternate route was just a separate project. Would it require as standard dredge and fill permit application, alteration of terrain permit application, and any other resource applications?

MS. GEIGER: Excuse me. Could we get a clarification about what we're talking about in terms of "alternate route"? I want to make sure everybody understands exactly what -- how we are using that term. MR. IACOPINO: The "alternate route" is the alternate transmission line that you've provided in your supplemental materials, as contained within Mr.
\{SEC 2010-01\} [DAY 3 - MORNING SESSION]\{11-03-10\}
[WITNESS PANEL: LEO/RENDALL/WALKER]

Cherian's prefiled testimony, and also provided us with a map -- I don't know what exhibit -- Appendix 42 I think it might have been -- Appendix 42 in your supplemental filing, which is Exhibit 5. And as I understand it, that's also the subject of Applicant Exhibit 44 for identification.

MS. GEIGER: The reason I'm asking for the clarification is that I think that these witnesses, in the documents they submitted this morning, provided information about the part of the route that is on the property of the project site. They have not looked at anything beyond Route 25. So when these -- I think my concern is that these witnesses have in their mind the alternate route being from the switchyard to Route 25. They do not have in their mind a more expansive view that might be reflected in Figure 6-A.

MR. IACOPINO: And right now, that's all I'm -- as I understand it, you haven't identified a location, for instance, for the step-up transformer and --

MS. GEIGER: Correct.
MR. IACOPINO: -- those other parts of the interconnection. But I'm just talking about the line that goes down to Route 25 right now.

CHAIRMAN GETZ: Okay. Let me just
\{SEC 2010-01\} [DAY 3 - MORNING SESSION]\{11-03-10\}
make sure that we're all on the same page. So when we're talking about "alternate route," we're basically talking about the alternative to going down Groton Hollow Road to reach Route 25.

MS. GEIGER: Correct.
CHAIRMAN GETZ: And those other issues are the issues implicated by the substation in the 115 kV . Those are alternatives that may arise because of the issues with respect to the voltage-level interconnection required by PSNH.

MS. GEIGER: Correct.
MR. MULHOLLAND: Mr. Chairman, there's another use of the term "alternate route" that was used for Route 25 versus across the river on Quincy Road, which was the initial proposal. So there's a number of uses of "alternate route."

MR. IACOPINO: Just to make it clear, for the purposes of my question, we're talking about the alternate route that is alternate to going down Groton Hollow Road and is described in what's been marked as Applicant Exhibit 44 for I.D., and is the first portion of what is contained, as $I$ understand it, in Appendix 42 of Exhibit 5. And it's basically the alternate to Groton Hollow -- from Groton Hollow Road down to Route 25, not
\{SEC 2010-01\} [DAY 3 - MORNING SESSION]\{11-03-10\}
using Groton Hollow Road.
BY MR. IACOPINO:
Q. And if I understand correctly, that's what you went out to the field and provided Applicant 44 for identification.
A. (Rendall) That's correct.
Q. Okay. If what's proposed in Applicant 44 for identification was a separate project, would you be required to file a wetlands application?
A. (Rendall) I would view the -- as you can see in the report, I traversed a hundred-foot-wide corridor. And the clearing width for the transmission, the lines, is 34 feet. So there's a lot of room within the corridor that I looked at for them to place the poles and the lines to avoid direct impacts and/or indirect impacts due to clearing. So I made some recommendations in that, so that -- what they could to avoid all direct and/or in direct impacts to wetlands. So it's possible that there could be no wetland impacts and no need for a wetland permit application.
Q. What about alteration of terrain permit application?
A. (Walker) Well, the -- and, Mike, maybe you may want to supplement my answer. But generally, alteration
\{SEC 2010-01\}[DAY 3 - MORNING SESSION]\{11-03-10\}
of terrain is an independent project. It is triggered by 100,000 square feet, about 2-1/2 acres of contiguous disturbed area. Very unlikely that that would reach that threshold. So, an alteration of terrain permit application, it's unlikely that one would be required for that.

Do you agree, Mike?
A. (Leo) I mean, it's a separate -- especially since it's on a separate landowner's property, it would be under a separate application. And it would be under -- likely be under 100,000 square-foot of impact and not require a permit.
Q. And are there any other agencies that you would have to seek a permit from, environmental resource agencies that you're aware of, or any other types of permits that you might need to seek from DES for this portion of the project?
A. (Walker) There's no other state or federal permits that I'm aware of that would be required for that.
Q. I take it, you all aren't the folks to speak to about impacts on historical sites.

Okay. I guess my question then is, if this is proposed as part of the project, does this require amended review by Department of Environmental
\{SEC 2010-01\} [DAY 3 - MORNING SESSION] \{11-03-10\}

Services with regard to your wetlands permit or the alteration of terrain permit which have been previously submitted as Appendix 52 in Exhibit A -I'm sorry, not 52 -- Exhibit 51, the final decisions that we've received on October 8, 2010, from DES?
A. (Walker) I think that we would. And certainly if the decision is made to go with this alternate route, we would certainly consult with DES on the alteration of terrain and the wetlands permit.

My personal thought on this is that it would be treated -- it would be regarded as a fairly minor -- the impacts and the changes are fairly minor. So, with regard to wetlands, I think it can be designed without incurring any, you know, significant new impacts. And I think DES would probably look at it as a minor change.
Q. But it's something you would present to them --
A. (Walker) Yes.
Q. -- to seek an amended final decision and conditions.
A. (Walker) Yes.
Q. I have no further questions about that. I do have some questions just about the N6 turbine.

CHAIRMAN GETZ: Well, let's -- I think
Dr. Kent has a follow-up on your previous questions.
\{SEC 2010-01\} [DAY 3 - MORNING SESSION]\{11-03-10\}

INTERROGATORIES BY MR. KENT:
Q. The stream crossing, can you avoid that?
A. (Rendall) The lines themselves will go across the streams, and there will be clearing within the 50-foot buffer. There are -- let me look at my table. There are streams that cross the -- and they're linear. So there would definitely be clearing within the buffers, the upland riparian buffers of the streams. But if you're outside the banks, that's not jurisdictional. So there would not be any impacts within a jurisdictional area for the placement of poles, because they can move the poles so they would not be put into a stream or a wetland and so forth. The only possible impact would be clearing from in the banks.
Q. So $I$ think what you're saying, so for installation of the poles, we'll have to keep coming in and out, make sure we're not going through a stream with the construction, with the installation equipment.
A. (Rendall) There is an existing skidder road that is being used currently. They're actively logging in this section on the green acre woodlands portion of the property. That skidder road is already -there's a bridge that was built over the perennial
\{SEC 2010-01\}[DAY 3 - MORNING SESSION]\{11-03-10\}
stream. And there are probably -- they may be driving through the streams with the skidder, some of them, because there aren't culverts at some of these intermittent streams. So I guess if the road in that case -- I don't know the process for putting in the poles, and so I don't know how that part would work. So, possibly, yes.
Q. So if I understood you right, you anticipate using that skidder road as much as possible for accessing --
A. (Rendall) For the first -- I'd have to refer to my own . . .
(Witness reviews document.)
Q. So we don't have to go looking for things again, I guess the more important question is that you're going to have a discussion with DES at some point; do you know when that will be, so you'll know what your obligations are?
A. (Walker) Again, that's a question we would -- I'd pass that to the Applicant. It's really up to the Applicant to direct us to DES. We don't work independent of the Applicant. So the answer is I'm not sure, Don.
Q. Thank you.
\{SEC 2010-01\} [DAY 3 - MORNING SESSION] \{11-03-10\}

CHAIRMAN GETZ: Mr. Iacopino.
INTERROGATORIES BY MR. IACOPINO:
Q. Mr. Leo, previously in your testimony there was discussion regarding the 5,500 square feet of affected wetlands in the vicinity of the -- is it a cut and fill at Turbine No. 6, N6? It's on sheet C9-1, I believe.
A. (Leo) It's a cut in the immediate vicinity of --
Q. And that's what causes that largest wetlands impact?
A. (Leo) Well, I guess I think I misspoke. I was kind of looking in the wrong way in the plans. Actually, past N6 is where the wetland impact is. And that provides access to N1 through N5.

So, here is N6. That's the large wetlands impact just above it. That's how they get access to the north ridge.
Q. Okay. So it wasn't for the installation, for instance, of the area where the turbine would actually be. It's a continuation of the road?
A. (Leo) Right. It's the main access road that goes up to the north ridge.
Q. So the elimination of Turbine $N 6$ wouldn't do anything to eliminate that wetlands impact?
A. (Leo) No. There's only a minor 40-square-foot impact
\{SEC 2010-01\} [DAY 3 - MORNING SESSION]\{11-03-10\}
required for N 6.
Q. Okay. Thank you.

CHAIRMAN GETZ: Okay. Other
questions? Mr. Harrington.
INTERROGATORIES BY MR. HARRINGTON:
Q. Just a follow-up. I guess we're into Applicant's 44 with the alternate route --

CHAIRMAN GETZ: Well, actually --
MR. HARRINGTON: We're waiting on
this?
CHAIRMAN GETZ: We were going to hold off on cross-examining on Exhibit 44 itself. I wanted to hear additional argument on that, that issue, because I still have my -- the concerns I expressed earlier in the day. So let's -- and then Mr. Scott, I think, had some similar types of issues. But let's do that separately.

I want to see now if there's any other further questions on the prefiled direct and the supplemental. Ms. Lewis?

MS. LEWIS: I do have a few follow-up questions, if that's okay.

CHAIRMAN GETZ: Follow-ups to questions raised by the Subcommittee?

MS. LEWIS: One was raised from Mr. --
\{SEC 2010-01\} [DAY 3 - MORNING SESSION]\{11-03-10\}
sorry. I forget his last name.
CHAIRMAN GETZ: Mulholland?
MS. LEWIS: -- Mulholland, regarding the blasting that was going to be done just over the Rumney line.

CHAIRMAN GETZ: Okay. Let's proceed through those questions then.

MS. LEWIS: Okay.
INTERROGATORIES BY MS. LEWIS:
Q. Given that the blasting is going to be occurring just over the line, with nearby houses right amongst that area, will there be any structural surveys done on these homes prior to the blasting and, therefore, be able to make a comparison if there are any issues that occur during the blasting?
A. (Leo) We don't have structural surveys as part of the plan right now. Any reputable blasting company will go out, based on their own criteria, and survey homes within a certain distance of the work they're performing. They do that to protect both themselves and the people around them. Most reputable blasting companies have done quite a bit of this work, and they know where to look and what to look for in foundations. So...
\{SEC 2010-01\} [DAY 3 - MORNING SESSION]\{11-03-10\}
Q. So, is that done at the expense of the Applicant or the homeowners?
A. (Leo) That would be not the homeowner.
Q. Okay. Thank you. Is that a routine thing, or is that something that needs to be required as a condition?
A. (Leo) That's a routine thing. There's only a few blasting companies in the New England area that could take on this kind of work. All those companies would conduct some type of a pre-blast survey.
Q. Thank you. My second question just had to do with a little more follow-up on the muck that was discussed. Would there be any muck that was reused along any area where the new transmission lines are proposed? Is that any possibility at all or...
A. (Leo) I mean, there could potentially be some gravel that's put down to firm up the roads for access to the transmission lines.
Q. Okay. Given that the new transmission lines that have been proposed do run directly over the aquifer in that area, is that something that further conditions or further plans would need to be done, to make sure that any of that reused muck somehow does not get into the aquifer?
\{SEC 2010-01\}[DAY 3 - MORNING SESSION]\{11-03-10\}

CHAIRMAN GETZ: Well, I think this question effectively goes to the request made by Mr. Steltzer, that what it appears at this point is these witnesses don't have the knowledge to comment, as I take it, on what the muck pile management plan is or what DES's expectations are. Is that correct?

WITNESS LEO: Well, I understand what their expectations are. It's to keep the muck pile out of surface waters and to manage it with that respect. You know, and we will have downstream controls, filter barriers and things like that, that will help filter out any nitrates leaving the site anywhere.

Her question about, I think the interconnect, is whether or not we'd be transporting any of this rock down into that area. And I think we can certainly, you know, agree not -- agree to not have any of the rock that was blasted on the site, you know, hauled and used off site.

BY MS. LEWIS:
Q. Just one more follow-up on that. Do you know if there would be any blasting necessary to create that new proposed transmission line?
A. (Leo) There would not be any blasting necessary.

MS. LEWIS: Thank you. That's all I
\{SEC 2010-01\}[DAY 3 - MORNING SESSION]\{11-03-10\}
have.
CHAIRMAN GETZ: Okay. Thank you.
Rather than do redirect now, I think we should hold that until the -- until we make a decision on what to do about Exhibit 44, unless there are issues that you would like to address on redirect. Maybe I'll give you the option.

MR. PATCH: That's fine. We don't need to at this point. Thank you.

CHAIRMAN GETZ: Then the witnesses will be subject to recall.

I'd like to take the lunch recess now, but this is how I would suggest that we proceed: Effectively, this panel is excused, pending how we -- the decision to be made about the appropriate treatment of Exhibit 44. And I want to consider over the lunch break what's the best approach to dealing with that issue and to make sure everyone gets an opportunity to weigh in on how we should proceed.

But Mr. Mulholland, is the expectation that Mr. Roth will be here this afternoon?

MR. MULHOLLAND: Yes.
CHAIRMAN GETZ: I'd like to get on the record his cross-examination of Mr . Gravel. It's almost 12:30. I would suggest we resume at $1: 45$ and that the
\{SEC 2010-01\} [DAY 3 - MORNING SESSION]\{11-03-10\}
first thing we do then is pick up with the completion of the cross-examination of Mr. Gravel. We would hear from Mr. Roth and then turn to the Subcommittee for an opportunity for redirect. And hopefully I'll be able to give some more concrete guidance about how to deal with the alternate route to the Groton Hollow Road distribution line.

But let me re-emphasize a couple things, because $I$ think this goes to, in the first instance, the motion to suspend that was filed by the Buttolph Group and that we dealt with at the prehearing conference, and it goes to comments made at the beginning of the hearing, and it also goes to some comments made today, and these are some of my concerns at this juncture. Part of it was taken up by Mr. Iacopino on this alternative information. It looks like there may or may not have to be some DES review of some sort. Another issue is, of course, the weight to be given to this type of information. Ultimately, it's a -- both sides of the coin are implicated here. What's the -- and I'm looking at R.S.A. 162-H:16, and it goes to what's the Applicant's burden of proof with respect the Subsection 4, the things that we must find in order to approve an application. So, of course, the Applicant has the burden of proving certain
issues by a preponderance of the evidence. And then we must find, among other things, that the project would not have an unreasonable adverse effect on a list of items, including aesthetics, historic sites, air and water quality, the natural environment, and the public safety. So, of course, the obligation is on the Applicant to prove that there will not be unreasonable adverse effects. So my concern is what is the status of the record and how we would address all of those issues. And it also implicates where we are with the historic sites and any interaction with the Division of Historic Resources. And I've also got concerns about appropriate measures for due process, especially with this newer information, to make sure the parties and Public Counsel have a way to address those issues, conduct the cross-examination in a fair way. So those are my concerns at this point.

I'm prepared to do a couple of things.
I think maybe the best way is to give the parties an opportunity to think about these issues today and have argument tomorrow morning on those issues, on what's the best way to proceed, and, of course, give some time for the parties, if they can reach an agreement on a way to proceed. That certainly would be a useful measure. But if there's no agreement among the parties, then we'll take
argument and be prepared to rule on how we should proceed with the remainder of the case.

But having said all that, I'd like to get the -- complete the Gravel testimony. Certainly the Applicant, I think, should be permitted to make its case. And then I think what we were going to try to do is accommodate Public Counsel's witness, Mr. Tocci, his schedule, and to conduct the direct and cross-examination of him this afternoon.

So, any questions before we take the
lunch recess?
(No verbal response)
CHAIRMAN GETZ: Okay. Hearing
nothing, then let's recess and resume at 1:45. Thank you.
(WHEREUPON, the Day 3 AM Session
recessed for lunch at 12:32 p.m.
Day 3 Afternoon Session to resume under separate cover so designated.)
\{SEC 2010-01\} [DAY 3 - MORNING SESSION]\{11-03-10\}
[WITNESS PANEL: LEO/RENDALL/WALKER]

CERTIFICATE<br>I, Susan J. Robidas, a Licensed Shorthand Court Reporter and Notary Public of the State of New Hampshire, do hereby certify that the foregoing is a true and accurate transcript of my stenographic notes of these proceedings taken at the place and on the date hereinbefore set forth, to the best of my skill and ability under the conditions present at the time.<br>I further certify that I am neither attorney or counsel for, nor related to or employed by any of the parties to the action; 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.<br>Susan J. Robidas, LCR/RPR<br>Licensed Shorthand Court Reporter Registered Professional Reporter N.H. LCR No. 44 (RSA 310-A:173)

SEC 2010-01 DAY 3 MORNING SESSION - November 3, 2010
GROTON WIND, LLC

| \$ | $\begin{array}{r} \text { 70:24;71:18 } \\ \text { 15-minute (1) } \end{array}$ | $\begin{array}{\|l\|} \hline 28(\mathbf{2}) \\ 33: 22 ; 35: 13 \end{array}$ | $\begin{aligned} & 12 ; 124: 5,15 \\ & 45(5) \end{aligned}$ | $\begin{gathered} \text { 8-1/2-by-11 (1) } \\ 82: 24 \end{gathered}$ |
| :---: | :---: | :---: | :---: | :---: |
| \$150,00 | 16 (1) | 50:24;70:13 | $83: 3$ | 9 |
| $\begin{aligned} & \text { 70:16;83:15;84:5 } \\ & \mathbf{\$ 2 0 , 0 0 0 ( 2 )} \\ & 71: 3,19 \end{aligned}$ | $\begin{aligned} & \text { 16-1/2 (1) } \\ & 71: 12 \\ & 162-\mathrm{H} 16(1) \end{aligned}$ | $\begin{aligned} & \text { 29th (3) } \\ & \text { 49:23;56:11;70:2 } \\ & \text { 2nd (2) } \\ & 52: 22 ; 53: 13 \end{aligned}$ | $\begin{aligned} & 46(2) \\ & 103: 2,7 \\ & \mathbf{4 7 ( 2 )} \\ & 108: 6,12 \end{aligned}$ | $\begin{aligned} & 9(2) \\ & 24: 10 ; 25: 1 \\ & 90(5) \end{aligned}$ |
| 0 | $125: 21$$17(\mathbf{1})$$34: 16$$\mathbf{1 8 ( 2 )}$$34: 15,16$$19(4)$$25: 19 ; 26: 9,9,13$ | 3 | $\begin{aligned} & 48 \text { (2) } \\ & 15: 10,11 \end{aligned}$ | $\begin{aligned} & \text { 63:2,16;65:10;90:14, } \\ & 15 \end{aligned}$ |
| $\begin{array}{r} \mathbf{0 9} \text { (1) } \\ 8: 23 \end{array}$ |  | $\begin{aligned} & 3 \text { (10) } \\ & \text { 21:6;22:1;74:7,18; } \\ & 79: 20 ; 80: 13,21,23 \\ & \text { 127:15,17 } \end{aligned}$ | $\begin{aligned} & 49(5) \\ & 21: 6,11,20,21 ; 22: 6 \\ & \mathbf{4 A ( 2 )} \end{aligned}$ | $\begin{aligned} & 93 \text { (1) } \\ & 73: 18 \\ & 9 \text { th }(7) \end{aligned}$ |
| 1 |  |  | 93:20,22 | $\begin{aligned} & 49: 9,12,24 ; 50: 18 \\ & 51: 11,22 ; 110: 8 \end{aligned}$ |
| $\begin{aligned} & 1(6) \\ & \quad 42: 10 ; 48: 1,15 ; 74: 6 ; \end{aligned}$ | 2 | $\begin{aligned} & 30 \text { (2) } \\ & 63: 19 ; 64: 7 \end{aligned}$ |  | A |
|  | 2 (2) | 50:14 | :10;13:11,14 | AA (1) |
| 1.6 $96: 1$ | 74:6;82:20 | 33 (1) | 15:13;48:4,12,16;67:12; | 32:7 |
| 1.65 (2) | 2,000 (8) | 6:12 | 89:11;102:10;112:4; | able (13) |
| 71:10;72:13 | 76:18;78:4,13;82:11, | 34 (3) | 113:23 | 8:4,8;20:3;41:12;69:8; |
| 1:45 (2) $124: 24: 127: 1$ | 13;90:22;91:14;97:7 $\mathbf{2 0}(\mathbf{1 3})$ | $7: 17 ; 22: 3 ; 114: 13$ $\mathbf{3 5}(\mathbf{1})$ | $\begin{aligned} & \mathbf{5 , 5 0 0}(3) \\ & 84: 12,18 ; 119: 4 \end{aligned}$ | $\begin{aligned} & 88: 17 ; 92: 15 ; 100: 13 ; \\ & 104: 1 ; 106: 12 ; 108: 2 \end{aligned}$ |
| 10 (7) | 24:23;25:16;26:9,10, | 7:23 | 5.3 (1) | 121:14;125:4 |
|  | 23;29:13,13;63:14,19; | 36 (1) | 16:10 | above (3) |
| $42: 11 ; 64: 7 ; 71: 12 ; 96: 20$ | 64:7;102:11,12;103:10 | 8:6 | 50 (2) | 76:22;77:2;119:15 |
| 10/26 (2) | 20,000 (1) | 37 (1) | 16:19;65:14 | ABPP (4) |
| 34:14;36:12 | 70:23 | 8:12 | 50-by-80-foot (1) | 26:12,16;27:17;32:8 |
| 10:11 (1) | 200 (2) | 38 (1) | 92:24 | absence (1) |
| 46:14 | 42:4,22 | 8:16 | 50-foot (1) | 106:9 |
| 10:36 (1) | $\begin{gathered} 2007 \text { (1) } \\ 33: 4 \end{gathered}$ | 39 (1) | $\begin{gathered} 117: 5 \\ \text { 50-meter (1) } \end{gathered}$ | $\begin{gathered} \text { Absent (1) } \\ 57: 19 \end{gathered}$ |
|  |  | 8:16 |  |  |
| 100 (1) | $\begin{aligned} & 2009(4) \\ & 9: 2 ; 13: 21 ; 14: 3 ; 34: 13 \end{aligned}$ | 3-percent (1) | $\begin{gathered} 65: 9 \\ 51(4) \end{gathered}$ | $\begin{aligned} & \text { abundance (1) } \\ & 31: 14 \end{aligned}$ |
| 65:14 |  | 59:22 |  |  |
| 100,000 (2) | 2010 (8) | 3rd (1) | 89:2,10,10,116:4 | abut (1) |
| 115:2,11 | 8:24;9:5;13:12,22; | 70:20 | 52 (2) | 62:15 |
| 100-meter (1) 65:9 | $\begin{aligned} & \text { 14:2,12;49:18;116:5 } \\ & \mathbf{2 0 1 0 - 0 1 ~ ( 1 ) ~} \end{aligned}$ | 4 | $\begin{aligned} & \text { 5-something (1) } \\ & 15: 2 \end{aligned}$ | $\begin{array}{\|l\|} \text { abutter (3) } \\ 63: 21,23 ; 64: 1 \end{array}$ |
| 11 (1) | $\begin{gathered} 5: 4 \\ \text { 20th (1) } \end{gathered}$ |  |  | 63:12 |
| 46:9 |  | 4 (2) <br> 107:18;125:22 | 6 |  |
| $\begin{aligned} & 115(3) \\ & 8: 1,2 ; 113: 7 \end{aligned}$ | $21(3)$ | $\begin{array}{r} 107: 1 \\ 4.5(4) \end{array}$ | 6 | $\begin{gathered} \text { accept (1) } \\ 6: 22 \end{gathered}$ |
| $\begin{array}{r} 116 \text { (1) } \\ 96: 17 \end{array}$ | $\begin{aligned} & \text { 90:19;98:24;107:20 } \\ & \mathbf{2 - 1 / 2 ~ ( 1 ) ~} \end{aligned}$ | 13:20; $15: 2,21 ; 18: 18$ 40 (4) | $\begin{aligned} & 6(2) \\ & 68: 9 ; 119: 6 \end{aligned}$ | $\begin{gathered} \text { acceptable (2) } \\ 71: 19 ; 84: 4 \end{gathered}$ |
| 116-acre (1) | 115:2 | 8:18;71:7,9,15 | 6.4 (3) | access (10) |
| 96:22 | 21st (1) | 40-square-foot (1) | 13:21;15:2,21 | 58:22,22;86:9;101:24; |
| 119 (1) | 22 (2)93:7;107:17 | 119:24 | 6-A (1) | 102:3;109:3;119:13,15, |
| 86:2 |  | 41 (1) $9: 18$ | 112:16 | $\begin{gathered} 20 ; 122: 17 \\ \text { accessing (1) } \end{gathered}$ |
| 12 (4) $30: 19 \cdot 46: 9,9 \cdot 90: 4$ | 22nd (4) | 42 (6) | 7 |  |
| 30:19;46:9,9;90:4 12.30 (1) |  |  | 7 (2) | accident (1) |
| 124:24 | 49:13,18;51:3,14 $23 \text { (1) }$ | $\begin{aligned} & 9: 24 ; 14: 1 ; 54: 17 ; \\ & 112: 2,3 ; 113: 22 \end{aligned}$ |  | 22:23 |
| 12:32 (1) | 16:20 | 42-percent (1)14:6 | 84:16,16 | accommodate (1) |
| 127:16 |  |  | 7-to-7 (1) | 127:7 |
| 12th (4) | 39:13 $\mathbf{2 5 ( 8 )}$ | 43 (4) | 109:11 | $\begin{array}{\|l} \text { accomplish (1) } \\ 98: 12 \end{array}$ |
| 13:12,15;24:11;25:6 | $\begin{aligned} & 92: 22 ; 100: 9 ; 112: 12, \\ & 14,23 ; 113: 4,14,24 \end{aligned}$ | $\begin{aligned} & \text { 46:17;49:19;50:6; } \\ & 51: 14 \end{aligned}$ |  |  |
| $14 \text { (2) }$ |  | $\begin{gathered} 51: 14 \\ 44(20) \end{gathered}$ | 8 | $\begin{aligned} & \text { accordance (1) } \\ & 56: 19 \end{aligned}$ |
| $\begin{aligned} & 15(4) \\ & 31: 1 ; 90: 11 ; 96: 20 \\ & 102: 11 \end{aligned}$ | 25th (1) 31:4 26 (1) | $\begin{aligned} & 15: 9 ; 46: 18 ; 53: 10,10 \\ & 23 ; 56: 6,9 ; 58: 4,6,10 \\ & 110: 17,21 ; 112: 5 \end{aligned}$ | $\begin{aligned} & 8(4) \\ & 76: 3 ; 77: 4 ; 82: 5 ; 116: 5 \\ & \mathbf{8 / 2 4 ( 2 )} \end{aligned}$ | $\begin{aligned} & \text { according (1) } \\ & 82: 10 \\ & \text { accounting (1) } \end{aligned}$ |
| 150 (2) | 33:4 | 113:21;114:4,7;120:6, | 34:13;36:12 | 44:20 |

SEC 2010-01 DAY 3 MORNING SESSION - November 3, 2010
GROTON WIND, LLC

| achieve (1) | adopt (1) | 110:4 | 16 | applying (1) |
| :---: | :---: | :---: | :---: | :---: |
| 107:23 | 89:7 | Allow (1) | anomaly (2) | 69:13 |
| achieved (1) | adopted (2) | 41:20 | 14:23;16:8 | appreciate (2) |
| 107:21 | 67:22;68:7 | allows (2) | answered (2) | 41:21;64:3 |
| acoustic (5) | advance (1) | 6:14,1 | 22:9;27:1 | approach (3) |
| 14:1;18:24;19:5,19; | 103:16 | almost (1) | anticipate (8) | 18:21;58:10;124:16 |
| 20:7 | adve | 124:23 | 23:23;39:12;59:18 | appropriate (13) |
| acre (2) | 27:5,8;29:17;95:16 | alone (1) | 63:10,17;64:6;92:19; | 28:11;75:5;78:24; |
| 69:15;117 | 21,22;126:3,7 | 19:8 | 118:8 | 79:6;80:10;81:2,3; |
| acres (10) | advice | along (4) | anticipated (2) | 102:19;104:16;106:1; |
| 71:7,9,10,12,15;72:13; | 29:1 | 6:19;68:3;11 | 62:24;79:21 | 107:10;124:14;126:12 |
| 96:1,2,17;115:2 | Advisory (4) | 122:14 | anticipation (1) | approval (1) |
| across (4) | 33:3,4,6,7 | alteration (11) | 63:9 | 76:14 |
| 58:24;96:19;113:14; | aerobic (1) | 50:11,16,22;107:17; | AOT (4) | approve (1) |
| 117:3 | 06:15 | 109:18;111:16;114:22, | 89:3,15;90:4;93:7 | $125: 23$ |
| Act (3) | aesthetics (1) | 24;115:4;116:2,8 | apologize (5) | approximately (1) |
| 33:4;37:16 | 126:4 | alterations (1) | 15:15;25:7;51:9,17 | 22:8 |
| action (2) | affect (4) | 92:17 | 55:3 | apt (1) |
| 98:6,21 | 59:5,7,19;106:2 | alternate | apparently (2) | 17:8 |
| actions (1) | affected (1) | 12:15;54:18;110:12 | 34:19;51:10 | Aquatic (1) |
| 52:5 | 119:5 | 18,20;111:4,13,20,22, | appeal (1) | 70:1 |
| actively | affecting (2) | 23;112:14;113:2,13,16, | 84:7 | aquifer (27) |
| 117:21 | 40:12;41:2 | 19,19,23;116:7;120:7; | appear (2) | 72:20;75:7,18 |
| activities | affects (1) | 125:6 | 5:10;31:8 | 76:12,23,24;77:2,2,8,12, |
| 14:10;61:10;64:11,15; | 96:9 | alterna | appearances | 17,19,21;78:5,14,16,21, |
| 78:4;79:11;91:1,5 | afternoon | 29:8;52:17;56:14 | 5:5 | 21,24;79:1,10,14,18; |
| activity (14) | 46:7;108:16, | 57:3;105:11,12,12 | appearing | 106:24;122:20,24 |
| 14:8,9,15;16:7,18; | 124:20;127:9,1 | 5:16 | :21 | aquifers (1) |
| 18:13;19:1,5,13;20:8,13; | again (14) | alternatives (1) | appears (2) | 77:17 |
| 79:12;90:16;98:18 | 19:14;23:9;24:9 | 13:8 | 107:20;123:3 | area (42) |
| actually (25) | 29:12;36:11;50:8,23; | although (3) | Appendix (11) | 8:17;17:5,18,19 |
| $10: 10 ; 14: 11 ; 15: 15$ | 53:22;55:2,24;74:15; | 50:19;74:8,11 | 15:6,9,11;27:11; | 33:16;35:10;36:15,20; |
| 16:19;29:10;32:12;38:7; | 79:2;118:14,19 | altitude (1) | 54:17;82:22;89:10 | 38:2;42:4;56:23;57:5; |
| $43: 12 ; 48: 7 ; 52: 11 ; 53: 19$ | agencies (11) | 18:9 | 112:2,3;113:22;116:3 | 60:2;61:24;66:21,24; |
| 54:2,17;64:21;69:2; | 38:9,12;69:3;70:4 | always (2) | applicable (2) | 74:5,12;75:3,9;77:11,12, |
| 72:7;78:21;79:10;82:23; | 75:3;84:2;109:15;111:4, | 72:9;101:6 | 27:2;41:13 | 16;78:20;80:24;92:24; |
| 89:10;94:9;99:2;119:11, | 7;115:13,15 | amenable (1) | Applicant (26) | 94:1,6,11;96:10,11,12, |
| 19;120:8 | agency (1) | 88:18 | 5:10;6:13;9:15;12:9 | 23;108:24;115:3; |
| ADAM (4) | 71:4 | amended (2) | 15:13;32:10;51:14; | 117:11;119:18;121:12; |
| 11:4,6,11;12:2 | agent (1) | 115:24;116:19 | 70:15;83:22;88:18;90:8; | 122:8,14,21;123:15 |
| added (3) | 95:2 | amendment (1) | 102:20;103:2,23; | areas (15) |
| 109:20,21, | ago (1) | 52:24 | 105:24;112:5;113:21; | 36:4;56:17;59:24,24; |
| addition (3) | 4:1 | among (2) | 114:4,7;118:20,21,22; | 61:13;66:4;77:17;78:13; |
| 27:6;72:12;96:13 | agree (11) | 126:2,24 | 122:1;125:24;126:6; | 90:22;91:6,9,10;99:18; |
| additional (9) | 29:6;53:1;70:16; | amongst (2) | 127:5 | 104:8;109:3 |
| 10:3;52:3;59:24 | 89:13,15;95:16,19;98:6; | 20:9;121:1 | Applicant's (13) | argument (7) |
| 70:12;78:20;89:18; | 115:7;123:16,16 | amount (6) | 7:17;28:9;46:17,18, | 30:6,11;58:9;110:16; |
| 100:5;109:20;120:13 | agreed (6) | 7:19;71:23;83:23 | 20;53:10;82:20;103:7; | 120:13;126:20;127:1 |
| address (9) | 6:13,17;8:20;10:4; | 84:1,10;105:3 | 104:15;108:6,12;120:6; | arise (2) |
| 6:2,5;55:1;58:5;67:20; | 84:9;90 | Anabat (1) | 125:21 | 103:4;113:8 |
| 102:16;124:6;126:9,14 | agreeing (1) | 14:20 | application (28) | armed (3) |
| addressed (1) | 23:12 | anaerobic | 5:5;12:4;48:1;50 | 70:11,16;83:24 |
| 103:24 | agreement (3) | 06 | 13,17,18;51:2;52:24; | arms (1) |
| addressing (1) | 69:4;126:22,24 | analysis (1) | 54:17;69:1,4,20;75:21; | 23:10 |
| 50:21 | agrees (2) | 34: | 76:5,7;82:6,21;83:3; | Army (4) |
| adequate (3) | 30:8;105: | analytics | 89:11;111:15,16;114:9, | 68:11,21;69:21;70:18 |
| 67:15;68:4;89:19 | ahead (2) | 10:1 | 21,22;115:5,10;125:23 | arose (1) |
| adhering (1) | 44:7;102:2 | and/or (3) | applications (1) | 69:10 |
| 59:11 | air (2) | 73:21;114:15,18 | 111:17 | around (9) |
| adjusted (1) | 106:10;126:4 | annual (1) | applied (1) | $14: 21 ; 23: 10 ; 24: 12$ |
| 45:2 | airport (1) | 10:16 | 71:9 | $74: 6 ; 89: 1 ; 96: 16 ; 101: 13$ |
| adjustments (1) | 101:12 | anomalies (5) | apply (1) | $108: 4 ; 121: 21$ |
| 110:5 | alignment (1) | 16:15,17;17:2;18:11, | 93:17 | artifacts (1) |

GROTON WIND, LLC

| 43:7 | 18,20;76:21;86:21;89:4; | become (1) | blasting (43) | building (3) |
| :---: | :---: | :---: | :---: | :---: |
| ascertain (1) | 115:15,19 | 44:16 | 72:21;73:5,12,14,15, | 60:2,22;91: |
| 82:13 | away (8) | becomes (1) | 21;74:17,22;75:4;76:16; | built (7) |
| Aside (1) | 65:21;66:4;94:21; | 106:15 | 78:3;80:21,22;87:16,23; | 61:1;64:14,14,18,18; |
| 111:5 | 99:22;106:12,14;109:2,5 | bed (1) | 88:4;90:22;91:1,4,15,23; | 67:24;117:24 |
| aspect (2) |  | 88:15 | 92:1;93:8,12;94:10,10, | bulk (1) |
| 70:23;72:2 | B | bedding (1) | 18;95:2;97:8;105:22; | 79:10 |
| assertions (1) |  | 92:10 | 106:23;107:7,12;108:2; | burden (2) |
| 30:21 | back (17) | beforehand (1) | 121:4,10,13,15,17,21; | 125:22,24 |
| assess (3) | 17:24;26:22;29:12; | 38:10 | 122:8;123:21,23 | Bureau (5) |
| 20:22;27:7;37:22 | 32:21;35:11;38:6;46:21; | beg (1) | blasting's (1) | 50:12;57:2;107:17; |
| assessing (1) | 54:11;64:9;66:2;83:1; | 30:14 | 91:11 | 109:18;111:6 |
| 24:5 | 85:1,15;97:6;99:12; | beginning (1) | blind (1) | BUTTOLPH (51) |
| assessment (1) | 100:9;101:5 | 125:12 | 44:14 | 5:13,14;13:5,6,8; |
| 8:11 | bad (2) | begins (2) | blocking (1) | 15:20;21:6,10,14,16,22; |
| assistance (2) | 97:23;98:1 | 75:8;77:2 | 99:20 | 22:1,1,7;24:23,24;25:2, |
| 69:19;71:6 | Baker (12) | behalf (1) | blowing (1) | 6,9,10,15,16,18,19,21; |
| assisting (1) | 36:7;58:24;59:2,5,14, | 50:10 | 89:1 | 26:9,10,13,23,23;29:13; |
| 69:14 | 20;60:8;62:11,15;64:1; | behaviors (1) | BMP (2) | 30:3,9,14,17,18;31:1; |
| associated (3) | 77:9,18 | 43:13 | 90:5;94:5 | 32:23;34:9,12,15,16,16; |
| 60:1;80:24;109:6 | balance (2) | below (2) | Board (1) | 37:10,12;38:21;45:24; |
| assume (5) | 40:12;41:23 | 18:6;91:2 | 31:3 | 46:2;66:9,10;125:11 |
| 9:8;45:24;85:16; | bald (7) | benefit (1) | bodies (1) | Buttolph's (1) |
| 98:24;109:6 | 34:14,18;35:1,17; | 52:3 | 36:2 | 30:21 |
| Assuming (1) | 36:1;37:15,17 | best (20) | border (2) | buttressing (1) |
| 102:10 | banks (2) | 51:15;55:4,18;58:9; | 83:9,12 | 65:13 |
| assured (1) | 117:10,15 | 61:9;62:22;74:21,23; | both (11) |  |
| 67:5 | barriers (2) | 76:15;81:3;87:15;88:21; | 12:20;44:21;51:7; | C |
| attached (1) | 61:13;123:1 | 90:21;93:7;107:8; | 52:17;68:12,21,23;77:8; |  |
| 51:4 | barring (1) | 108:18;111:12;124:16; | 109:18;121:20;125:19 | C-9.1 (1) |
| attachments (2) | 101:19 | 126:18,21 | bottom (3) | 86:1 |
| 49:13;50:2 | based (16) | better (9) | 21:23;22:3;102:6 | C9-1 (1) |
| attempt (2) | 10:4;18:20;20:3; | 28:17;29:9;32:10; | break (4) | 119:7 |
| $81: 10 ; 99: 19$ | 22:22;35:3;40:8,14; | 35:12;67:18;72:9;104:6; | 51:12;100:12,21; | calculate (1) |
| attended (1) | 45:2,4;53:5;54:15; | 107:10;109:2 | 124:15 | 24:6 |
| 62:23 | 56:12;71:23;98:20; | beyond (2) | breakdown (1) | calculation (3) |
| attention (2) | 108:2;121:18 | 23:15;112:1 | 101:19 | 6:14;10:6;71:5 |
| 33:21;34:15 | basically (16) | biologist (1) | breakdowns (1) | calculations (1) |
| attracted (1) | 14:14,23;16:6,20; | 11:14 | 103:5 | 10:4 |
| 43:7 | 20:16;28:21;37:18; | bird (6) | breeding (2) | call (1) |
| audible (1) | 38:13;45:6;55:11;77:8; | 11:18;23:18,19;42:20; | 16:3;36:4 | 26:11 |
| 40:20 | 100:14,21;104:14;113:2, | 43:2,2 | bridge (1) | calling (2) |
| audited (1) | 23 | birds (17) | 117:24 | 16:14,17 |
| 8:21 | basis (5) | 22:12;27:5,8;39:3,9, | brief (2) | calls (13) |
| August (1) | 39:13;40:5;49:11; | 11,14,22;40:8,14,21; | 32:5,8 | 13:20,21;14:9,21,22; |
| 72:19 | 52:4,23 | 42:21,21;43:6;44:15,23, | briefly (4) | 15:21,21;16:10,21;17:8, |
| automatically (1) | bat (15) | 24 | 25:24;50:7,14,23 | $10 ; 18: 18,19$ |
| 28:5 | 9:20;11:18;14:8,12, | bird's (1) | bring (3) | came (6) |
| available (6) | 19,21;17:10,17,21; | 40:16 | 46:12;92:12;99:21 | 49:8,10;52:8;58:8; |
| 13:3;21:1;37:23; | 18:24;19:19,20;20:7; | bit (9) | Broader (1) | 71:3,8 |
| 39:18;57:23;75:22 | 26:12;27:10 | 23:5;28:10;67:12,18; | 109:12 | can (55) |
| avian (4) | bats (15) | 68:10;78:10;106:2; | Brook (15) | 7:5;9:1;15:3;19:2,21; |
| 22:11;23:15;26:12; | 13:18,24;16:4,6,12; | 108:20;121:22 | 58:21,23;59:5,6,14,19; | 20:1,4,9,16,20;28:7; |
| 27:9 | 17:4,5,13,18;20:20;39:4, | bladed (1) | 60:8;63:13;64:2;65:8, | 30:7,10;47:20;50:4; |
| avoid (8) | 9,11;40:21;44:15 | 42:12 | 12,21,22,24;66:21 | 51:14;53:21;55:4;67:20; |
| 37:22,22;43:18;75:6; | beach (1) | blades (1) | Brustlin (3) | 72:9;75:24;79:7;80:2,9; |
| 86:11;114:15,18;117:2 | 101:12 | 40:9 | 47:13,15,17 | 82:13;83:2;84:23;85:1, |
| avoidance (1) | Bear (1) | blast (4) | buffer (1) | 1,3;87:12;90:4,21;93:3, |
| 43:13 | 19:14 | 94:1,6;95:3;106:18 | 117:5 | 6,12,15,16,18;94:1; |
| avoided (4) | bearings (1) | blasted (4) | buffers (3) | 99:21;100:4;102:3,15, |
| 43:17,19,20;96:15 | 92:22 | 94:3,23;95:5;123:17 | 96:15;117:8,9 | 17;104:4;108:8,18; |
| aware (11) | became (1) | blasters (1) | build (2) | 110:22;114:10;116:13; |
| 40:18;65:8;75:7,11, | 97:22 | 93:10 | 87:12;95:22 | 117:2,12;123:15;126:22 |


| canopy (1) | 39:5;44:6;45:15,18,22; | 6:14,17 | 84:5;89:6,7,21 | 5:4 |
| :---: | :---: | :---: | :---: | :---: |
| 18.6 | 46:3,10,21;49:17;51:6,9, | clarification (2) | commitment (3) | concerns (10) |
| capacity (3) | 13,20;52:2,19;53:7,12, | 111:19;112:8 | 28:14,21;102:15 | 41:13;54:23;62:4; |
| 6:8,17;11:13 | 15;54:4,8,11,14;55:5,20; | clarify (5) | commits (1) | 73:22;99:6;107:2; |
| car (1) | 57:24;58:14;63:6,20; | 10:20;45:23;51:19 | 27:20 | 120:14;125:14;126:12 |
| 101:1 | 65:3;66:8,13;75:24; | 67:12;110:12 | committed (4) | 16 |
| carbon (1) | 76:8;79:23;80:3;82:1, | Clark (10) | 24:14;26:1;27:6;28:1 | conclude (3) |
| 6:14 | 15;83:4;85:11,15,19; | 58:21,23;59:5,14,18; | Committee (19) | 19:21,22;36:23 |
| carcasses (3) | 97:1;102:14,17;103:2, | 60:8;64:2,2;65:8;66:21 | 5:4;7:9,9;9:6;11:22; | concluded (2) |
| 45:6,8,9 | 19,20;104:5,21;105:20; | clause (1) | 32:16;33:3,4,6,8;51:21; | 14:3;38:16 |
| care (3) | 107:14;108:13;110:11, | 37:18 | 53:1,6;56:6;62:2;75:1; | conclusion (3) |
| 90:17;98:13;108:9 | 15,24;111:9;112:24; | clear (10) | 82:23;83:23;110:10 | 29:20;37:24;96:8 |
| careful (1) | 113:6,12;116:23;119:1; | 25:8;48:14,20;57:9 | committing (1) | conclusions (1) |
| 41:11 | 120:3,8,11,22;121:2,6; | 63:22;70:7,9;74:16; | 27:17 | 30:11 |
| carry (1) | 123:1;124:2,9,22;127:13 | 89:9;113:17 | common (1) | concrete (2) |
| 38:8 | Chairman's (1) | clearing (7) | 72:6 | 92:14;125:5 |
| carrying (1) | 66:10 | 72:14;105:14;114:12, | companies (4) | condition (11) |
| 100:11 | chance (2) | 16;117:4,8,15 | 80:5;121:22;122:8,9 | 83:17;84:6;88:18 |
| cars (1) | 28:19;60:20 | clearly (1) | company (15) | 93:6;102:19,21;107:17, |
| 60:24 | change (18) | 80:7 | 8:21;74:11;75:18; | 20,20;108:8;122:6 |
| case (15) | 12:16;15:23;21:4 | climate (4) | 84:7,9;86:24;87:9,17,24; | conditions (23) |
| 16:16;17:16;27:23; | 24:9;29:2;30:17;32:3; | 63:1,10,15;64:8 | 88:1;93:9,12,14;100:2; | 59:10;62:3,21;75:1; |
| 30:6;35:1;38:11;76:1,2; | 59:13,18,22;63:1,9; | climatic (2) | 121:17 | 76:14;79:4;81:3;87:6, |
| 80:7,13;101:2;104:15; | 64:12;70:23;71:23;87:7; | 64:15,19 | compare (2) | 14;88:22;89:3,5,7,14,14, |
| 118:5;127:2,5 | 89:8;116:16 | climatology (1) | 20:9,21 | 18,22;90:1,2;103:3; |
| cases (1) | changed (4) | 62:2 | comparison (1) | 107:16;116:19;122:22 |
| 73:11 | 67:9;98:18;109:15 | close (2) | 121:14 | conduct (12) |
| cash (1) | 110:10 | 36:8;72:14 | compilation (1) | 11:17;24:20;26:7; |
| 71:7 | changes (8) | Closer (1) | 74:2 | 38:8;45:19;46:12;58:1, |
| cause (2) | 64:15,19;66:23;92:19; | 46:9 | compile (1) | 7,8;122:10;126:15; |
| 8:8;105:3 | 109:19,23;110:7;116:12 | closest (2) | 104:11 | 127:8 |
| caused (4) | changing (1) | 31:24;83:1 | complete (3) | conducted (8) |
| 28:2;59:13;73:22 | 60:5 | closing (1) | 9:12;61:7;127 | 19:10;20:6;24:16 |
| 98:16 | characteristics (3) | 8:3 | completed (1) | 26:3;30:22;38:2;44:22; |
| causes (1) | 42:19;64:13,17 | Coast (9) | 60:11 | 46:5 |
| 119:9 | check (3) | 22:15,15,17;23:13,14, | completion (1) | conducting (1) |
| cautioned (2) | 51:11;57:2,6 | 22;24:3,5,6 | 125:1 | 46:1 |
| 11:5;47:2 | Cherian (6) | coin (1) | comply (2) | conference (4) |
| Cell (1) | 54:19;56:14;103:24; | 125:20 | 26:15;89:14 | 49:8,10;52:7;125:12 |
| 101:22 | 104:4,8,14 | colleague (1) | component (1) | confidential (6) |
| central (1) | Cherian's (3) | 5:11 | 69:14 | 6:9,16,18,20;9:8;10:9 |
| 109:5 | 6:15;7:2;112:1 | collect (1) | components (2) | confidentiality (1) |
| Century (1) | Cheryl (2) | 61:14 | 69:5;100:3 | 9:1 |
| 63:2 | 5:17;66:1 | collected (4) | comprehensive (1) | confluence (1) |
| certain (5) | chief (1) | 12:17;19:9;36:12 | 26:16 | 59:13 |
| 18:8;71:2;78:6; | 106:22 | 40:15 | comprise (1) | confused (2) |
| 121:19;125:24 | Christine (1) | collision (1) | 96:20 | 18:2;19:14 |
| certainly (13) | 58:17 | 41:10 | comprised (1) | connecting (1) |
| 30:7;64:20;78:19; | circles (1) | coming (5) | 16:19 | 22:19 |
| 81:11;93:18;99:16; | 16:12 | 17:24;41:2;55:3 | concentrated (1) | connection (1) |
| 100:7;101:20;116:6,8; | circling (1) | 101:17;117:1 | 94:24 | 20:17 |
| 123:16;126:23;127:4 | 17:24 | comment (4) | concentrations (1) | consensus (1) |
| certificate (2) | circulated | 38:12;41:11;99:5 | 95:2 | 70:7 |
| 84:6;89:22 | 51:23 | 123:4 | concern (19) | consequences (1) |
| cetera (2) | circumstances (3) | commented (1) | 33:11,23,23;35:14,20; | 101:2 |
| 67:14;70:6 | 43:21;80:10;103:3 | 69:21 | 41:1,21;43:6;56:17; | consider (9) |
| CHAIRMAN (102) | citation (2) | comments (12) | 59:3;61:8,20;94:16; | 18:15,19,23;23:3; |
| 5:2,8,12,14,16,19,23; | 82:16,17 | 38:14,17;50:11, | 106:2,17,22;107:19; | 35:8;37:13;83:23; |
| 6:7;7:13,16;9:12;10:20; | cite (1) | 51:1,3;62:19;107:6; | 112:13;126:8 | 102:22;124:15 |
| 11:2;13:2,4;15:5,18; | 15:6 | 109:17,24;125:12,13 | concerned (5) | considered (4) |
| 21:16;24:24;25:4;30:3, | civil (2) | commercial (1) | 40:21;42:2;72: | 15:22;55:11;79:4; |
| 10,16;31:3;32:19,21; | 47:12;87:1 | 79:12 | 93:20;105:11 | 99:14 |
| 33:5;34:5,11;38:23; | claimed (2) | Commission (4) | concerning (1) | considering (1) |

SEC 2010-01 DAY 3 MORNING SESSION - November 3, 2010
GROTON WIND, LLC

| 37:15 | conversion (1) | 24;126:6,21 | 99:17 | Department (2) |
| :---: | :---: | :---: | :---: | :---: |
| constraint (1) | 106:8 | court (6) | cuts (3) | 61:21;115:24 |
| 105:9 | converts (2) | 9:5,6;11:5;47:3,19; | 91:17,23,24 | depends (1) |
| constraints (1) | 106:10,15 | 5:12 |  | 105:5 |
| 109:7 | cooperating (1) | cover (4) | D | DES (36) |
| construct (1) | 9:20 | 22:3;33:2;44:24 |  | 50:11,16;52:4,5; |
| 88:6 | copies (4) | 127:18 | daily (2) | 55:11,15,17;62:1,6; |
| constructed (2) | 49:12;51:12;82:23,24 | coyotes (2) | 39:13;45:8 | 67:21;69:8;70:5,7;71:9, |
| 28:13;62:17 | copy (3) | 45:10,1 | damage (1) | 11,14;74:21,24;75:2; |
| construction (18) | 21:8,12,18 | Craig (3) | 98:20 | 79:3;82:10;87:13;88:22; |
| 61:8,10,14;80:23; | corner (2) | 49:18;50:15;51: | damaged (1) | 89:4,8;99:4;107:16; |
| 81:5;86:19;87:3,3,8,8, | 92:23;93:4 | Craig's (2) | 17:14 | 108:1;111:7;115:16; |
| 16;89:20;90:5,16,18; | corporate (13) | 50:18;51: | data (22) | 116:5,8,15;118:16,21; |
| 92:14;100:7;117:19 | 26:10,21;27:13,14; | create (1) | 11:1;12:16;14:3; | 125:17 |
| construction-phase (1) | 28:4,8,9;29:1,2,5,24; | 123:21 | 18:24;19:4,8,9;20:4,11, | describe (3) |
| 62:5 | 32:5,7 | created (1) | 14,16,21;21:1;26:24; | 56:5;67:13;75:24 |
| consult (2) | corporate-wide (1) | 8:9 | 28:6,6;29:3;31:23; | described (1) |
| 38:9;116:8 | 27:9 | creating (3) | 36:12;40:4,14;57:2 | 113:20 |
| consultant (3) | Corps (7) | 60:3;78:19;100: | date (1) | design (9) |
| 10:13;87:22;108:3 | 68:11,22;69:11,21 | creation (1) | 9:10 | 69:9;74:4,8;75:11; |
| Consulting (2) | 70:5,9,19 | 69:17 | dated (9) | 80:15,16;81:2;87:1; |
| 11:15;111:5 | corpses (2) | creatures | 31:4;49:9,12,13,2 | 96:14 |
| contained (9) | 39:14;44:17 | 41:1,23 | 51:3;52:22;53:13;70:19 | designate (1) |
| 12:13,20;15:13;49:22; | corrected (2) | criteria (1) | dates (1) | 44:7 |
| 50:10;82:22;106:4; | 63:24;64:3 | 121:18 | 81:18 | designated (2) |
| 111:24;113:22 | correction (1) | cross (3) | day (6) | 77:19;127:18 |
| contains (1) | 44:23 | 86:18;91:5;117 | 53:3;58:9;60:23 | designed (3) |
| 54:17 | corrections (4) | cross-examination (21) | 120:15;127:15,17 | 74:12;79:19;116:14 |
| contaminated (5) | 12:12;48:24;49:5,6 | 13:3,7;39:1;44:11; | days (8) | designers (1) |
| 73:5;94:17;95:6; | correctly (3) | 45:20;46:1,6,13;57:23; | 34:13,22;36:11;81:13, | 87:10 |
| 97:22;106:11 | 16:11;80:14;114:3 | 58:1,7,18;65:4;66:12,15; | 21;90:14,15;104:8 | DES's (3) |
| contamination (10) | correlate (2) | 82:3;85:17;124:23; | deal (6) | 61:23;76:13;123:5 |
| 60:7,9;61:20;62:14, | 40:4,4 | 125:2;126:15;127:8 | 55:18,22;58:6;103:3, | detail (5) |
| 16;72:20;73:23;76:11; | correlated (2) | cross-examining (1) | 16;125:5 | 10:21;55:2;68:20; |
| 78:17:79:18 | 19:6,16 | 120 | dealing (5) | 108:7,20 |
| context (1) | correlating (1) | crossing (3) | 55:17;58:10;69:18; | detailed (2) |
| $\begin{aligned} & 52: 3 \\ & \text { contiguous (1) } \end{aligned}$ | $\begin{array}{\|c} \text { 19:20 } \\ \text { correlation (1) } \end{array}$ | $\begin{aligned} & \text { 67:22;69:6;117:2 } \\ & \text { crossings (1) } \end{aligned}$ | $\begin{aligned} & \text { 109:14;124:16 } \\ & \text { dealt (1) } \end{aligned}$ | $\begin{aligned} & \text { 38:10;68:10 } \\ & \text { detect (3) } \end{aligned}$ |
| 115:3 | 37:4 | 67:14 | 125:11 | 17:8;18:11;79:5 |
| continually (1) | corridor (3) | cross-section (1) | decision (6) | detected (1) |
| 43:17 | $56: 12 ; 114: 11,14$ | $8: 13$ | 90:5;107:17;116:7,19; | 16:13 |
| continuation (1) | corridors (1) | cross-talk (1) | $124: 4,14$ | detecting (2) |
| 119:19 | 36:2 | 85:13 | decisions (2) | 14:19;17:10 |
| continues (1) | Counsel (4) | crows (1) | 107:16;116:4 | detection (3) |
| 64:8 | 5:21;32:12;49:14 | 45:10 | deeper (1) | 13:18;14:5;15:1 |
| contractor (4) | 126:14 | crush (1) | 94:13 | detections (3) |
| 86:20,22,24;108:21 | Counsel's (1) | 94:8 | defer (5) | 16:2,3,5 |
| contrast (1) | 127:7 | crusher (1) | 58:3;73:14;86:12; | detector (7) |
| 8:10 | count (1) | 94:14 | 107:8;110:18 | 13:20,21;14:15,22; |
| control (10) | 35:4 | crushers (1) | deferred (1) | 16:10,17;17:11 |
| 59:11;61:11;87:16,19; | counting (2) | 88:19 | 103:22 | detectors (7) |
| 88:20,22,23,23;89:17; | 37:1;44:19 | crushing (4) | defining (1) | 14:1,20;16:1,7,18,22; |
| 109:21 | counts (1) | 88:8,13,23;108:19 | 95:20 | 18:14 |
| controlling (1) | 45:4 | culvert (1) | definitely (2) | determination (2) |
| 41:22 | couple (8) | 109:20 | 43:1;117:7 | 34:1;35:15 |
| controls (2) | 81:13;86:19;94:12; | culverts (4) | degrees (1) | determine (4) |
| 61:17;123:10 | 95:9;97:4;104:8;125:8; | 60:18;67:14;68:2; | 65:10 | 10:7;30:8;31:13; |
| controversy (1) | 126:17 | 118:3 | deliberations (2) | 102:19 |
| 64:20 | coupled (1) | currently (2) | 102:18,22 | determined (3) |
| conversation (1) | 19:9 | 68:3;117:21 | delivered (1) | 36:16;98:16,19 |
| 68:11 | course (10) | cut (3) | 100:2 | devastating (1) |
| conversations (1) | 30:23;36:8;37:21; | $65: 23 ; 119: 6,8$ | delivering (2) | $101: 3$ |
| 68:21 | 42:16;63:2;64:7;125:18, | cutouts (1) | 99:13;103:5 | develop (1) |


| 97:9 | 69:2;111:3 | 89:5 | 5;27:20;37:7;45:11 | 107:5 |
| :---: | :---: | :---: | :---: | :---: |
| developed (1) | disequilibrium (1) | drainage (1) | eaten (1) | enters (3) |
| 36:18 | 40:11 | 59:10 | 44:17 | 58:24;59:20;102:6 |
| developing (1) | distance (2) | drains (2) | Ed (1) | entire (3) |
| 74:21 | 78:22;121:19 | 58:21;64:2 | 56:13 | 16:21;35:6;77:12 |
| development (2) | distinguish (1) | dramatic (1) | effect (7) | entrance (2) |
| 36:4;68:16 | 80:10 | 65:17 | 27:17;40:19;41:14; | 78:9;92:21 |
| diameters (1) | distribution (1) | drawings (2) | 61:24;101:9;107:11; | environment (2) |
| 88:14 | 125:6 | 8:13,15 | 126:3 | 41:8;126:5 |
| difference (9) | disturbance (2) | drawn (1) | effected (1) | environmental (9) |
| 14:4,6,7;16:1,6,8 | 41:23;61:13 | 107:21 | 73:6 | 47:15,16;61:22;74:3; |
| 18:16,22;64:16 | disturbances (1) | dredge (1) | effectively (2) | 87:1;105:4,16;115:14,24 |
| different (12) | 60:15 | 111:15 | 123:2;124:1 | EPA (7) |
| 14:13;18:23;23:14; | disturbed | drilling (1) | effects (3) | 68:11,21;69:20;70:5, |
| 24:6,7;83:23;85:2,18; | 115:3 | 98:22 | 41:18;62:10;126:7 | 9,17;72:7 |
| 87:21,24;106:16;110:14 | divide (1) | drink (2) | eight (1) | episodic (1) |
| differentiate (1) | 65:9 | 62:11,12 | 34:13 | 22:22 |
| 14:20 | Division (1) | drinking (4) | either (8) | equilibrium (2) |
| difficult (5) | 126:11 | 73:22;76:23;97:13 | 7:5;48:24;77:18; | 40:22;41:22 |
| 23:7;35:6;40:3;69:13, | Docket (3) | 99:1 | 78:16,19;81:13;91:7; | equipment (5) |
| 17 | 5:4;12:3;47:22 | drive (2) | 93:19 | 99:21;100:7,12;103:5; |
| difficulty (1) | document (10) | 16:13;101:1 | elaborate (1) | $117: 19$ |
| 41:21 | 15:14,17;21:24;53:8; | driving (1) | 23:4 | equivalent (2) |
| diligence (1) | 78:8;85:22;86:15;90:13; | 118:2 | elevation (1) | 71:7,15 |
| 37:21 | 107:15;118:13 | droughts (1) | 20:22 | erosion (9) |
| dimensions (1) | documents (1) | 63:4 | eliminate (1) | 60:20;61:11;73:21; |
| 7:24 | 112:9 | dryer (2) | 119:23 | $74: 17 ; 87: 16,18 ; 88: 20$ |
| direct (19) | dollar (1) | 63:3,3 | elimination (1) | 89:17;109:20 |
| 6:4;11:7;12:3,21; | 72:1 | due (7) | 119:22 | especially (5) |
| 33:21;34:15;46:12,22; | Don (1) | 37:21;40:11,15;72:20; | else (4) | 19:2;37:6;88:7;115:8; |
| 47:7;68:12,23;72:13; | 118:23 | 81:6;114:16;126:12 | 6:4;73:15;77:13;93:19 | 126:13 |
| 104:15;114:15,18,18; | donation (7) | duly (2) | e-mail (2) | essentially (2) |
| 118:21;120:18;127:8 | 69:24;70:11,16;71:7; | 11:4;47:2 | 7:13;51:24 | 15:20;107:22 |
| directed (1) | 83:15,16,19 | during (22) | emergency (5) | establish (1) |
| 105:19 | done (20) | 14:2,15,17;16:19 | 101:4,21,24;103:13,16 | 76:19 |
| directive (2) | 38:21;39:20;40:19; | 17:3,7,8,17;18:11;33:14; | emigration (1) | Established (2) |
| 26:21;35:20 | 57:7;67:16;88:8;90:8, | 34:13;35:4;49:7;51:11; | 40:12 | 33:3;53:2 |
| directly (7) | 10,14;93:5;95:10;96:18; | 61:8;68:1;73:21;74:2; | employed (1) | estimate (1) |
| $29: 8 ; 72: 2 ; 74: 17 ;$ | 99:10;108:23;109:1; | 81:5;87:16;96:13; | 11:12 | 35:3 |
| 76:24;92:17;104:12; | 121:4,12,22;122:1,22 | 121:15 | emulating (1) | estimating (1) |
| 122:20 | DOT (1) | dust (5) | 59:9 | 37:1 |
| director (1) | 75:2 | 88:18,22,23,23;89:1 | encircling (1) | et (2) |
| 47:14 | Doug (2) | dynamite (1) | 17:22 | 67:14;70:6 |
| Directors (1) | 5:11;89:12 | 59:16 | encompass (1) | ether (1) |
| $31: 4$ | down (25) |  | 28:22 | 97:13 |
| disagree (2) | 23:16;26:14;29:14; | E | end (5) | evaluating (1) |
| 30:21;31:20 | 61:1;65:12,22;81:6,16, |  | 7:5;8:22;30:6;102:10; | 31:8 |
| discovered (1) | 20;86:17;92:20;100:5, | Eagle (3) | 104:14 | Evaluation (2) |
| 98:1 | 13,21;101:11,19;105:6, | 37:15,17,19 | enforcement (1) | 5:4;11:22 |
| discovering (1) | 9;106:12;112:23;113:3, | eagles (10) | 80:17 | Evan (1) |
| 98:11 | 19,24;122:17;123:15 | 34:14,18,19;35:1,2,17, | engaged (1) | 5:21 |
| discuss (2) | downhill (1) | 18;36:1,6;43:15 | $74: 21$ | even (4) |
| 102:18;110:23 | 78:1 | earlier (4) | engineer (2) | 37:13;43:2;59:16; |
| discussed (5) | downstream (1) | 37:4;78:7;90:19 | 47:12;50:20 | 109:10 |
| 52:8;54:20;55:15; | 123:10 | 120:14 | engineering (1) | event (5) |
| 70:5;122:12 | dozen (1) | early (2) | 74:4 | 22:22;28:17,20;33:23; |
| discussing (1) | 110:9 | 54:24;100: | Engineers (3) | 35:14 |
| 41:23 | DR (16) | earth (2) | 69:11,21;96:13 | events (6) |
| discussion (8) | $37: 8 ; 38: 23 ; 39: 6,8$ | 92:9;94:11 | England (2) | $16: 23,24 ; 17: 3 ; 23: 3$ |
| 10:2,8;32:20;54:10; | 41:20;44:3,10;58:14,15; | earth-removal (1) | 23:16;122:8 | $28: 23 ; 42: 24$ |
| 68:15;85:14;118:16; | 65:1;66:6;78:7;111:1,2, | 78:3 | enough (2) | eventually (2) |
| 119:4 | $8 ; 116: 24$ | East (8) | 18:9;100:7 | 70:11,19 |
| discussions (2) | draft (1) | 22:15,16;23:13;24:3, | entered (1) | everybody (2) |

SEC 2010-01 DAY 3 MORNING SESSION - November 3, 2010
GROTON WIND, LLC

| 100:20;111:20 | expectations (2) | 126:15 | file (1) | Fletcher (1) |
| :---: | :---: | :---: | :---: | :---: |
| everyone (5) | 123:6,8 | fairly (12) | 114:9 | 59:17 |
| 5:3;42:1;47:20;48:19; | expected (1) | 7:20;9:21;61:11; | filed (4) | flight (1) |
| 124:17 | 101:19 | 78:11;89:16;101:1; | 9:9;57:15;76:4;125:10 | 43:9 |
| evidence (2) | expecting (1) | 103:12;109:5,19,23; | filing (1) | flow (2) |
| 30:11;126:1 | 43:4 | 116:11,12 | 112:4 | 59:10;86:16 |
| exact (3) | expense (1) | falcon (1) | filings (1) | flows (1) |
| 15:4;16:9;81:18 | 122:1 | 42:1 | 49:11 | 94:24 |
| exactly (5) | experience | fall (6) | fill (7) | flushing (1) |
| 59:1;71:2;93:17; | 55:17;74:13;98:8 | 13:21;14:3;26:21; | 84:11,12,18;88:14; | 98:22 |
| 103:9;111:21 | experimental (1) | 34:13;35:5;44:17 | 94:13;111:15;119:6 | fly (4) |
| EXAMINATION (3) | 40:18 | familiar (4) | fills (2) | 36:23;40:8;43:11; |
| 11:7;46:22;47:7 | expert (6) | 30:4;32:24;33:7;36:8 | 92:13;94:13 | 104:19 |
| example (5) | 8:8;73:14;88:4;93:11; | far (10) | filter (2) | flying (3) |
| 22:4;43:14;69:6,16; | 95:8;108:3 | 40:20;56:2;79:13; | 123:10,11 | 16:12;18:9;37:1 |
| 103:12 | expertise (3) | 88:16;91:4,15;92:12; | final (5) | focus (3) |
| examples (1) | 40:8;43:5;84:3 | 96:21;105:22;106:22 | 90:4;107:16,17;116:4, | 61:23;62:1;70:10 |
| 31:22 | experts (4) | farms (1) | 19 | folks (3) |
| excavation (3) | 75:3;79:19;80:1;107:7 | 22:11 | finalized | 58:20;109:19;115:20 |
| 78:11;80:20;91:7 | explain (6) | faster (1) | 87:5 | follow (11) |
| exception (1) | 14:6;15:20;36:13 | 84:23 | finally (2) | 29:7,15,18,22;54:9; |
| 92:21 | 68:10;76:10;108:6 | fatalities (3) | 58:23;70:14 | 61:9;66:17;76:15;87:15; |
| Excuse (6) | explained (1) | 17:17;23:11,24 | financial (7) | 93:10;102:14 |
| 34:5;46:6,11;90:15 | 49:11 | fatality (1) | 8:18,22;9:2,7,10; | followed (2) |
| 101:23;111:18 | explaining | 22:20 | 69:19;70:23 | 27:10;87:24 |
| excused (1) | 57:6 | feature (1) | find (13) | following (9) |
| 124:13 | explanation (6) | 65:17 | 16:9;40:6,7;82:9 | 27:12;28:15;29:4,11, |
| executed (1) | 6:14;7:24;14:12;55:7, | Federal (4) | 84:22,23;85:3;86:22; | 19,24;31:7;32:7;47:1 |
| 108:7 | 21;71:18 | 33:4;35:21;38:9 | 92:11;97:12,22;125:23; | follow-up (5) |
| exhausted (1) | expressed (3) | 115:18 | 126:2 | 116:24;120:6,20; |
| 43:23 | 54:24;63:11;120:14 | fee (3) | finding (4) | 122:12;123:20 |
| Exhibit (61) | extended (1) | 69:24;83:16;84:5 | 19:4;20:19;51:7;97:22 | Follow-ups (1) |
| 6:12;7:23;8:6,12,18 | 81:14 | feeding (1) | finds (1) | 120:22 |
| 9:18;12:10;21:6,9; | extension (1) | 60:8 | 94:20 | footprint (1) |
| 25:13,15;26:18;29:13, | 65:7 | feel (3) | fine (1) | 80:22 |
| 13;31:1;32:11,14;35:13; | extensive (1) | 40:15;72:9;78:6 | 124:7 | foraging (10) |
| 46:17,18,20;48:1,4,12, | 29:23 | feet (13) | finer (1) | 14:21;16:5;17:4,9,19; |
| 15,16;49:19;50:6;53:9, | extent (2) | 76:18;78:4,13;82:11, | 88:15 | 18:2,5,5,6;36:3 |
| 10,22;56:9,24;57:1;58:4, | 66:1;88:1 | 13;84:12,18;90:22; | fire (1) | Forest (1) |
| 6,10;82:20;89:2,10,11; | extra (1) | 91:14;97:7;114:13; | 103:13 | 69:14 |
| 102:20;103:2,7;106:1; | 21:12 | 115:2;119:4 | firm (3) | forested (2) |
| 107:5;108:5,12;110:17, | extrapolation (3) | fellow (2) | 5:9;87:1;122:17 | 24:19;26:6 |
| 18,21;112:2,4,5;113:21, | 36:14,20,24 | 43:24;65:1 | First (11) | foresters (1) |
| 23;116:3,4;120:12; | extremely (6) | fertile (1) | 13:11;18:18;24:17; | 68:1 |
| 124:5,15 | 31:12,21;32:3;37:7,8, | 56:16 | 26:16;27:14;28:6;71:1; | forget (1) |
| exhibits (7) | 10 | few (9) | 113:21;118:11;125:1,9 | 121:1 |
| 9:8;11:1;21:18;24:23; | eyeballing (1) | 29:22;39:9;40:6; | first-year (1) | form (4) |
| 25:19;26:9;56:6 | 78:12 | 42:16;54:1;67:10; | 26:4 | 69:23;71:21;106:10, |
| $\begin{gathered} \text { existence (1) } \\ 16: 24 \end{gathered}$ | F | $104: 23 ; 120: 20 ; 122: 7$ <br> field (6) | $\begin{gathered} \text { fiscal (1) } \\ 8: 23 \end{gathered}$ | $16$ |
| existing (6) |  | $11: 17 ; 33: 10 ; 37: 2$ | Fish (1) | $27: 22$ |
| 59:10;60:12;67:23; | facility (1) | 56:9,20;114:4 | 70:6 | formed (1) |
| 68:3;109:13;117:20 | 8:2 | fields (1) | five (6) | 52:4 |
| Exit (8) | fact (8) | 59:8 | 34:14,18;35:1,17; | forms (3) |
| 74:6,6,7,18;79:20; | 14:11;17:21;43:12; | figure (12) | 96:2;101:14 | 8:17;23:19;83:20 |
| 80:13,21,23 | 55:1;72:12;74:23;76:21; | 28:2;55:22;62:21; | fix (1) | forth (5) |
| expansive (1) | 99:9 | 71:3;75:19;76:3;77:4; | 97:20 | 26:19;45:10;99:12; |
| 112:15 | factor (2) | 82:5,17;102:9;103:15; | flagged (1) | 101:6;117:14 |
| expect (7) | 6:18;44:23 | 112:16 | 56:18 | Forty-six (1) |
| 7:9;17:1,3;21:2;39:17; | factors (4) | figures (2) | flags (1) | 103:1 |
| 42:17;96:22 | 6:8;24:7;28:2;41:6 | 82:22;83:1 | 56:20 | forward (1) |
| expectation (1) | fair (5) | figuring (1) | flat (2) | 26:22 |
| 124:19 | 41:19;55:13;80:4,9; | 103:15 | 99:18;101:8 | found (6) |

SEC 2010-01 DAY 3 MORNING SESSION - November 3, 2010
GROTON WIND, LLC

| 39:12;57:7;84:4; | 19:18;33:6;69:4;72:6; | Gravel (23) | 24;36:1,5 | help (7) |
| :---: | :---: | :---: | :---: | :---: |
| 86:20;97:15;99:1 | 80:4;86:8,20,22,24; | 6:4;11:3,4,6,11,12; | Hampshire (11) | 11:17;20:1;23:23; |
| foundations (1) | 96:20;110:19 | 12:2,7;15:3,7,11,24; | 11:22;39:21;50:16; | 73:2;74:13;84:23; |
| 121:24 | generalities (1) | 37:9;39:3,8;45:20;46:6, | 57:1;61:21;63:1,10; | 123:11 |
| four (3) | 72:3 | 11;60:4;122:16;124:23; | 67:21;69:8;73:19;76:13 | helpful (1) |
| 42:7,8;54:2 | generally (4) | 125:2;127:4 | hand-delivering (1) | 7:7 |
| frame (1) | 18:22;19:16;78:15; | G-R-A-V-E-L (1) | 21:18 | here's (2) |
| 7:2 | 114:24 | 11:11 | handed (4) | 22:9;65:12 |
| frames (2) | generous (1) | gravels (1) | 32:13;49:17;50:4; | Heritage (2) |
| 26:19;101:18 | 71:16 | 92:13 | 52:21 | 57:2;111:6 |
| frankly (1) | gets (2) | Gravel's (1) | handle (3) | high (6) |
| 71:2 | 101:8;124:17 | 41:21 | 105:19,21;107:9 | 14:15;18:9;60:23; |
| freak (2) | GETZ (79) | Great (2) | handled (1) | 66:2;79:17,21 |
| 22:23;42:24 | 5:2,12,16,19,23;7:16; | 25:24;83:6 | 110:14 | higher (5) |
| free (1) | 9:12;10:20;11:2;13:4; | greater (4) | handles (1) | 14:2;20:19;24:17; |
| 30:6 | 15:5,18;24:24;30:3,10, | 78:13;79:13;80:24; | 108:10 | 26:4;28:2 |
| Friday (5) | 16;32:19,21;34:11; | 108:6 | handling (1) | highway (1) |
| 49:7;51:23;54:24; | 38:23;39:5;44:6;45:15, | green (2) | 76:16 | 74:5 |
| 56:11;57:10 | 18,22;46:3,10,21;51:6, | 69:15;117:22 | Hang (1) | Hill (3) |
| front (2) | 13;52:2;53:7,12,15;54:4, | Groton (51) | 101:23 | 43:15;66:2;86:17 |
| 49:18;90:7 | 8,11;55:5,20;57:24; | 5:5,10;9:3,7;13:19; | Hangen (3) | hiring (1) |
| full (4) | 58:14;65:3;66:8,13; | 24:14,20;26:1,6;31:8; | 47:13,15,17 | 87:21 |
| 24:15;26:1;82:16,17 | 75:24;76:8;80:3;82:1, | 50:10;56:10;58:22; | Hansen (2) | historic (3) |
| fully (1) | 15;83:4;85:11,15,19; | 60:16;65:7,20;66:1,3,22; | 50:1,19 | 126:4,10,11 |
| 95:3 | 97:1;102:17;103:2,19; | 67:3,4,6;70:15;75:8,10; | happen (6) | historical (1) |
| functioning (1) | 104:5,21;107:14; | 77:21;78:18;79:14;83:9, | 16:23;18:1;42:24; | 115:21 |
| 61:17 | 108:13;110:15,24; | 12;85:4;88:7;90:23; | 74:14;81:5;104:15 | history (1) |
| fund (5) | 111:9;112:24;113:6; | 91:16,19,21;92:18;93:4; | happened (1) | 42:19 |
| 69:24;70:1,11,17; | 116:23;119:1;120:3,8, | 99:11,24;102:7;103:4; | 23:3 | hit (3) |
| 83:24 | 11,22;121:2,6;123:1; | 105:7,9,13;113:3,19,23, | happens (5) | 91:9,10,12 |
| funding (2) | 124:2,9,22;127:13 | 24;114:1;125:6 | 14:17;17:22;29:14; | HMANA (2) |
| 41:3;71:21 | Gittell (1) | Groton/Rumney (1) | 97:14;103:15 | 31:4,15 |
| further (12) | 7:19 | 83:13 | hard (2) | HMANA's (1) |
| 10:8,10,13;28:21,22; | given (11) | ground (6) | 36:22;104:1 | 31:23 |
| 68:10;91:12;109:1; | 12:19;15:22;31:15; | 39:12,14,22;44:17,24; | harm (1) | hold (3) |
| 116:21;120:18;122:21, | 34:19;35:1;71:10;79:16; | 57:11 | 41:2 | 102:24;120:11;124:3 |
| 22 | 88:2;121:10;122:19; | Groundwater (4) | Harrington (12) | hole (2) |
| future (5) | 125:18 | 76:3,19;97:6,10 | 6:5,6,23;97:2,3,5; | 106:12,13 |
| 21:17;64:19;74:14; | gives (2) | group (4) | 102:13;103:8;107:20; | Hollow (32) |
| 90:9,10 | 19:23;20:8 | 44:7;46:1;66:7;125:11 | 120:4,5,9 | 58:22;60:16;65:8,20; |
| G | goes (10) | groups (1) | Harrington's (1) | 66:1,3,22;67:6;75:9,10; |
| G | 12;77:21;107:18; <br> 2.23.119.20.123.2. | guardra | haul | 7.90.24.91:16:92.18. |
| gain (1) | 125:9,12,13,21 | 65:13 | 99:21 | 93:4;99:11,24;102:7; |
| 107:10 | Goland (3) | guess (33) | hauled (1) | 103:4;105:7,9,13;113:3, |
| gaps (1) | 9:17;53:13;57:6 | 17:22;25:24;26:11 | 123:17 | 20,24,24;114:1;125:6 |
| 38:13 | golden (5) | 29:18,21;34:21;36:21, | hear (5) | home (1) |
| gates (1) | 34:18;35:2,18;37:15, | 23;45:22;53:6;55:5,10; | 47:20;58:9;110:16; | 102:1 |
| 102:7 | 17 | 66:17;67:17;68:8;75:16; | 120:13;125:2 | homeowner (1) |
| gauge (1) | Good (22) | 76:15;77:7;80:7;86:4; | heard (1) | 122:3 |
| 21:2 | 5:2,7,12,13,16,17,19, | 89:13;94:4;95:14; | 107:6 | homeowners (1) |
| gave (1) | 20,23;11:9;13:9,10; | 102:19;108:3,4,6,16; | hearing (8) | 122:2 |
| 33:1 | 19:1;23:10;28:19;47:9; | 115:22;118:4,15; | 5:3;21:5;23:24;30:1; | homes (5) |
| gears (3) | 66:17;90:2;97:24;102:2; | 119:10;120:6 | 46:15;75:19;125:13; | 82:12;90:23;91:13; |
| 21:4;24:9;30:17 | 108:16,17 | guidance (1) | 127:13 | 121:13,18 |
| GEIGER (26) | government (1) | 125:5 | height (4) | honest (2) |
| 5:7,8;7:4,22;8:3;9:16, | 35:21 | Guidelines (3) | 18:6,7,10,12 | 80:15,19 |
| 23;10:14,23;11:8;13:2; | GPS (1) | 33:3,5;56:19 | heights (1) | honestly (3) |
| 15:10;21:7,12;25:9,12, | 56:21 |  | 8:14 | 72:5;80:2;81:16 |
| 17;34:5;41:16;76:6; | grab (1) | H | held (1) | hope (1) |
| 86:6;111:18;112:7,20; | 87:11 |  | 21:5 | 25:2 |
| 113:5,11 | Granite (2) | habitat (7) | Hello (1) | hopefully (3) |
| general (11) | 9:7;12:1 | 20:22;34:2;35:16,23, | 44:13 | 24:11;35:12;125:4 |


| hoping (2) | 44:18 | include (3) | initially (1) | interval (1) |
| :---: | :---: | :---: | :---: | :---: |
| 7:4;92:7 | impact (28) | 68:23;88:22;97:18 | 109:13 | 45:7 |
| hour (2) | 8:11;27:5,8;65:6; | included (2) | injured (1) | intervenor (6) |
| 42:22;102:11 | 71:10,10,13;72:2,13,16; | 12:9;62:2 | 43:2 | 5:14,18;43:24;44:7; |
| hours (4) | 74:3;78:15;79:6;85:23; | includes (1) | in-lieu (1) | 58:17;65:2 |
| 42:4;101:15;109:10, | 86:2,10,11;96:6,18; | 53:15 | 69:24 | into (27) |
| 11 | 105:4,17;115:12; | including (3) | input (2) | 10:21;11:19;34:7; |
| house (1) | 117:14;119:9,12,15,23, | 68:12;73:23;126:4 | 31:16;105:20 | 43:11;47:18;58:21;59:5; |
| 103:13 | 24 | incorporate (2) | inquire (2) | 60:8,8;65:23;66:2; |
| houses (3) | impacted (1) | 69:8;102:3 | 55:9;80:4 | 67:17;69:9;77:10,21; |
| 83:10,11;121:11 | 73:12 | increase (1) | inspection (1) | 91:12;93:4;100:8; |
| humans (2) | impacts (22) | 15:22 | 90:5 | 101:21;102:3;106:10, |
| 41:15,18 | 24:5;27:8,15,18; | increased (4) | installation (3) | 12;107:5;117:13;120:6; |
| hundred (2) | 68:13,23;71:24;75:6; | 14:18;16:7,18;78:16 | 117:16,19;119:17 | 122:24;123:15 |
| 20:5;43:20 | 78:23;95:15,17,19; | incredulous (1) | installed (2) | introduction (2) |
| hundred-foot (1) | 105:15;109:7;114:15,16, | 59:15 | 68:4;80:18 | 52:21;78:17 |
| 56:12 | 18,20;115:21;116:12,15; | incurring (1) | instance (3) | inventories (1) |
| hundred-foot-wide (1) | 117:11 | 116:14 | 112:19;119:18;125:10 | 96:19 |
| 114:11 | imperative (1) | indeed (1) | instances (1) | invert (1) |
| hydraulic (1) | 61:9 | 51:22 | 18:12 | 68:5 |
| 59:9 | impervious (3) | independent (4) | insufficient (1) | investigation (2) |
| I | $\begin{array}{r} 59: 24 ; 60: 5 ; 78: 20 \\ \text { imperviousness }(1) \end{array}$ | $\begin{aligned} & 58: 5 ; 79: 13 ; 115: 1 \\ & 118: 22 \end{aligned}$ | $31: 11$ | $56: 10,18$ |
|  | 78:17 | index (5) | 77:5 | 44:15 |
| I-93 (2) | implement (2) | 14:8;19:1;20:8,12,19 | intended (1) | involve (2) |
| 74:1;80:13 | 26:15;97:9 | indicate (4) | 58:8 | 105:13,14 |
| IACOPINO (36) | implementation (2) | 13:18;23:1;26:20; | intends (1) | involved (9) |
| 6:11;7:1,12,17,23;8:6; | 26:18;80:16 | 33:11 | 108:1 | 24:7;48:9;73:19,24; |
| 9:14,18,24;10:14,17,24; | implemented (1) | indicated (3) | intention (1) | 74:4,11,17;87:17;93:9 |
| 15:12;21:22;22:5;51:8, | 107:23 | 22:13;54:22;70:20 | 25:3 | involvement (1) |
| 18;52:10;53:9,14,19,21, | implicated (2) | indirect (6) | intentionally (1) | 80:8 |
| 23;54:7;82:20;103:1; | 113:7;125:20 | 68:13,23;72:15; | 37:19 | involving (1) |
| 111:10,11,22;112:17,21; | implicates (1) | 105:14,15;114:16 | interaction (2) | 88:24 |
| 113:17;114:2;119:1,2; | 126:9 | individual (2) | 42:17;126:10 | IRI (1) |
| 125:15 | implications (1) | 14:21;84:12 | interconnect (8) | 9:7 |
| Iberdrola (17) | 59:4 | individuals (1) | 8:2;12:15;52:18; | isolate (3) |
| $8: 20 ; 9: 3,19 ; 26: 11$ | important (6) | $37: 14$ | 56:14;57:3,12;110:13; | 41:5,9,13 |
| $27: 6,9 ; 28: 1 ; 29: 1,4,17$ | 29:7,21;35:7,22; | industrial (1) | $123: 14$ | issue (12) |
| 24;86:21,22;87:3,21; | 96:16;118:15 | 31:9 | interconnection (6) | 58:5;69:10,22;71:22; |
| 89:24;98:5 | imposed (2) | industry (1) | 53:3;54:18;55:2; | 74:6;80:8;102:16; |
| ID (2) | 79:4;89:18 | 80:5 | 105:3;112:22;113:9 | 107:19;108:2;120:13; |
| 86:3;113:21 | improve (2) | inexperienced (1) | interconnections (1) | 124:16;125:18 |
| idea (5) | 67:17;68:6 | 43:3 | 111:4 | issued (3) |
| 9:15;19:23;21:2; | improved (1) | inferred (3) | interest (2) | 62:1;84:6;89:23 |
| 72:14;108:23 | 60:18 | 34:1;35:16,23 | 36:15,21 | issues (18) |
| identification (9) | improvement (1) | inflated (1) | interested (1) | 55:7,17;73:20,21; |
| 46:19;53:10,24;55:6; | 73:18 | 16:6 | 108:19 | 74:18;77:15;104:10; |
| 56:8;110:21;112:6; | improvements (2) | influence (2) | interesting (1) | 113:6,7,9;120:16; |
| 114:5,8 | 64:12;65:19 | 24:8;41:9 | 53:1 | 121:14;124:5;126:1,9, |
| identified (3) | inadequate (2) | influencing (1) | interim (1) | 15,19,20 |
| 61:15;77:4;112:18 | 31:8,13 | 41:6 | 56:19 | items (1) |
| identify (4) | inaudible (1) | information (32) | intermittent (1) | 126:3 |
| 38:13;76:18;90:21; | 40:20 | 7:18;8:4,10;10:1,5,9, | 118:4 | iterative (1) |
| 98:9 | Inc (1) | 15;12:13;22:19;37:23; | internal (2) | 54:22 |
| ignorant (1) | 9:3 | 49:9;50:15;51:4;52:8, | 69:12;109:1 | it's- (1) |
| 97:11 | incident (1) | 11;53:4;54:21;55:4,11, | INTERROGATORIES (9) | 40:2 |
| II (5) | 43:3 | 21;56:13;69:19;70:12; | 97:5;105:1;108:15; |  |
| 76:7;82:19,21;86:6,7 | incidents (1) | 75:22;102:23;104:9,12; | 111:2,11;117:1;119:2; | J |
| imagine (2) | 41:10 | 111:6;112:10;125:16, | 120:5;121:9 |  |
| 7:20;9:21 | incline (3) | 19;126:13 | interrupt (1) | Jim (1) |
| immediate (2) | 65:10,14;66:19 | initial (5) | 104:3 | 5:14 |
| 98:17;119:8 | inclined (1) | 71:1,5;72:8;84:15; | Interstate (2) | jointly (2) |
| immediately (1) | 58:3 | 113:15 | 73:18;74:1 | 48:10,16 |


| July (13) | 93:3 | 74:13 | 101:17 | magnitude (1) |
| :---: | :---: | :---: | :---: | :---: |
| 49:9,12,13,18,24; | largest (4) | letter (16) | LLC (5) | 18:22 |
| 50:18;51:3,11,14,22; | 84:11,12,18;119:9 | 31:2,7,16;49:12,13,18, | 5:5,10;9:4,8;50:10 | main (4) |
| 70:12,13;110:8 | last (7) | 21,23,24;50:19,20,24; | located (6) | 61:23;78:20;94:22; |
| juncture (2) | 11:10;12:1;49:7 | 51:3,22;53:13;70:19 | 56:20;76:18;77:1,5, | 119:20 |
| 45:23;125:14 | 62:23;66:18;79:16; | level (4) | 19;78:21 | Maine (2) |
| June (5) | 121:1 | 28:13;68:7;93:2; | locating (1) | 39:20;43:15 |
| 14:16;49:23;50:14,24; | late (1) | 102:18 | 56:22 | maintain (1) |
| 70:2 | 52:24 | leverage (1) | location (6) | 61:2 |
| jurisdictional (2) | later (2) | 72:11 | 82:14;85:20,23;86:18; | maintenance (2) |
| 117:10,11 | 30:13;58:9 | LEWIS (18) | 106:14;112:19 | 60:1;90:6 |
| justification (1) | latitude (1) | 5:17,18;66:11,13,14, | locations (3) | major (2) |
| 71:18 | 30:4 | 16;73:10;76:9;81:23; | 8:1;110:3,6 | 73:22;92:13 |
| juvenile (1) | law (1) | 92:16;120:19,20,24; | loci (1) | majority (5) |
| 43:2 | 5:9 | 121:3,8,9;123:19,24 | 40:13 | 16:3,5;17:17;76:21; |
|  | laying (1) | Lewis's (1) | loggers (1) | 77:9 |
| K | 39:22 | 80:12 | 68:1 | makes (3) |
|  | layperson (1) | liaison (1) | logging (5) | 23:7;28:16;40:3 |
| keep (5) | 19:22 | 68:16 | 60:14;64:11;67:16,24; | making (2) |
| 89:1;94:22;104:6; | lead (1) | lie (1) | 117:21 | 30:5;93:9 |
| 117:17;123:8 | 50:20 | 76:22 | long (7) | manage (2) |
| Kent (5) | learned (1) | lieu (1) | 17:6;45:9;60:11;61:4, | 11:17;123:9 |
| 111:1,2,8;116:24; | 74:13 | 83:20 | 6;81:6;108:4 | management (13) |
| 117:1 | least (8) | life (3) | longer (1) | 61:10;74:22,23;76:15; |
| kept (1) | 16:16;55:21;56:7; | 27:16;42:19;63:14 | 45:1 | 81:3;87:15;88:21;93:8, |
| 96:16 | 63:14;95:23;102:23; | likely (9) | look (16) | 22;94:19;107:18;108:7; |
| key (2) | 105:3,15 | 33:12,18;34:1;35:16, | 13:23;18:17;62:6; | 123:5 |
| 35:22,24 | leaving (1) | 18;40:2;83:8;104:19; | 72:8;80:20,21;82:12; | manager (2) |
| killed (1) | 123:12 | 115:11 | 89:2;90:4;99:14;100:3; | 11:14;47:12 |
| 22:12 | lecture (1) | limit (1) | 101:20;116:16;117:5; | many (14) |
| kind (8) | 62:24 | 61:12 | 121:23,23 | 11:17;14:19,22;16:2; |
| 22:21,23;36:22;65:13; | leftover (1) | limited (3) | looked (3) | 36:22;37:1;39:11,13,22; |
| 104:1;109:11;119:10; | 106:3 | 59:23;61:13;92:12 | 100:1;112:11;114:14 | 40:7;43:12;45:4;68:2; |
| 122:9 | legal (1) | line (13) | looking (19) | 103:9 |
| knowledge (1) | 63:22 | 8:14;22:6;83:13; | 6:16;10:22;14:9; | map (4) |
| 123:4 | Lempster (3) | 84:16;91:6,21;111:12, | 20:12;21:8;23:22;30:20; | 54:18;76:2,4;112:2 |
| known (7) | 24:16;26:3;39:21 | 23;112:22;121:5,11; | 31:22;78:23;79:5;83:8; | maps (1) |
| 37:23;57:4,8;69:23, | lengthy (2) | 123:22;125:7 | 84:14;100:19;103:17; | 100:20 |
| 24;72:15;73:11 | 25:20;81:17 | linear (1) | 105:6,10;118:14; | mark (1) |
| Kristen (2) | Leo (98) | 117:7 | 119:11;125:20 | 55:6 |
| 53:12;57:6 | 46:24;47:4,11,11,22; | line-of-sight (1) | looks (2) | marked (10) |
| kV (3) | 48:3,6;49:2,3;50:20; | 8:15 | 34:17;125:16 | 12:9;46:17,18,20; |
| 8:1,2;113:7 | 57:9,11,17;59:9,21; | lines (7) | $\boldsymbol{\operatorname { l o t }}$ (7) | 48:1,4;51:13;56:7; |
|  | 60:11;61:6;62:17,20; | 36:3;114:13,15;117:3; | 20:19;24:11;30:5; | 110:21;113:20 |
| L | 64:9;65:16,19,24;67:2; | 122:14,18,19 | 77:14;96:18;99:7; | Mars (1) |
|  | 76:13;77:1,4,16,24;78:2, | link (1) | 114:13 | 43:15 |
| laboratory (1) | 9;82:12;83:8,11;84:22; | 107:15 | low (9) | material (9) |
| 41:3 | 85:6,8;86:13,16,21,23; | list (4) | 18:13;22:17;23:18; | 51:14;52:3;88:13,24; |
| lack (1) | 87:1,5,10,18;88:2,9,20; | 9:13;104:6,11;126:3 | 37:7,9,11,24;38:1;65:6 | 92:3;94:15,18;106:18; |
| 22:18 | 89:13,24;90:7,10,12,14, | listed (3) | lower (6) | 107:12 |
| Lake (2) | 20;91:3,18,20,22,24; | 57:2,7;73:17 | 18:7,12;27:24;42:18; | materials (5) |
| 36:9,10 | 92:6,19;93:11,16,21,23; | listen (1) | 59:8;94:10 | 88:10;92:7;105:23,24; |
| land (3) | 94:4,9,20;95:4,8;97:17; | 29:1 | low-intensity (2) | 111:24 |
| 59:22;71:7;96:12 | 98:4,14;99:3,23;100:16, | literally (1) | 60:21;61:2 | matter (6) |
| landowner's (1) | 24;101:16,24;102:9; | 13:23 | low-intensity-use (1) | 31:19;42:10,13;74:23; |
| 115:9 | 108:21;109:1,9,17; | little (13) | 64:10 | 80:4;81:21 |
| landscape (2) | 110:3;115:8;119:3,8,10, | 21:4;23:5;28:10;61:8; | lunch (4) | may (30) |
| 65:18;96:21 | 20,24;121:16;122:3,7, | 67:18;68:10,20;74:10; | 124:11,15;127:11,16 | 7:11;10:8;44:4,24; |
| large (7) | 16;123:7,23 | 78:6,10;99:10;108:20; |  | 58:3;69:16;74:11;80:1; |
| 82:24;88:14;99:13 | less (9) | 122:12 | M | 88:16;91:9,9,13;92:9,11; |
| $\begin{aligned} & \text { 100:12;102:6;103:11; } \\ & 119: 14 \end{aligned}$ | $\begin{aligned} & 18: 1,4 ; 39: 23 ; 59: 22 \\ & \text { 60:20;63:4;96:9,10,21 } \end{aligned}$ | $\begin{array}{\|r\|} \hline \text { live (1) } \\ 62: 15 \end{array}$ | achinery (1) | $\begin{aligned} & 93: 9,11 ; 95: 1,5 ; 102: 22 ; \\ & 103: 24 ; 104: 7 ; 105: 13 \end{aligned}$ |
| larger (1) | lessons (1) | living (1) | 99:13 | 106:8;108:2;110:1; |

SEC 2010-01 DAY 3 MORNING SESSION - November 3, 2010 GROTON WIND, LLC

| $113: 8 ; 114: 23 ; 118: 1$ | methods (1) | mitigated (1) | $92: 2 ; 96: 14 ; 110: 2,4$ | nearby (4) <br> $24 \cdot 16 \cdot 26 \cdot 3 \cdot 43 \cdot 16$. |
| :---: | :---: | :---: | :---: | :---: |
| Maybe (20) | MICHAEL (4) | mitigation (21) | mostly (2) | 121:11 |
| 19:24;28:24;29:8; | 47:4,11;50:1,19 | 67:12;68:12,16,17,22, | 88:24;90:23 | necessarily (4) |
| 50:7;54:7;55:16,18; | Michelle (1) | 24;69:5,10,12,23;70:1,8, | motion (3) | 17:16;20:2;40:16; |
| 63:16;65:9;92:10;97:10; | 5:22 | 15,18,21;71:9,13;72:7; | 6:19;9:9;125:10 | 107:7 |
| 101:14;104:5;105:18; | microphone (4) | 83:21;84:3;98:12 | Mountain (1) | necessary (4) |
| 107:4;108:1;110:9; | 11:19;44:4,9;47:18 | modification (2) | 59:17 | 29:23;86:10;123:21, |
| 114:23;124:6;126:18 | middle (2) | 63:11,18 | move (5) | 23 |
| MAZUR (28) | 18:13;22:8 | modifications (1) | 32:11;85:1,17;106:13; | need (24) |
| 37:8;38:23;39:2,6,7,8; | mid-October (1) | 64:6 | 117:12 | 6:2,5;7:11;10:8,21; |
| 41:20,24;44:2,3,4,10,12; | 32:3 | moment (1) | moving (3) | 24:22;27:16;55:24; |
| 58:14,15,19;63:8,21,24; | might (23) | 95:10 | 17:6,18;46:22 | 59:16;63:20;66:1;81:4; |
| 64:5,23;65:1,2,5;66:5,6, | 15:15,15;16:13;21:2; | moments (1) | much (16) | 90:17;92:8,11;93:1; |
| 22;78:7 | 29:1;32:10;40:10,12; | 54:1 | 15:1;18:7;19:7;23:14; | 94:10;99:3;100:9; |
| mean (34) | 42:6;43:10,10;47:18; | Monday (2) | 39:3,8;42:13,18;79:7; | 101:24;114:20;115:16; |
| 15:2;19:21;20:2; | 59:5,19;65:10;81:15; | 6:7;51:23 | 80:24,24;86:16;91:11; | 122:22;124:8 |
| 23:13;38:6;42:15,20,24; | 103:4;104:2,16;105:23; | money (2) | 98:12;106:17;118:9 | needed (3) |
| 43:8;53:6;63:24;65:17; | 112:3,16;115:16 | 7:19;83:23 | muck (17) | 55:1;86:17;100:1 |
| 72:4;77:1;81:9;83:16; | migrating (5) | monitor (7) | 93:22,24;94:3,5,17,19, | needs (5) |
| 84:1;88:16;92:3,20; | 17:7,21;18:2,5,8 | 27:16;40:19;45:8; | 20,23;95:1;106:11; | 44:3;69:11;81:1,2; |
| 93:11;94:5,18,20;95:1; | migration (12) | 76:20;87:18,19;98:10 | 107:18;108:7;122:12,13, | 122:5 |
| 97:8,11,14,20;99:3; | 14:17;17:5,7,17; | monitored (2) | 23;123:5,8 | negotiate (1) |
| 101:10;103:8;115:8; | 30:22,23;31:14,21;32:2; | 58:20;93:18 | MULHOLLAND (23) | 72:9 |
| 122:16 | 33:14;35:5;36:17 | monitoring (21) | 5:20,21;32:17;45:19, | negotiation (3) |
| meanders (1) | Mike (7) | 24:15,21;26:2,8;27:7, | 21;46:8;52:19;54:15; | 72:5,7,11 |
| 58:23 | 50:20;62:5;84:22; | 18,21;28:2,14,18,21; | 82:1,2,4;83:5,6,7;85:18; | Neither (1) |
| meaning (1) | 86:12,13;114:23;115:7 | 40:13;61:16;62:6,9; | 89:12;95:13;105:22; | 105:15 |
| 95:22 | Mike's (1) | 80:16;87:17,22;97:15; | 113:12;121:2,3;124:19, | nervous (2) |
| means (2) | 61:19 | 98:10;109:21 | 21 | 40:13,16 |
| 13:24;99:1 | mile (1) | monitors (1) | Mulholland's (1) | nest (2) |
| meant (1) | 102:9 | 61:15 | 54:13 | 38:2,18 |
| 61:6 | miles (2) | month (2) | multiple (3) | nesting (1) |
| measure (2) | 42:22;102:10 | 10:18;14: | 16:13;17:10,14 | 43:15 |
| 91:10;126:23 | mind (5) | months (3) | must (4) | new (24) |
| measures (2) | 62:20;65:15;72:4; | 63:5;81:9,9 | 30:22;73:9;125:23; | 8:15;11:21;21:17; |
| 79:6;126:12 | 112:13,15 | more (44) | 126:2 | 23:16;39:20;50:16;57:1; |
| mechanisms (1) | minimal (4) | 7:11;9:14;10:9;17:8; |  | 61:21;63:1,10;67:21,22; |
| $96: 4$ medical (2) | 78:10;79:2;105:7,9 | 20:10;22:13,24;23:5; | N | 69:7;73:19;74:23;76:13; |
| medical (2) | minimize | ;28:10,12;29:23 |  | 97:21;98:22;105:12; |
| 101:4;103:13 | 5:6;79 | 9:19,23;40:15;45:11; | 1) | 16:15;122:8,14,1 |
| meeting (2) | minimizing (1) | 50:15;53:20;55:2,4,16, | 119:13 | 123:22 |
| 70:4,6 | 76:11 | 17;60:17;61:8;63:4; | N5 (1) | newer (1) |
| meetings (1) | minor (11) | 68:20;69:17;71:20,24; | 119:13 | 126:13 |
| 69:2 | 78:12;91:7;109:19,23; | 72:3,17;73:16;77:11; | N6 (7) | Newfound (2) |
| Members (2) | 110:1,4,6;116:12,13,16; | 81:20;85:16;91:11; | 86:18;116:22;119:6, | 36:9,10 |
| 5:8,24 | 119:24 | 105:19;106:2;108:20; | 12,14,22;120:1 | news (3) |
| memo (2) | minute (1) | 112:15;118:15;122:12; | name (7) | 97:23,24;98:1 |
| 56:17;57:5 | 15:3 | 123:20;125:5 | 9:19;11:9,10;47:9,11, | Next (11) |
| memorandum (2) | minutes (3) | morning (20) | 14;121:1 | 8:6;9:17;18:18;25:15, |
| 70:13,14 | 102:11,12;103:10 | 5:2,7,12,13,16,17,19, | name's (1) | 20;63:1,15,18;64:7; |
| mentioned (6) | misinterpretation (1) | 20,23;6:1;11:9;13:9,10; | 11:11 | 93:14;105:18 |
| 49:21;65:6;66:19; | 73:9 | 39:14,23;47:9;58:8; | NANCY (5) | night (4) |
| 90:20;92:2,16 | miss (1) | 66:17;112:9;126:20 | 47:5,16;48:11;76:2 | 13:20,21;16:10;44:18 |
| met (5) | 44:24 | mortality (25) | 105:8 | nights (4) |
| 8:19;18:14;70:2; | missing (1) | 19:6,11,17,20,24;20:3, | natural (4) | 14:14;16:7,18,22 |
| 71:11;108:8 | 98:3 | 11,19;21:1,3;22:17; | 41:8;57:2;111:5;126:5 | nine (1) |
| meters (1) | misspoke (1) | 23:15,18,19;24:8,17; | nature (1) | 5:24 |
| 65:14 | 119:10 | 26:4;27:19,24;37:6,6,24; | 43:7 | nitrate (2) |
| method (2) | mistaken (2) | 40:5;44:15;45:2 | Neal (1) | 97:13,13 |
| 56:21;98:12 | 15:15;32:14 | most (13) | 31:3 | nitrates (10) |
| methodologies (1) | mitigate (1) | 15:7;28:14;40:2,2; | near (4) | 94:18;95:2,6,8;97:24; |
| 38:14 | 96:3 | 60:14;62:1;77:11;88:9; | 36:3;83:11;90:23;93:5 | 105:23;106:3,3,11; |


| $12$ | 24 | 20,5,10,23 | 3:1 | panel (9) |
| :---: | :---: | :---: | :---: | :---: |
| nitrogen (2) | 29:17:34:14,18;35:2; | 1:4;102:5,10,23; | out (46) | 46:12,22;58:12;59:3 $75: 17: 103: 22 \cdot 107: 6$ |
| 106:21,22 | 42:3,14 | 退:15,21;106:9;115:5; | 14:23;16:8;18:16; | 75:17;103:22;107:6 |
| noise (2) | observing (1) | 120:24;123:20 | 22:2,11;28:2,22;31:2; | 108:18;124:13 |
| 41:7,10 | 35:6 | ones (2 | 1,15;35:20;38:8; | paper (2) |
| no | obtained (3) | 98:8 | ,50:4;53:11,24; | 24:12;82:24 |
| 33:19;45:17 |  |  |  | 29:14, |
| non-toxic (1) | (1) | (1731 | 迷 | 27:2;29:14,16 |
| :10 | 9:10 |  | :10;7 | paralle |
| normally | obvious | 0:14;64:10 | 82:9;93:2;94:23;97:12, | 58:21 |
| 96:22 | 65:17 | online (1) | ;98:15,22;100:9,23; | paraphrase (2) |
| north (4) | obviously (2) | 57:2 | 1:15;102:1;103:15, | 106:17;110:1 |
| 78:22;86:9;119:16,21 | 89:4;109:12 | only (14) | ;106:15;114:4; | pardon (1) |
| Northeast (3) | occasionally (2) | 12:14;28:1 | 117:17;121:18;123:8,11 | 30:15 |
| 23:17 | 33:24.35.15 | ;59:24; | outflow (1) | parking |
| northwe |  | :24;73:5;103:18; | 59:4 | 60:2 |
| 92:23 |  | 7:4:117:14:119 |  |  |
| note (2) |  | 122:7 | 68:5 | 22:2 |
| 5:24;35 | 7:17;28:20,23; | on-site (2) | tset (1) | 5,16 |
| noted (1) | 100:19;121:15 | 27:21;94: | 27:12 | 66:24;67:2;68:14;72:11; |
| 13:24 | occur' (1) | onto (3) | outside (2) | 75:8,21;76:13;77:21; |
| notes (1) | 34:1 | 91:6;100:9;102 | 77:19;117: | 78:20;87:6;88:20,21; |
| 109:22 | occurred (9) | open (2) | outstanding (1) | 9:11,17,22;90:1;95:4; |
| notice (1) | 16:2,3;18:13;35:8, | 5:3;92 | 11:1 | 7:17;110:4;112:10; |
| 104:11 | 73:21;74:7,18;80:2 | open-water (1) | over (19) | 121: |
| noticed | occurring (3) | 36:2 | 16:19; | 125:15 |
| 73:17 | 78:4;79:12 | operation | 59:7;63:1, | participate (1) |
| not | oc | 6:1,15;10 | ,18;64:7,21;66:23; | 57:10 |
| 101:16 | 28:18;29:19 | operational | :15;94:13;117:24; | particu |
| November (2) 52.22 .53 .13 | 75:4;106:9 | 19:3;20:11,14;22:16; | 121:4,11;122:20;124:15 | $18: 12 ; 26: 20 ; 35: 2$ $44 \cdot 9 \cdot 58: 46 \cdot 59: 17$ |
| 52:22;53:13 | October (8) | 24:18;26:5 | overall (2) | 4:9;58:4,6;59:17 |
| number (17) | 13:12,15;24:11;25:6; | operations (2) | 13:18;59:2 | 67:20;72:8 |
| 15:4;16:9;42:6;50:2 $53 \cdot 20 \cdot 60 \cdot 23 \cdot 6 ; 27$ | $\xrightarrow{\text { 31:4;33:4;56:11;116:5 }}$ | 68:2;108:19 | overlooks | particularly (1) |
| :22;60:23;62:2,7; | odds (1) | opinion (7) | 77:23 | $43: 7$ parties (10) |
| :13;77:4;83:14;86: | 103:1 | 1:18;33:10,13;79:1 | overseen (1) | parties (16) 6:20;8:19:30:4;32:15; |
| 93:21;99:9;101:5; | off (17) | 105:2,16;106:20 | 81:4 | 6:20;8:19;30:4;32:15; $51: 23 ; 52: 9,10 ; 55: 9 ;$ |
| 103:11;113:15 | 21:8;32:1 | Opportunities (2) | oversight (1) | 51:23;52:9,10;55:9; |
| 14:10;16:14;21:23; | :5;85:11,14;92:4,21; | $\begin{gathered} \text { 17:14;42:17 } \\ \text { opportunity (5) } \end{gathered}$ | own | $\begin{aligned} & 58: 3 ; 104: 10,12,1 \\ & 126: 14,18,22,24 \end{aligned}$ |
| 22:2;56:8;83:2 | 9:19;109:4;120:12; | 30:12;55:8;124:1 | 12;79:1;118:1 | partners (1) |
| NWR8 (1) | 123:18 | 5:4;126:19 | 121:18 | 75:2 |
| 86:3 | off-flow | site (1) | oxygen (1) | parts (3) |
| 0 |  |  |  | 12, |
|  |  |  | P | $33: 13 ; 118$ |
| 0ath (1) | off-ine | option (2) |  | passed (3) |
| 12:22 | off | 87:21;124: |  | 20:10;53:11, passes (1) |
| object (6) | offset | order (4) | 49:22;61:12;67:1 | passes |
| $6: 21 ; 34: ?$ | $6: 15$ often | $: 1 ; 34: 23 ; 88: 6 ; 125: 23$ | :12,17,22;69:1,5,11; | 102:7 |
| objection (2) | $17: 1 ;$ | :22 | cket | 31:23;104:7;119:12 |
| 52:23;70:18 | once (6) | orientation (1) | 49:17;50:3,8;51:10 | Patch (27) |
| obligation (1) | 11:23;2 | 53:5 | pads (1) | 5:11;47:8 |
| 126:6 | 61:6;87:5;110:2 | original (8) | 92:14 | 49:16,20;51:6,9,16,18; |
| obligations | one (48) | 47:24;48:9,15,24; | Page (29) | 52:1,6,12,13;53:18 |
| 118:18 (1) | 8:6;10:9;14:14,15, | 58:2;68:24;1 | 13:11,13,14,15;21:6,8, | 54:121 |
| observation (1) | 24;16:17;18:14,17 | originall | 1,20,21,23,23;22:2,3,6, | 7:22;63:6,20;79:2 |
| 42:5 | 22:11,15;23:14;24:1 | 69:7 | ;24:10;25:1;26:16,17, | 9:9;103:20;104 |
| rvat | 23;26:1;27:22;28:15,18, | Orr (1) | :19;33:22;35:13 | 124:7 |
| 35:8,9 | 22;31:10;32:6,12,16; | 5:9 | 67:12;68:9;83:2,3 | path (1) |
| observe (2) | 34:16;37:13;42:11 | ought (1) | 84:16;113:1 | 43:9 |
| 28:20;42:10 | 52:16;55:8;58:16;61:24; | 23:3 | id (1) | patterns (3) |
| observed (9) | 63:21;73:16;77:6;82:15; | ourselves (1) | 7:19 | 31:13;32:1;60:6 |


| Pause (1) | 74:12 | 126:16 | 21;22:19;27:3;31:11; | 90:15,15,17;121:13 |
| :---: | :---: | :---: | :---: | :---: |
| 95:12 | perspective (1) | pointed (2) | 37:5;40:4;43:16 | private (6) |
| payment (2) | 63:23 | 73:10;79:9 | predators (2) | 66:21,24;67:3;82:7; |
| 83:15,20 | Pete (1) | poles (5) | 44:18;45: | 16;102:8 |
| PC (2) | 68:15 | 114:15;117:12,12,17; | predict (5) | probabilistic (1) |
| 32:14;35:13 | PETER (2) | 118:6 | 23:7;36:22;39:19 | 36:13 |
| peak (1) | 47:6,14 | policy (13) | 64:18;104:2 | probability (1) |
| 32:2 | phone (1) | 26:10,13;27:13,14 | prediction (1) | 14:18 |
| pending | 101:22 | 28:4,9;29:2,5,11,15 | 23:11 | robably (11) |
| 124:13 | photographs (4) | 30:1;32:6,7 | preferred (1) | 8:5;9:17;46:8;61:24; |
| people (12) | 53:17,20;54:3,5 | pollutants (1) | 69:22 | 101:1;102:1,11;103:12; |
| 28:24;61:15;77:14; | physiological (1) | 106:23 | prefiled (26) | 109:4;116:16;118:1 |
| 84:3;89:4;93:12,15,16; | 40:11 | polluted (1) | 12:3,8,13,21,21;24:10, | problem (10) |
| 99:8;101:16;103:14; | pick (3) | 77:15 | 12;25:5;47:21;48:2,5,10, | $41: 5,7,12 ; 53: 6 ; 97: 20$ |
| 121:21 | 42:21;94:12;125:1 | pools (1) | 11,15;49:1,1,6;54:19; | 98:10,11,13;99:1;106:16 |
| per (3) | piece (1) | 56:16 | 58:1,2;67:11;68:9; | problems (1) |
| 13:20,21;16:10 | 97:18 | portion (14) | 75:23;84:15;112:1; | 10:9 |
| perceive (1) | pieces (4) | 63:21;66:22;67:3; | 120:18 | procedure (3) |
| $59: 4$ | 53:16;58:5;99:13 | 75:10;91:16,18,19,21; | prehearing (4) | $44: 14,19 ; 104: 6$ |
| percent (7) | 100:12 | 92:18;99:11,24;113:21; | 49:8,10;52:7;125:11 | procedures (1) |
| 14:1;16:19,20;43:21 | pile (10) | 115:17;117:22 | preliminary (1) | 76:16 |
| 96:9,11,20 | 93:22,24;94:6,17,19, | portions (3) | $22: 13$ | proceed (7) |
| peregrine (2) | 21;107:18;108:7;123:5, | 74:5,8;100:16 | premarked (2) | 65:3;121:6;124:12,18; |
| $42: 1,12$ | 8 | posed (1) | 49:19;50:5 | 126:21,23;127:1 |
| peregrines (1) | piles (2) | 31:9 | premises (1) | proceeding (1) |
| 43:6 | 94:23;9 | position (3) | 45:5 | 55:1 |
| peregrine-use (1) | pipes (1) | 31:17;34:20;59:1 | prepare | proceedings (1) |
| 37:20 | 92:11 | positive (1) | 55:9 | 95:12 |
| perennial | place (8) | 107: | prepared (5) | process (7) |
| 117:24 | 72:21;75:5;76:10 | possibility (2) | 9:2;50:9;106:8; | 30:5;54:23;87:5 |
| performed (1) | 84:13;94:12;98:9,15; | 73:13;122:15 | 126:17;127:1 | 94:14;96:14;118:5; |
| 56:10 | 114:14 | possible (9) | preponderance (1) | $126: 12$ |
| performing (1) | placement (3) | 8:1;41:2;50:23;62:13; | 126:1 | processing (1) |
| 121:20 | 88:24;90:15;117:12 | 72:20;94:1;114:19; | present (8) | 88:12 |
| perhaps (4) | plan (25) | 117:14;118:9 | 6:1;33:11,15,18; | produce (1) |
| 16:12;29:2;59:6;92:5 | 26:12;27:10,20;28:16; | possibly (2) | 35:18;58:17;70:4; | 14:22 |
| period (14) | 29:18,19;38:15;49:8; | 79:7;118:7 | 116:17 | products (1) |
| 14:16,17,18,24;16:1,4, | 78:12;88:21;89:17;90:6; | post-construction (21) | presented (1) | 106:18 |
| 20;17:4,7,9,18;35:3; | 97:7,10;99:17;102:3,15; | 19:4,6,11,17,20;20:11, | 75:19 | professional (1) |
| 81:14,17 | 103:14,16;109:12,15,19, | 16,18,24;22:20;24:15, | presents (1) | 31:18 |
| periodically (1) | 22;121:17;123:5 | 21;26:2,7;27:7,18,22; | 53:6 | Professor (1) |
| 17:22 | plans (16) | 37:5;43:13,17;44:22 | preservation (4) | 7:19 |
| permission (1) | 29:22;38:10,12;61:22; | potential (12) | 69:15,17;71:8,15 | profile (1) |
| 66:11 | 76:10;84:22;87:2,4,7,11; | 27:4;38:1;42:4;64:3; | preserve (1) | 6:17 |
| permit (31) | 100:18;109:24;110:7,9; | 75:6;78:23;98:10,11; | 71:12 | program (8) |
| $50: 12,17 ; 51: 2 ; 62: 3$ | 119:11;122:22 | 101:6;104:10;106:23; | presiding (1) | $76: 20 ; 89: 15,17 ; 97: 10,$ |
| $69: 1,20 ; 75: 1,21 ; 76: 5$ | planted (1) | $107: 11$ | $6: 21$ | $17 ; 98: 9,14 ; 99: 4$ |
| 79:4;82:10,22;83:17; | 45:6 | potentially (2) | presumably (2) | project (65) |
| 87:13,14;89:3,5,7,8; | please (7) | 17:10;122:16 | 13:19;58:20 | 8:17;11:14;12:1 |
| 93:7;107:15;111:15,16; | 5:6;11:9;21:7;25:13; | practices (8) | presumption (1) | 13:20;20:21;24:17;26:3, |
| 114:20,22;115:5,12,14; | 28:7;36:13;65:3 | 61:10;74:22,24;76:15; | 29:18 | 20;27:5,7,16;28:12; |
| 116:1,2,9 | plenty (2) | 81:4;87:15;93:8,10 | pretrial (1) | 31:24;33:15;35:10;36:5, |
| permits (3) | 92:8,8 | pre- (1) | 42:2 | 7;37:19;38:6;47:12; |
| 109:14;115:16,18 | Plymouth (2) | 49:5 | pretty (4) | 56:23;59:13,23;60:11; |
| permitted (2) | 21:5;62:23 | pre-blast (1) | 70:9;86:16;99:15; | 61:7;62:21;63:13,22; |
| 6:21;127:5 | pm (1) | 122:10 | 110:6 | 64:10,14;69:9;72:22; |
| permitting (2) | 127:16 | precautions (2) | previous (3) | 73:20,24;74:2,3,9;75:9, |
| 87:2,12 | point (18) | 75:5;80:5 | 14:2;51:22;116:24 | 12;77:18,20,22;78:22; |
| person (1) | 10:22;35:22;44:8; | precisely (1) | previously (3) | 79:13;81:1,6;89:19,20; |
| 93:17 | 46:4;49:14;54:16,21; | 31:17 | 90:20;116:3;119:3 | 90:2,3;95:17,22;96:10, |
| personal (1) | 55:6;80:19;85:24;96:2; | pre-construction (20) | primarily (1) | 11,12,17;98:16,20; |
| 116:10 | 97:21;100:22;104:2; | 18:24;19:5,8,10,13,15, | 74:2 | $111: 14 ; 112: 11 ; 114: 8$ |
| personally (1) | 118:16;123:3;124:8; | 19,23;20:4,7,12,14,18, | prior (4) | 115:1,17,23;126:2 |


| projects (19) | 34: |  | :8; | 88:19 |
| :---: | :---: | :---: | :---: | :---: |
| 19:2,3,12;20:6,10,13, | providing (2) | R | 98:11;105:6;118:2 | re-emphasize (1) |
| 15,15;22:16;23:16,16, | 19:1;51:1 |  | reason (9) | 125:8 |
| 18;24:19;26:5;27:20; | proving (1) | rain (1) | $18: 4,23 ; 27: 15 ; 43: 8$ | refer (6) |
| 28:14;29:22;31:9;100:3 | 125:24 | $63.5$ | 70:22;93:2;94:19;107:4; | 14:11;24:23;25:14; |
| project's (1) | provision (2) | raise (1) | 112: | $72: 12 ; 84: 13 ; 118: 11$ |
| 64:18 | $101: 13,21$ | 105:20 | reasonable (4) | reference (1) |
| proof (1) | provisions (4) | raised (6) | 37:15;42:23;80:6; | 72:13 |
| 125:22 | 62:8,8;99:17;101:9 | $10: 7 ; 52: 7 ; 105: 22$ | $96: 18$ | referenced (1) |
| propagation (1) | proximity (2) $40.9 \cdot 108.24$ | $107: 19 ; 120: 23,24$ | reasonably (1) | 74:24 |
| 40:20 | 40:9;108:24 PSNH | raises (1) | $94: 1$ | referred (4) |
| $\begin{aligned} & \text { propagations (1) } \\ & 41: 14 \end{aligned}$ | $\begin{aligned} & \text { PSNH (2) } \\ & 8: 2 ; 113: 10 \end{aligned}$ | $55: 7$ Randal | $\begin{array}{r} \text { reassurance (3) } \\ 63: 11,18 ; 64: 7 \end{array}$ | $\begin{aligned} & \text { 52:17;62:5;76:3;83:14 } \\ & \text { referring (7) } \end{aligned}$ |
| proper (1) | PSU (1) | R1:3 | recall (7) | 21:23;22:6;25:19; |
| 99:21 | 62:23 | random (4) | 72:18,23,24;73:7; | 67:2;74:7;77:6,16 |
| $\underset{68.4}{\text { properly (1) }}$ | Public (13) | 22:21;23: | 81:6;104:14; receive (1) | $\begin{aligned} & \text { reflected (1) } \\ & 112 \cdot 16 \end{aligned}$ |
|  | 5:21;21:5;31:16; | 96:22 | receive (1) $55: 21$ | $112: 16$ |
| 59:1,7;60:14;65:7 | $92: 18 ; 99: 11,24 ; 126: 5,$ | randomly $40: 10$ | received (5) | regard (4) $30: 1 ; 61: 20 ; 116: 1,13$ |
| 91:6;102:8;112:11 | 14;127:7 | random | 38:14,16;50:15,24; | regarded (1) |
| 115:9;117:23 | publicly (4) | 23: | 116:5 | 116:11 |
| proportionate (1) | 8:21;37:23;39:17 | range (7) | receives (2) | regarding (14) |
| 15:23 | 75:22 | 18:10;20:23;24:18; | $61: 24 ; 64: 1$ | 7:18,24;36:11;41:14; |
| proposal (11) | purpose (2) | $26: 5 ; 27: 19,24 ; 39: 17$ | receiving (1) | 42:1;49:8;50:16;63:12; |
| 52:18;68:6;69:18; | 56:11,15 | ranges (2) | 71:21 | 105:21;108:18;110:12 |
| 70:21;71:1,5,11,14;72:8; | purposes (1) | 14:9,10 | recent (1) | 111:4;119:4;121:3 |
| propose (3) | push (1) | raptor (3) | recently (5) | $40: 5$ |
| 38:11;57:24;102:21 | 59:6 | raptors (3) | $22: 12 ; 31: 15 ; 32: 13$ | regulated (1) |
| proposed (29) | put (11) | 36:22;37:6; | 67:21;68:7 | 76:16 |
| $12: 15 ; 18: 10 ; 20: 6$ |  | rare (3) | recess (5) | regulating (1) |
| 28:13;31:7;33:12;35:19; | 89:16;98:9,15;101:9; | $33: 24 ; 35: 14 ; 101: 2$ | $46: 12,14 ; 124: 11$ | $109: 14$ |
| 38:13;53:5;56:14;57:3, | 106:10,14;117:13; | rate (4) | $127: 11,14$ | regulations (3) |
| 5,12;58:22;61:18;71:11; | 122:17 | 14:1;15:1;19:24;44:15 | recessed (1) | 69:12,16;93:18 |
| 87:14;89:3,22;90:22; | puts (3) | rates (12) | 127:16 | regulatory (1) |
| 91:1,2;103:3;105:2; | 28:13,21;84:5 | 13:18;14:5;19:12; | recollection (3) | 109:13 |
| $\begin{aligned} & 114: 7 ; 115: 23 ; 122: 15, \\ & 20 ; 123: 22 \end{aligned}$ | putting (4) $10: 12 ; 19: 7$ | 20:20;24:18;26:5;27:19, | $70: 3 ; 73: 4 ; 75: 16$ | $\begin{gathered} \text { reiterate (1) } \\ 64: 9 \end{gathered}$ |
| proposing (4) | $\begin{aligned} & 10: 12 ; 1 \\ & 118: 5 \end{aligned}$ | $\begin{aligned} & \text { 24;28:3;45:2;59:12;60:6 } \\ & \text { ather (2) } \end{aligned}$ | $83: 22 ; 84: 7 ; 89: 6,21$ | relate (2) |
| $\begin{aligned} & 59: 23 ; 65: 20 ; 67: 19 ; \\ & 99 \cdot 23 \end{aligned}$ | Q | 104:19;124:3 | $\begin{gathered} \text { recommendation (4) } \\ 62: 1,2,7 ; 74: 24 \end{gathered}$ | $\begin{aligned} & 19: 2 ; 62: 3 \\ & \text { related (2) } \end{aligned}$ |
| protect (1) | Q | rati | recommendations | 72:2;76:24 |
| 121:20 | qualifying (2) | ravens (1) | 114: | relates (2) |
| protection (6) | 61:4;62:19 | ravens (1) | recommended (2) | 13:11;55:14 |
| 26:12;27:10;37:16,17; | quality (5) | ravine (2) | 76:13;89:15 | relation (2) |
| 68:5;87:10 | 61:21,23;63:12;76:19; | 65:24;66:2 | reconsider (1) | $19: 12 ; 20: 13$ |
| protections (1) | 126:5 | reach (3) | 31:18 | relative (2) |
| 89:18 | quantify (2) | $113: 4 ; 115: 4 ; 126: 22$ | record (19) | 23:18;35:20 |
| protocol (2) | 20:3;39:1 | read (4) | $5: 24 ; 7: 8 ; 11: 10 ; 32: 18$ | relatively (1) |
| 36:14,19 | quantities (1) | 26:14;33:2;34:7;42:2 | $20,22 ; 34: 7 ; 46: 22 ; 47: 10$ | $85: 3$ |
| protocols (1) | 92:12 | reading (3) | 54:9,10,12;85:12,12,14, | Reliable (1) |
| 31:8 | quarters (2) | $25: 1,1 ; 90: 12$ | 16;102:24;124:23;126:8 | 12:1 |
| prove (1) | 8:23;9:4 | ready (1) | recorded (1) | reluctant (1) |
| 126:6 provide (19) | quick (1) | 25:11 | $16: 21$ | 78:7 |
| $\begin{aligned} & \text { provide (19) } \\ & 6: 13,17 ; 7: 10 ; 8: 5,9 \end{aligned}$ | $\begin{gathered} 32: 6 \\ \text { quickly } \end{gathered}$ | real | $\begin{gathered} \text { records (2) } \\ 57: 4,8 \end{gathered}$ | $\begin{aligned} & \text { rely (2) } \\ & 77: 2,14 \end{aligned}$ |
| $9: 2 ; 10: 5 ; 14: 12 ; 21: 7$ | $9: 22 ; 66: 17 ; 85: 3$ | realisti | redirect (4) | remainder (1) |
| 44:23;55:4;56:4;69:18; | Quincy (2) | 9:10 | 43:10;124:3,6;125:4 | 127:2 |
| 70:16;71:6,6,14,17;88:3 | 62:15;113:14 | really (24) | re-drawn (1) | $\underset{87.5}{\operatorname{remaining}(1)}$ |
| $\begin{aligned} & \text { provided (8) } \\ & 54: 21 ; 56: 13 ; 70: 11,1 \end{aligned}$ | $\begin{aligned} & \text { quite (9) } \\ & 67: 23 ; 71: 2,15 ; 72: 6 \end{aligned}$ | 19:1,23;22:23;23:9 | 8:13 <br> reduce | 87:5 |
| 111:23;112:1,9;114:4 | 78:21;79:2;89:19;101:3; | $\begin{aligned} & 21,23 ; 27 \\ & 53: 2 ; 58: \end{aligned}$ | $76: 11$ | $98: 6,21$ |
| provides (2) | 121:22 | $20 ; 74: 16 ; 78: 18 ; 83: 15$ |  |  |


| $56: 1 ; 60: 14 ; 81: 16$ | $7: 8 ; 11: 1$ | 22:20,20;24:17;26:4; | $76: 11 ; 79: 1,7,13,17,22$ | $5: 15,18 ; 26: 24 ; 67: 6,8$ |
| :---: | :---: | :---: | :---: | :---: |
| $\begin{gathered} \text { remind } \\ 73: 2 \end{gathered}$ | require (8) <br> 10:10,13;24:11;69:16; | 37:5,22;56:9,18;107:23 resume (4) | $\begin{aligned} & \text { sks (1) } \\ & 31: 14 \end{aligned}$ | 76:22;77:6;79:10;91:18; $92: 18 ; 121: 5$ |
| remo | 91:24;111:14;115:12,23 | 73:17;124:24;127:14, | river (16) | Rumney/Groton (1) |
| 88:11,12;91:14;92:1 | required (8) | 17 | 36:2,7;58:24;59:2,5,6, | 91:5 |
| remove (4) | 8:15;38:18;113:10; | resumed (1) | 7,14,20;60:9;62:15;64:1, | run (2) |
| 93:24;94:5,7,11 | 114:9;115:6,19;120:1; | 46:15 | 2;77:9,18;113:14 | 108:21;122:20 |
| removed (2) | 122:5 | returned (1) | Road (65) | runoff (5) |
| 70:17;88:10 | requirements (4) | 93:5 | 58:22,23;60:16,17 | 59:11;60:6,10;64:13, |
| removing (1) | 59:11;61:12,15;87:15 | reuse (3) | 62:15;65:6,8,9,11,20,20; | 17 |
| 106:11 | research (1) | 94:3,7;105:2 | 66:1,3,19;67:3,6;75:10; | runs (4) |
| Rendall (52) | 41:4 | reused (5) | 77:22;78:10;83:9,12; | 58:21;75:7;77:8,8 |
| 46:24;47:5,16,16; | reserve (2) | 106:4,19;107:12; | 85:4;88:7,15;90:24; |  |
| 48:11,14,18;52:14,16, | 102:20;108:5 | 122:13,23 | 91:7,16;92:13,18,20,21; | S |
| 22;56:2,9;57:1,18,20; | reserved (11) | reusing (1) | 93:4,99:11,15,15,20,20, |  |
| 67:10,20;68:14;72:18, | 6:12;7:18,24;8:7,13, | 95:5 | 24;100:4,5,6,13,14,17, | safe (1) |
| 23;73:1,8;75:19;82:8,11, | 18;9:19,24;11:1;103:7; | revetments | 19;101:17,19;102:1,7; | 98:24 |
| 19;84:11,13, 17,19,21; | 108:12 | 65:22 | 103:4;105:7,10,13; | safety (1) |
| 85:10,20,23;86:1,7,9,12; | residences (3) | review (5) | 113:3,14,20,24;114:1; | 126:5 |
| 95:15,19,24;96:5,9; | 77:10,11;108:24 | 61:23;89:5;99:4 | 117:20,23;118:4,9; | Salem (1) |
| 106:5,7,21;107:1;114:6, | resident (5) | 115:24;125:17 | 119:19,20;125:6 | 79:20 |
| 10;117:3,20;118:11 | 14:16,17;16:4;17:4,9 | reviewed (2) | roadbed (1) | same (16) |
| Renewables (1) | residential (1) | 61:22;89:24 | 94:15 | 8:12;12:2,19,23; |
| 9:3 | 90:23 | reviewing (1) | roads (10) | 14:19;17:10,11,13; |
| Rennie (3) | residents (6) | 79:3 | 60:3,21;61:1;67:24; | 56:21;57:13,15;90:11; |
| 49:18;50:16;51:1 | 33:15,17;76:22 | reviews (7) | 68:3;88:6,23;109:4; | 99:6;110:3,5;113:1 |
| Reno (1) | 105:11;109:2,5 | 15:14,17;78:8;85:22; | 110:3;122:17 | sample (4) |
| 5:9 | residue (4) | 86:15;90:13;118:13 | roaming (1) | 34:13,20,23;36:17 |
| Renovables (1) | 105:21;106:3,18 | revisit (1) | 44:18 | sampling (6) |
| 8:20 | 107:11 | 15:18 | rock (18) | 36:11,13,19;76:20; |
| repeat (6) | resolved (1) | ridge (6) | 88:8,11,12,14,19;91:9, | 97:7,10 |
| 25:13,24;28:7;41:20; | 106:16 | 36:3;85:5;86:9;109:3; | 10,12,14,24;94:3,9,11, | Sand (2) |
| 68:18;91:20 | resource (9) | 119:16,21 | 23;95:5;108:19;123:15, | 92:5,10 |
| rephrase (1) | 69:3;70:1,4;71:4;84:2; | ridgeline (1) | 17 | Sarah (3) |
| 28:9 | 105:6;111:7,17;115:14 | 43:18 | role (1) | 44:1,4;65:2 |
| replied (2) | resources (3) | ridgelines (2) | 74:1 | satisfied (2) |
| 50:17;51:2 | 31:10;76:4;126:11 | 24:19;26:6 | room (2) | 70:17,21 |
| report (6) | respect (7) | ridges (1) | 60:2;114:13 | saw (1) |
| 14:12,22;15:4,6; | 7:8;26:11;29:5;103:4; | 59:16 | Roth (5) | 43:16 |
| 32:24;114:11 | 113:9;123:9;125:22 | right (61) | 45:19;46:5,7;124:20; | saying (13) |
| reported (1) | respective (1) | 5:3;11:2;13:15;16:15; | 125:3 | 23:2,6,7,22;29:12; |
| 22:12 | 57:14 | 24:12,13;25:20;36:10; | round (1) | 42:23;43:5,20;47:20; |
| Reporter (4) | respond (3) | 37:2;46:3;50:3;52:12; | 102:9 | 54:4;95:6;97:23;117:16 |
| 11:5;47:3,19;85:12 | 54:23;80:9,11 | 54:11;58:24;60:13,18; | route (30) | scale (2) |
| reporting (1) | response (5) | 64:11;65:19;66:23;77:8, | 12:15;52:18;54:18; | 80:20,21 |
| 97:18 | 30:19;54:12;79:16; | 20;78:2,9;80:3;81:22; | 55:2;56:15;57:4,11; | scavenged (1) |
| reports (2) | 98:18;127:12 | 82:5,7,10;83:9,11,16,17, | 92:22;100:9;110:13,19, | 45:10 |
| 8:22;39:16 | responses (1) | 24;84:8;85:20;86:4,5, | 20;111:13,20,22;112:10, | scavenger-removal (1) |
| represent (1) | 50:11 | 14;87:19;89:8,23;91:15; | 12,14,14,23;113:2,4,13, | 44:21 |
| 5:9 | responsibilities (1) | 92:6,19,21;93:1;95:7,9, | 14,16,19,24;116:7; | scavengers (2) |
| represented (1) | 11:16 | 18,23;98:5,14;99:8; | 120:7;125:6 | 44:19;45:1 |
| 75:17 | responsible (2) | 106:8;108:13;112:17, | routes (1) | schedule (3) |
| represents (1) | 50:21;79:3 | 23;118:8;119:20; | 105:3 | 6:24;26:19;127:8 |
| 105:16 | responsive (1) | 121:11,17 | routine (2) | scientist (1) |
| reputable (2) | 104:13 | right-of-way (1) | 122:4,7 | 47:17 |
| 121:17,21 | rest (1) | 93:1 | RSA (1) | SCOTT (6) |
| request (6) | 56:22 | ringing (1) | 125:21 | 53:21;108:14,15; |
| 7:18;10:10;26:24; | result (7) | 101:22 | rule (2) | 110:11,22;120:15 |
| 29:3;50:15;123:2 | 27:5;57:1,5;74:21; | riparian (1) | 6:22;127:1 | search (1) |
| requested (4) | 78:16;95:17;107:21 | 117:8 | rules (5) | 38:18 |
| 38:5;52:11;70:22; | resulted (1) | risk (15) | 67:22;69:13;71:9,11, | search-efficiency (1) |
| 76:17 | 109:19 | 18:1,4;31:9;37:13,22; | 14 | $44: 21$ |
| requests (2) | results (9) | 38:1;42:18;60:7;63:4; | Rumney (11) | searchers (1) |


| 44:23 | seven-day (1) | 38:11;39:13;42:4;43:22; | 40:10;61:5;65:24; | stable (1) |
| :---: | :---: | :---: | :---: | :---: |
| searches (1) | 45:7 | 45:7;57:10;59:10;60:6, | 68:6,15;78:12;83:19; | 60:17 |
| 38:2 | several (6) | 8,10,13,17;61:16,17; | 91:3;97:8;104:3;125:17 | stack (1) |
| season (8) | 22:16;30:24;31:22; | 62:10,17;64:3,11,12,13, | sought (1) | 21:14 |
| 10:7,15;16:9,21;17:5; | 37:21;39:16;55:7 | 17;70:2;76:17,19;78:9, | 75:2 | staff (1) |
| 30:23;35:7;36:17 | shall (1) | 22;86:8;88:10,10;91:12; | sound (6) | 27:21 |
| Seasons (1) | 27:13 | 92:3,4,7,8,12,15;98:17; | 10:4,11;40:11,20; | staging (1) |
| 31:11 | sheet (3) | 100:8,9;102:4;105:24; | 41:14,17 | 109:3 |
| second (10) | 22:3;86:1;119:6 | 106:19;107:13;109:1,5; | sounds (9) | stamp (1) |
| 24:20;26:7,17;27:2; | sheets (3) | 112:11;123:12,17,18 | 23:9,11,12;28:24; | 87:7 |
| 28:1;29:13,16;32:18; | 8:10;82:24;110:9 | sites (10) | 29:2,6;81:15;110:1,1 | Stamped (1) |
| 82:15;122:11 | shift (3) | 14:10;19:9;20:22,23; | source (2) | 87:2 |
| section (3) | 10:18;70:10,14 | 21:1;31:24;44:22; | 62:14;92:3 | stand (2) |
| 97:6;98:24;117:22 | shifts (1) | 115:21;126:4,10 | south (1) | 63:24;64:3 |
| sediment (1) | 101:7 | situation (4) | 100:20 | standard (1) |
| 61:14 | short (2) | 74:14;79:20,22;81:7 | Southern (1) | 111:15 |
| seeing (2) | 61:5,7 | situations (1) | 73:18 | standpoint (1) |
| 100:1;102:14 | short-term (1) | 103:17 | Spain (1) | 59:9 |
| seek (4) | 61:5 | six (2) | 8:21 | Stantec (2) |
| 41:3;115:14,16; | show (6) | 96:2;101:14 | speak (8) | 11:15,16 |
| 116:19 | 19:16;22:17;24:17 | size (5) | 11:19;44:3;47:18; | stapled (1) |
| seeking (1) | 26:4;27:4;82:6 | 7:24;60:19;80:22; | 75:8;88:17;98:4;103:23; | 54:5 |
| 6:18 | showed (2) | 96:17;101:14 | 115:20 | start (10) |
| seemed (1) | 23:17;43:13 | sketch (2) | speaking (4) | 26:13;46:13;47:23; |
| 70:7 | shown (1) | 53:5;54:16 | 47:19;66:23,24;78:15 | 49:2;82:5;83:8;90:17; |
| seems (4) | 37:21 | skidder (4) | special (1) | 100:10;103:14,15 |
| 30:5;44:14;86:16; | shows (2) | 117:20,23;118:2,9 | 56:17 | starters (1) |
| 103:10 | 49:17;75:20 | skip (1) | specialty (1) | 33:7 |
| select (1) | shut (3) | 95:11 | 92:10 | starting (1) |
| 92:13 | 81:6,16,20 | skyscrapers (1) | species (10) | 6:3 |
| selected (2) | side (7) | 23:20 | 24:6;31:14;33:11,22, | starts (1) |
| 87:18;108:22 | 59:7;65:14;66:3,20 | slightly (1) | 23;35:4,14;37:14;57:3,7 | 109:4 |
| senior (1) | 77:18;91:7;100:20 | 70:15 | specific (7) | state (10) |
| 47:16 | sides (2) | slopes (1) | 37:18;38:17;66:21; | 11:9;24:14;30:21; |
| sense (2) | 77:8;125:19 | 60:4 | 70:22;71:24;73:16;74:5 | 38:9;47:9;62:23;69:24; |
| 47:18;72:6 | sight (1) | small (3) | specifically (6) | 96:19;106:13;115:18 |
| sensory (1) | 8:14 | 60:2;99:15;103:1 | 11:18;39:21;67:15; | stated (1) |
| 40:22 | sighting (2) | snapshot (1) | 72:17;74:22;76:12 | 31:17 |
| sentence (1) | 42:10,12 | 31:13 | speculate (1) | statement (4) |
| 35:23 | sightings (4) | snow (1) | 79:24 | 31:20;34:7;54:13;74:3 |
| separate (8) | 42:3,8,11,13 | 63:4 | speeds (1) | statements (6) |
| 50:24;53:16;111:14; | signed (2) | soaring (1) | 42:21 | 8:19,24;9:3,4,7,11 |
| 114:8;115:8,9,10;127:18 | 50:1,19 | 36:4 | spell (2) | states (1) |
| separately (1) | significant (16) | Society (1) | 11:10;98:15 | 31:7 |
| 120:16 | 14:4;15:22;18:15,20; | 69:15 | spill-control (1) | station (2) |
| September (2) | 28:10,12,17;42:13,15; | somebody (6) | 62:8 | 78:11;110:13 |
| 32:2;70:20 | 72:21;75:10;96:15,16; | 73:15;87:11;93:19; | spinning (1) | statistic (1) |
| sequencing (1) | 105:16;109:15;116:15 | 97:21;101:10,24 | 17:13 | 36:19 |
| 109:21 | similar (11) | somehow (3) | spot (1) | statistical (4) |
| series (1) | 13:20;15:1;20:7,22; | 10:12;17:24;122:23 | 83:8 | 18:20;36:14,20,24 |
| 95:14 | 24:16;26:2;32:1;39:19; | someone (3) | spread (1) | statistically (3) |
| services (3) | 60:12;107:19;120:16 | 71:4;100:6;101:3 | 106:15 | 14:7,13;18:23 |
| 47:15;61:22;116:1 | simple (1) | somewhere (1) | spring (1) | status (3) |
| session (5) | 101:10 | 86:18 | 13:22 | 6:10;111:3;126:8 |
| 72:19;75:17;88:5; | Sinclair (4) | soon (3) | square (5) | stay (1) |
| 127:15,17 | 45:16,17;58:11,13 | 7:21;91:5;94: | 84:12,18;94:2;115:2; | 66:4 |
| set (5) | single (1) | sorry (17) | 119:4 | steep (2) |
| 49:9;81:3;83:5;87:11; | 17:8 | 21:10,15,19;25:7,10; | square-foot (1) | 65:10;66:19 |
| 89:17 | sit (1) | 26:17;32:8;39:6;48:20; | 115:11 | Steltzer (9) |
| sets (2) | 99:20 | 67:3;79:20;86:4;89:12; | stab (1) | 10:3;25:4;104:22,23; |
| 53:16;54:5 | Site (59) | 91:20;101:23;116:4; | 105:5 | 105:1,18;107:3;108:10; |
| seven (2) | 5:3;11:22;17:6;33:12, | 121:1 | stabilized (3) | 123:3 |
| 22:12;31:23 | 24;34:2;35:15,17,19,24; | sort (11) | 60:12;61:7;68:5 | step (1) |


| $\begin{array}{r} 97: 14 \\ \text { steps (1) } \end{array}$ | $\begin{gathered} 50: 9 \\ \text { submitted (21) } \end{gathered}$ | $\begin{aligned} & \text { 96:14;99:8;104:17; } \\ & \text { 105:8,19;106:6;111:20; } \end{aligned}$ | $\begin{gathered} 72: 19 \\ \text { technology (1) } \end{gathered}$ | $\begin{gathered} 68: 1 \\ \text { times (7) } \end{gathered}$ |
| :---: | :---: | :---: | :---: | :---: |
| 107:22 | 9:1;12:2,4;15:8;31:16; | 113:1;117:18;118:23; | 63:17 | 14:19;16:11,13;22:13; |
| step-up (3) | 38:12;47:21,24;48:10, | 122:23;124:17;126:13 | telling ( | 71:12;83:14;99:9 |
| 8:1;110:13;112:19 | 14;49:13;52:4;68:24; | surface (4) | 98:2 | time's (1) |
| still (3) | 69:3,20;70:9;109:13; | 62:9;73:6;94:24;123:9 | tempted | 20:10 |
| 45:24;110:5;120:14 | 110:10;111:6;112:9; | surfaces (1) | 19:21 | tire (2) |
| stockpile (1) | 116:3 | 60:5 | tenth (1) | 99:18;101:8 |
| 106:14 | Subsection (1) | surprised | 96:11 | titled (1) |
| stone (1) | 125:22 | 75:16;81:1 | term (7) | 76:3 |
| 88:15 | Subset (2) | survey (5) | 60:11;61:4,5,6,7 | Tocci (1) |
| stones (1) | 107:18;110:9 | 10:4;37:5;40:7 | 111:21;113:13 | 127:7 |
| 92:14 | substances (1) | 121:18;122:10 | terms (10) | today (12) |
| stop (3) | 76:17 | surveys (13) | 10:11;14:8;22:19; | 5:10;7:5;12:22;50:20; |
| 49:16;99:1;101:7 | substantial (5) | 11:18,18;14:5;19:10, | 23:14;41:6;49:5;97:11; | 52:21;57:16;58:17; |
| stopped (1) | 61:12;64:15;78:3 | 11,19;20:7;27:3;30:22; | 106:21;108:8;111:19 | 59:12;104:15;106:8; |
| 98:19 | 89:16;91:11 | 37:20,20;121:12,16 | terrain (11) | 125:14;126:19 |
| stopping (1) | substation (2) | Susan (1) | 50:12,17,22;107:17; | together (5) |
| 17:6 | 8:2;113:7 | 5:8 | 109:18;111:16;114:22; | 10:12;50:5;61:1 |
| stormwa | subsurface | suspend (1) | 115:1,5;116:2, | 88:21;89:16 |
| 61:16 | 73:7 | 125:10 | testified (5) | told (4) |
| straight (3) | sufficient (2) | swim (1) | 11:21;41:17;80:7 | 9:16;10:18;67:9;100:4 |
| 48:20;65:11,12 | 34:20,22 | 62:11 | 93:8;96:6 | tomorrow (4) |
| stratified-drift (1) | suggest (5) | swimming (1) | testify (1) | 7:6;8:5;104:17;126:20 |
| 77:17 | 29:9;58:7;79:11 | 59:1 | 55:16 | took (2) |
| stream (8) | 124:12,24 | swing (1) | testimonies (2) | 14:23;99:3 |
| 67:14,22;69:6;86:16 | suggested (4) | 93:3 | 39:16;57:14 | top (1) |
| 117:2,13,18;118:1 | 28:11;32:4;69:7 | switch (1) | testimony (33) | 86:17 |
| streams (6) | 101:20 | 78:11 | 6:4,15;12:3,8,13,14 | topic (2) |
| 56:16;117:4,6,9 | suggesting (4) | switchback | 21,22;13:12,16,15:16; | 85:2,18 |
| 118:2,4 | 29:21;77:7,13;107:4 | 85:7 | 24:10;30:12,20;42:3; | topography (1) |
| strikes (1) | suggestions (1) | switching (1) | 47:22;48:2,5,10,12,15; | 59:20 |
| 17:20 | 104:18 | 91:8 | 49:1,6;52:15;54:19; | total (4) |
| structural (2) | summarize (1) | switchyard | 56:5;58:2;67:11;84:15; | 35:4;59:22;96:11,12 |
| 121:12,16 | 50:8 | 112:14 | 94:2;112:1;119:3;127:4 | totality (1) |
| structures (1) | summarizes (1) | sworn (6) | Thanks (1) | 35:5 |
| 23:20 | 56:17 | 11:4,6;47:2,4,5,6 | 89:12 | touch (1) |
| stuck (2) | summary (1) | system (2) | there'd (1) | 65:21 |
| 100:6;101: | 53:16 | 40:13,17 | 99:2 | touched (1) |
| studied (1) | summer (3) |  | therefore (3) | 67:7 |
| 106:7 | 13:22;17:3;6 | T | 29:23;76:23;121:13 | tow (1) |
| studies (22) | supplement (4) |  | thermal (1) | 100:8 |
| 9:20;10:12;13:19; | 15:8;61:19;89:10 | table (2) | 36:4 | towards (2) |
| 19:15,16,17,18,18,23; | 114:24 | 53:16;11 | Thibodeau | 66:3;83:1 |
| 22:11,13;23:22;31:10, | supplemental (20) | talk (2) | 5:22 | tower (1) |
| 11;33:10;37:24;38:8; | 12:8,21;13:12;25:5,7; | 52:23;99: | thinking (1) | 18:14 |
| 39:18;40:2,18,24;43:12 | 30:20;48:5,11;49:1,6; | talked (5) | 29:7 | towers (1) |
| study (10) | 54:17,19,20;56:5;58:2; | 57:19;87:13;88:5; | third (3) | 61:2 |
| 14:2,2;18:17,17,18,18; | 67:11;104:12;111:24; | 90:19;96:4 | 26:18;29:16;55:10 | Town (11) |
| 27:22,23;28:15;38:15 | 112:3;120:19 | talking (9) | though (3) | 26:23;67:2,4,6;76:22; |
| stuttered (1) | supply (2) | 23:13;42:20;87:20; | 10:19;29:3;74:19 | 77:5,13,14;83:9,13;91:6 |
| 91:3 | 73:23;97:14 | 91:17;111:19;112:22; | thought (10) | towns (1) |
| Subcommittee (6) | supportive (1) | 113:2,2,18 | 10:18;51:10;58:6 | 96:19 |
| 5:8;6:1;46:4;97:2; | 70:8 | Talks (1) | 66:22;71:14;80:1,6; | town's (2) |
| 120:23;125:3 | Sure (43) | 90:5 | 81:20;84:21;116:10 | 73:23;75:7 |
| subject (2) | 7:16;10:15;15:5; | tall (1) | threshold (1) | traded (1) |
| 112:5;124:10 | 25:15;29:10;30:16; | 23:20 | 115:4 | 8:21 |
| submit (5) | 32:15;34:6;45:23;47:11, | task (1) | throughout (5) | trail (1) |
| 6:19;8:22,24;12:7; | 19;51:12;61:17;62:9; | 74:8 | 23:17;30:23;42:16 | 65:11 |
| 99:3 chal (1) | 63:16;67:7;68:19;75:4; | tech (2) | 56:22;77:12 | trajectory (1) |
| submittal (1) | 77:1,6;79:5;80:17; | 75:17;88:5 | thrust (1) | 43:10 |
| 110:8 | 82:16,17;84:15;87:23; | technical (4) | 94:22 | transformer (2) |
| submittals (1) | 93:9;94:21;95:10,20; | 50:10;69:19;71:6; | timber-harvesting (1) | 8:1;112:19 |


| transit (1) | 63:17;110:5 | 16:14;17:13;18:8; | vehicles (3) | washed (1) |
| :---: | :---: | :---: | :---: | :---: |
| 102:5 | turn (6) | 21:15,17,18;38:6;42:21; | 23:20;60:24;102:6 | 94:21 |
| transmission (6) | 6:3;11:3;68:14;80:6; | 44:9;46:12;49:8;52:8; | verbal (1) | water (16) |
| 111:23;114:12; | 93:4;125:3 | 60:24;65:10;66:17; | 127:12 | 61:21,23;62:9,12,14; |
| 122:14,18,19;123:22 | turnout (1) | 70:23;71:8;75:9,10; | verify (1) | 73:6,7,22,23;76:18,23; |
| transportation (1) | 99:17 | 77:10,21;85:4;92:6,21; | 50:4 | 89:1;94:24;97:13;99:2; |
| 100:2 | turnouts (2) | 94:12;97:20;99:9;100:4, | versus (7) | 126:4 |
| transporting (1) | 99:23;100:6 | 8,15,17;101:23;102:14; | 17:5,8,21;18:5,17; | waters (1) |
| 123:14 | two (33) | 103:13;104:2;118:20; | 23:13;113:14 | 123:9 |
| trapped (1) | 6:11;8:23;9:4,14 | 119:20;122:17;125:1,15 | vetted (1) | wave (3) |
| 100:22 | 13:19;14:5,10,14;16:6,7, | update (4) | 84:2 | 40:11,20;41:14 |
| traveled (1) | 18,18,21,22;25:19; | 10:22;12:14;56:4; | VHB (6) | way (19) |
| 60:22 | 28:15,19,22;31:24; | 57:19 | 50:9;56:13;74:3,8,16; | 23:10;55:18;57:15; |
| traveling (1) | 34:18;35:2,4,17;37:14; | updated (1) | 87:20 | 71:8;75:9;77:7;86:10, |
| 60:24 | 42:3;50:9;52:16;53:16, | 110:8 | via (4) | 17;100:23;102:23; |
| traverse (1) | 20;54:5;55:8;105:18; | updates (5) | 50:18;51:3,23;70:12 | 107:8;108:4;109:16; |
| 56:12 | 109:20 | 12:12,18;48:24;52:15, | vicinity (2) | 119:11;126:14,15,18,21, |
| traversed (1) | two-night (2) | 16 | 119:5,8 | 22 |
| 114:11 | 14:24;16:16 | upgrade (1) | victims (1) | weather (3) |
| treat (1) | type (7) | 74:5 | 44:16 | 22:22;40:15;41:7 |
| 110:16 | 72:15;74:14;101:21; | upgraded (1) | view (4) | week (2) |
| treated (1) | 102:15;109:7;122:10; | 60:16 | 33:19;100:22;112:15; | 9:17;62:23 |
| 116:11 | 125:18 | upgrades (3) | 114:10 | weekly (1) |
| treatment (4) | types (3) | 67:19;69:6;99:23 | village (1) | 61:16 |
| 6:16,18,20;124:14 | 71:24;115:15;120:16 | upland (1) | 77:10 | weeks (1) |
| tree (1) | typically (2) | 117:8 | visit (3) | 81:21 |
| 18:6 | 98:7,8 | use (13) | 12:15;56:11;57:10 | weigh (1) |
| trend (1) | U | 20:20;33:12,18;35:18; | visits (2) | 124:17 |
| trials (3) | U | $\begin{aligned} & 36: 2 ; 59: 22 ; 60: 13,21 ; \\ & 61: 3 ; 88: 9,14,24 ; 113: 13 \end{aligned}$ | visual (2) | $\begin{array}{\|l\|} \text { weight (3) } \\ 19: 8 ; 55: 8 ; 125: 18 \end{array}$ |
| 44:21;45:3,4 | Ultimately (1) | used (7) | 8:8,10 | wells (14) |
| tried (1) | 125:19 | 8:10;56:22;61:4; | voltage-level (1) | 72:20;73:4,11;76:18, |
| 86:11 | unacceptable (1) | 88:15;113:13;117:21; | 113:9 | 20;77:5,5,15;82:7,14; |
| triggered (1) | 71:19 | 123:18 | Volume (8) | 90:21;97:7,24;106:24 |
| 115:2 | unaudited (3) | useful (1) | 12:5;15:13;48:2;76:7; | weren't (2) |
| Trimble (1) | 8:24;9:2,4 | 126:23 | 82:19,21;86:6,7 | 32:15;107:7 |
| 56:21 | under (9) | uses (1) | voluntary (1) | west (10) |
| trouble (1) | 12:22;26:21;33:3; | 113:15 | 83:19 | 22:11,15;23:13,19,22; |
| $\begin{gathered} 51: 7 \\ \text { truck }(7) \end{gathered}$ | $\begin{aligned} & 75: 7 ; 80: 10 ; 115: 10,11, \\ & 11 ; 127: 18 \end{aligned}$ | $\begin{aligned} & \text { using (5) } \\ & 20: 7 ; 100: 22 ; 111: 2 \end{aligned}$ | W | $\begin{aligned} & 24: 6 ; 45: 12 ; 84: 24 ; 85: 5 ; \\ & 109: 3 \end{aligned}$ |
| $92: 20 ; 99: 18 ; 101: 7,8$ | undersized (2) | $114: 1 ; 118: 8$ |  | wetland (12) |
| 8,13;103:10 | 60:19;68:3 | usually (1) | wait (1) | 56:20;75:21;84:11; |
| trucking (1) | understands (1) | 18:6 | 110:22 | 86:2,2,11;96:19;105:9; |
| 79:12 | 111:21 |  | waiting (1) | 114:20,20;117:13; |
| trucks (9) | understood (1) | V | 120:9 | 119:12 |
| 93:3;99:12;100:4,11; | 118:8 |  | walk (2) | Wetlands (31) |
| 101:5,5,17;103:5,9 | unfortunate (1) | vacation (1) | 57:11;70:2 | 50:12;51:2;53:4; |
| true (4) | 42:11 | 101:11 | Walker (51) | 55:14;56:16,19,22; |
| 20:2;22:18;24:2,4 | unit (1) | value (1) | 46:24;47:6,14,14 | 58:20;61:24;72:14;76:5; |
| try (9) | 56:21 | 41:1 | 48:8,13,16;49:4,5,22,24; | 82:6,21;95:15,17,20,23; |
| 30:4,7;54:9;55:1,4; | University (1) | Vanasse (3) | 50:9;52:8;57:21;61:19; | 96:10,15,16,20;109:18; |
| 75:4;85:12;92:3;127:6 | 62:24 | 47:12,15,17 | 68:15,18,24;71:1;73:16; | 114:9,19;116:1,9,13; |
| trying (6) | unless (5) | variable (2) | 74:1,16;75:13,15;76:2; | 119:5,9,14,23 |
| 17:20;40:19;54:23 | 29:19;58:3;84:22; | 31:12,21 | 78:15;79:9;80:13;81:8, | what's (18) |
| 62:21;88:9;97:22 | 110:19;124:5 | variables (6) | 10,15,19;83:14,18,20; | 12:9;27:1;44:19;48:4; |
| turbine (15) | unlikely (2) | 22:22;40:16;41:5,9, | 84:1,9,24;85:3,7,9; | 51:13;58:9;69:23;79:12; |
| 8:14;18:7,10;31:9; | 115:3,5 | 13,22 | 105:5;108:17,110:7; | 88:2;101:12;102:5; |
| 33:2,5;40:9;42:23;43:9; | unreasonable (6) | various (2) | 111:5;114:23;115:18; | 111:3;113:20;114:7; |
| 86:18;100:11;116:22; | 27:4,8;29:17;96:7; | 88:13;100:1 | 116:6,18,20;118:19 | 124:16;125:20,21; |
| 119:6,18,22 | 126:3,7 | vary (1) | warm (1) | 126:20 |
| turbines (12) | unusual (2) | 32:3 | 64:8 | whereby (1) |
| 17:13,15;39:13;41:2; | 17:1,23 | vehicle (4) | warming (2) | 67:13 |
| 43:8,11,14,18,19;44:16; | up (40) | 100:8,13,21,22 | 63:14,15 | WHEREUPON (4) |



