# STATE OF NEW HAMPSHIRE <br> SITE EVALUATION COMMITTEE 

September 18, 2017-9:02 a.m.
DAY 35
49 Donovan Street Morning Session ONLY
Concord, New Hampshire
\{Electronically filed with SEC on 10-02-17\}

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

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

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

ALSO PRESENT FOR THE SEC:
Michael J. Iacopino, Esq., Counsel for SEC
(Brennan, Caron, Lenehan \& Iacopino)
Pamela G. Monroe, SEC Administrator
(No Appearances Taken)
COURT REPORTER: Steven E. Patnaude, LCR No. 052

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[WITNESS PANEL: DeWan|Kimball]

## PROCEEDING

CHAIRMAN HONIGBERG: All right. Good morning, everyone. We're starting Day 35. And the Committee is going to be asking questions of the aesthetics panel.

We're going to start off with
Mr. Oldenburg.
MR. OLDENBURG: Good morning, Mr. DeWan and Ms. Kimball.

WITNESS KIMBALL: Good morning.
WITNESS DeWAN: Good morning.
MR. OLDENBURG: I'm Bill Oldenburg, Department of transportation.

BY MR. OLDENBURG:
Q Could you refresh my memory -- a lot of these questions that $I$ have are similarly sort of clarification-type questions.

A (DeWan) Certainly.
Q Because everybody delved into a lot of the details on specific properties and specific resources. And I'm just trying to gather some more information to get it clear in my mind exactly how you did what you did.

So, could you refresh my memory, when you
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did a photosimulation, at what point in time is that photosimulation -- what does that represent from a point in time?

A (DeWan) From a point in time -- we did a number of photosimulations --

Q Uh-huh.
A (DeWan) -- at various points in time.
Remember, we initially did a series of photosimulations that captured the appearance of the existing landscape when we went out and visited it at a wide variety of times during the course of the year. And we then went back when we saw the final rules, which required a representative sampling of photosimulations in leaf-off conditions. So, we went back during the wintertime, primarily in January and Eebruary of that year.

Q So, are they -- so, they're taken at a certain time. Do you advance them, so that, when the Project is complete, so, you might take a picture in 2015, and, when the Project is complete in 2020, do you try to change the photo to make it represent what it's going to look like in 2020, with like tree growth and
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stuff like that?
A (DeWan) You know, ideally, that's probably what we should do. Because we know that we're taking the photographs, you know, two years ago, and, by the time it's approved and built, it's going to be five years hence. We did not do that.

And $I$ think that you saw that, for example, in McKenna's Purchase. We showed a photograph of what those pine trees look like, they're fairly sparse. Then, we also saw an image of what it looked like today, and there was quite a stark difference. The trees had grown, they had filled in a little bit.

So, yes. Ideally, we should, but we have not made any attempt to do that. Okay. So, you took a picture, and whatever time it was, and you just photosimulated that? You didn't --

A (DeWan) Yes.
Q You didn't try to change the photo in any way to represent what it would look like in the future?

A (DeWan) We did not. And, as I said, that would
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probably be the ideal. But, if we did a little bit, then we'd really have to think about "well, what does the entire landscape look like in five years, let's say?" You know, the trees are going to grow incrementally taller. It's rather difficult to do that.

Q So, when you -- another topic. So, when you rank the resource, so, when you went out and ranked the resource, you ranked it specifically for the uses at that time, correct?

A (DeWan) Yes. Our evaluation was done when we were there looking at it, yes.

Q Okay. So, I think we touched upon enough, for me at least, on the specific individual properties. The one I have -- the ones that I have a hard time grasping are the larger ones, like Coleman State Park. So, I pulled up and on the screen is, from your report, is Coleman State Park. And you noted it has a great number of uses by a great diversity of people. And, so, what $I$ did is, this is your assessment from the pond, where you assess the use as "medium", and then for the Visitor Center and the campground as "low". And the next part is
[WITNESS PANEL: DeWan|Kimball]
you have users groups, and the expectation there from the users you have as "medium". And, in the user group, you list anglers and boaters, and, you know, you see your assessment there of all these different groups.

A (DeWan) Yes.
Q So, I'm wondering how you take all those different groups and rate them. So, one question $I$ have is, did you review this -- did you review the park from like the entrance to the park and rank that?

A (DeWan) Yes. I don't know if "ranking" is the right word.

Q Okay.
A (DeWan) But we did the evaluation, yes. We have two separate photosimulations. One is at the park -- well, what you call the park entranceway there, where you came off the road and that's the view that you would see, $I$ think primarily during leaf-off conditions. And, then, we did another one down by the lake. Okay. And did you go up and see the cabins at the Coleman Estates and do a rating of that use?
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A (Kimball) Are those located in the state park or is that a private development around --

Q I believe they are. The impression I had, they were. And, to verify, I went on the state website and it listed it as being part of the Coleman State Park. But $I$ wasn't -- I'm not positive. The only reason $I$ bring up Coleman State Park is it's fresh in my mind. We went on a site visit and we stopped at coleman state Park. We went to the campground, we went to the boat launch, and we went back by and it was pointed out to us the Coleman Estates. And I think one of the rangers that was there explained the Coleman Estates, the cabins there, how you could rent them through the State Park ground.

A (DeWan) And we did not go in, yes.
Q And you talked about, if $I$ remember right, you didn't really rate any of the properties from like trails, because of the wide-ranging, you know, mileage of trails, or did you rank them from like hiking trails or ATV trails?
(DeWan) Well, we looked at the viewshed mapping, and we looked at where the Project may
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be visible from. And $I$ think that was the basis for doing the work that he did. You know, we found those places where the viewshed maps said the Project would be most visible from.

Okay. All right. So, the park, from your assessment, is like over 1,500 acres. So, how do you take all those different uses, and all those different folks that access the park, and assess them all and clump them into one overarching rating?
(DeWan) I think what we -- to answer your question, we looked at all the various types of uses, and try and get a sense about, you know, "are people going to be affected by the view of it, depending upon the uses that they are enjoying there?"

You know, let's just take ATV riding. We know that's a part of a very large network, and snowmobiling, snowmobile trails. Now, a lot of those use existing corridors. There's an extensive series of, you know, hundreds, if not thousands, of miles of trails up in that area. We know that there was a limited number of the
trails that would have any visibility. I know that there's some people that go across the pond, some people would go along the edge of the pond.

A lot of the people that go there to enjoy this, and apparently it's very popular with snowmobilers, they park down at the boat launch. And that's a place that does not have a view of the Project, because it would be in back of them at that point.

So, we get a sense of, you know, where they're going, what their activity is, what they're doing. Are they moving? Are they stationary? What else do they see along the trail? And those are all considerations that we take when we come up with an evaluation of how the facility that's being proposed would affect their continuing use and enjoyment of that type of activity.

Q Okay. So, I guess the next thing, and you sort of -- sort of led into my next question, and it's more of a hypothetical.

So, people are going to Coleman State Park. And you mentioned ATV users and
snowmobilers. So, they're on the trails.
They're sort of looking at the trails. They actually, I think you previously testified, they actually may use, legally or illegally, the corridor itself to go up, you know, to go up and down. So, they may view it as, say, "low", it may have a low visual impact to them. And, say a fisherman in the boat on the pond, you know, he's paying attention to the water, he's looking for fish. He may look up occasionally at the scenery and see how beautiful it is and everything else. So, let's say he may assess that view impact as "low".

A camper at the campground, depending on why they're there, $I$ realize campers go, they might go to ATV, they may go to fish, they may go to hike. So, maybe their impact is "medium".

And, then, you get the hiker, who is there truly to see the scenery and the wildife and the non-human encroachment, may see that impact, even though it's relatively, you know, isn't seen very often, may say that's a "high" visual impact.
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So, how do you take those different ratings and lump them altogether? Is it more a qualitative or quantitative assessment?

A (DeWan) Well, let me answer that more indirectly, breaking it down by the types of uses that you just described.

Q Okay.
A (DeWan) The person is out there fishing, and I think we've testified to the effect that fishing is one of those activities that has a medium relevance to scenic quality. Okay? And, so, a person who is out fishing is going to expect to be in a nice surrounding. And, so, I think the question in our mind "well, what percentage of their experience or their view is going to be occupied by the facility?" And we know that there's seven or eight structures that may be visible as it crosses over that hill. We know that there is a limited amount of the 360-degree experience that somebody can have when they're out fishing.

So, our understanding is that, yes, people who are fishing have a medium expectation of
visual quality. And the fact that this is there may somewhat diminish their enjoyment of the facility. But, if they're there to fish, that's, to us, the motivation for being there. And, whether or not they can see these structures at a distance of 1.2 to 1.4 miles, $I$ think, is going to be a factor. But we don't think it's going to stop people from going there. If they're going there to fish, that's not going to affect their views. It may affect they're enjoyment to some extent. That's why we rated it as a low when we tried to balance continuing use and enjoyment.

People that are hiking, first of all, we didn't see, in the work that we did, an awful lot of hiking trails in the area. And, so, if this is a park that's well known for hiking, I think we would have paid a lot of attention to it. We didn't see that in this particular situation.

People that are camping, you know, most of the campsites are in the trees or surrounded by vegetation. And, yes, when we get out of your tent in the morning, you may have been able to
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look up and looking the back of your tent, you might see those up on the hillside. But, again, for the most part, they seem to be screened by existing vegetation.

So, it does matter to some degree the number of the people that use the resource?

A (DeWan) Yes.
Q Correct?
A (DeWan) Yes.
So, do you, because there's a thousand ATV users, and fifty boaters, and one hiker, do we ignore the hiker? Or, does the ATV use over -because of the sheer quantity, does it overrate everyone else?

A (DeWan) Yes. I guess, well, that gets to that whole question of "extent, nature, and duration", which we've done an evaluation for. And "extent", of course, is the level of use that it gets. You know, from our reading and our understanding, this is a place that's heavily used by snowmobilers and ATV users. And, so, you know, that got a significant rating because of the number of people that use it.
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We look at the nature of the use, you know, what they're doing there, and we've just talked about that. And then the other question is "the duration". How long are people going to be exposed to the view of this. You know, if someone is out fishing, they might see it for $a$ few minutes, or half an hour, when they're out there. Depends upon, you know, a lot of factors, like the direction of the wind.

A person who's camping, it depends on where they are. You know, if they're in the woods, they're probably not going to see it at all.

Q Okay. So, how did you determine how many people would use the resource?

A (DeWan) Not the specific number. We talk about "relative numbers". All right. (DeWan) And $I$ think we've testified that it's very difficult to get exact numbers or even approximate numbers. Those are records that just aren't taken.

You know, we know, in some situations, we were able to talk to people that said "oh,
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yeah, we get 50,000 visitors a year." And we saw that, in fact, at Franklin Falls. But, for the most part, we don't have that information. So, you know, we look at the type of facilities that are out there, we look at the size of the parking lot. And, in the case of -- at Coleman State Park, it looked like the parking lot held about thirty cars or so. And the people who may be camping, you know, that may add another thirty.

So, we know that, judging from this observation, the fact that there's a lot of publicity about this place, this place is pretty popular.

Q Okay.
MR. WAY: Mr. Oldenburg, may I ask a quick question?

MR. OLDENBURG: Sure.
BY MR. WAY:
Q Mr. DeWan, so, in Coleman State Park, did you talk to anyone in the park?

A (DeWan) We did not. We relied upon information we were able to find.

Q And, so, that's one thing, and when $I$ get to my
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questions I'll talk about it a little bit more that I'm wrestling with. You're in the park, you're taking a lot of pictures. There are people there that know the park. And you just said you're making assumptions based upon the parking lot and maps and all that. Why wouldn't you talk to someone in the park?

A (DeWan) I think the day that we were there, we got there, $I$ don't know exactly the situation, I don't think there was anybody around that we saw. Perhaps we should have. But there's -our experience has been that there's just not a lot of information like that available readily. There's not a lot of the information? (DeWan) Like use, use numbers.

All right. So, I mean, the head of the park would probably be able to tell you the use numbers, the hiking trails, who's, to Mr. Oldenburg's point, who is using the park more than others. But that -- and can $I$ assume that that's true for other state parks as well, that you didn't talk to people at the park? (DeWan) I think that's a fair assumption, yes. We looked at annual reports, and sometimes they
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would have information about the number of people that visited the park.

Q Did you talk to Parks \& Trails at the State for any of those numbers originally?

A (DeWan) We did not. We got -- some information was available, for example, Weeks state Park, there is rather detailed information on the number of people that visited some of the facilities, that participated in programs, and went on guided tours.

MR. WAY: Thank you.
BY MR. OLDENBURG:
Q So, I can also assume Mr. Nichols, the tourism expert, he didn't have specific numbers for tourists going to these spots either. He had sort of "regional numbers", as he called it. So, the tourism numbers weren't useful in your analysis either, I would imagine?

A (DeWan) As you said, those were kind of generalized statements. We didn't rely upon his report to any degree.

Okay. Moving on to a different topic. So, I think it was Ms. Boepple, from SPNHF, who showed you the scenic byways map.
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A (DeWan) Yes.
Q And you agreed you'd seen it?
A (DeWan) We have.
Q And $I$ think you, in your assessment, testified that the routes of the underground section are considered scenic resources. And, see if my -so, if you can see my cursor up in Bethlehem, around 302 , we come down to a section that isn't part of the scenic byway. But 116, through Franconia and Easton is, and 112, into Woodstock, and then down Route 3, all the way to what appears to be about the roundabout in Plymouth, is all considered the River Heritage Trail Scenic Byway?

A (DeWan) That is correct.
And, in your Subarea 3 assessment, you showed 46 resources along that route, two or three I think were the scenic byways. The main one being the River Heritage Trail Scenic Byway. All of them you listed as -- potential visibility as "no", except for the ones that had little asterisks that said "the transition stations at either end would be seen".

A (DeWan) That's correct.
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Q And just those are the two scenic byways that you had listed as "medium" for cultural and "no" for visibility. You've already stated, this is out of your report, about what a scenic byway is and what a visual impact is. Just in order to refresh your memory.

And, then, in your Impact Summary, I wanted to focus on a couple of the things that are in the Impact Summary. Under the significant -- number 2, which is the "Significance of Scenic Resources and Distance", you list the 46 resources. And you say that some of them are statewide significance that intersect or share the roadway with the underground route, and one being the River Heritage Trail Scenic Byway. But, because the line is located underground, there will be no permanent visual impact of any scenic resource.

Correct? That's your -- that's right out of your assessment.

A (DeWan) That's right. Yes.
And then the extent, nature, and duration of the public use, you again say "none of the
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activities will permanently be affected by the presence of the underground line." Correct?

A (DeWan) That's correct.
Q The overall visual impact, none of the scenic resources identified will be physically affected by the installation of the underground transmission line.

I want to stop there and ask about the River Heritage Scenic Byway. I mean, the line is going under the road. So, how is that not physically affected by the installation of the line? I mean, for almost fifty miles, the scenic resource is being dug up.

A (DeWan) Yes. We, for the most part, did not identify "temporary" impacts.

Q Okay.
A (Dewan) Recognizing, of course, that, you know, we've heard a lot of testimony about what it would do to traffic patterns and so forth. You know, our evaluation looked to what was called the "end game". What is going to happen once the facility is in place?
okay.
(Dewan) And, so, our assumption was, you know,
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back then, as you heard, when wrote this, it was going to be within the paved portion of the right-of-way. And, you know, after it was in place, and the ground -- the facility was finished, and the road was repaved, life would go on. There would be no obvious change.

Q Okay. So, the reason why I highlighted the "permanent", where you said "permanent" and "little evidence will exist following construction" is the construction -- isn't the construction going to be the most visible impact that people will get of the whole underground?

A (DeWan) Yes.
Q But you really didn't assess the two-year construction period, where the road's dug up, and all the scenic resources that are along that route, the 46 or so that are within the area, are going to have to look at it. So, that wasn't part of your assessment?

A (DeWan) Well, we felt that that was part of the construction panel's report. And we sat in and heard a lot of the testimony from the people, and we heard the construction panel talk about
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the effect that it may have.
Q Okay. So, I guess how much of a visual impact would construction have to be for you to say "this is a visual impact" as part of a project? (DeWan) Well, there will be a visual impact. There's no doubt.

Q Okay.
A (DeWan) There will be a temporary visual impact. And, you know, it will involve, obviously, the construction, the presence of the machinery that will be used, involved in it. And it will be done, as $I$ understand, on a segment-by-segment basis. So, it won't be for the whole two-year process. And I don't know how long it would take to do any one particular segment. But, yes, there will be a temporary impact.

Q I think what the -- I don't want to put words in their mouth, but $I$ think what the construction panel testified is the entire 50 miles is basically going to see construction for the whole two years. You know, there's -just the method that they have to use to put the trench 50 miles underground, and all the
vaults that they have to place, and then come back in and cable, connecting all the cables up, that there would be construction along the whole 50 miles for that two years. It would take them that long to build the underground. So, it may not be in front of someone's driveway, but it might be a couple hundred yards down the road. And then all the horizontal drilling locations and everything else.

So, I just -- I didn't know if anybody had really in-depth explain to you what the construction would entail?

A (DeWan) No. We were really looking for, you know, what would happen after it was in place. Okay. I think I understand what you did there. (DeWan) Yes.

So, that just reiterates that. And, so, that was -- I couldn't understand, and now I understand it better, how you -- the continued use and enjoyment, how the construction is going to affect how the resource is currently used. It will affect it, but for a short period of time, so that's not considered,
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correct?
A (DeWan) That was our understanding, yes.
Q Okay. And that's the same for the public's
enjoyment of that resource for the two years
while it's under construction or so. Once it's
done, the enjoyment of that would -- the use
would be back to normal, that's sort of what
you're saying?
A (DeWan) Yes. That is our anticipation.
MR. OLDENBURG: All right. I have no
further questions. Thank you.
CHAIRMAN HONIGBERG: Mr. Way, you
want to go next?
MR. WAY: Sure. Give me a moment.
Good morning again.
WITNESS DeWAN: Good morning.
WITNESS KIMBALL: Hi.
MR. WAY: As Mr. Oldenburg said, I
think we've talked a lot of the details and a
lot of the questions $I$ have is just to clarify
in my mind. Excuse me.
BY MR. WAY:
Q First off, on the photosimulations, a couple
quick questions. I think $I$ saw in your
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supplemental testimony that you had done a few before-and-after photos, did I not? I thought I saw that. There was some pictures of photosimulations that had been done, and then a project -- a representative project you showed afterwards?

A (DeWan) Oh. You're talking about work that we had done in other situations.

Q Yes. Work that you had done previously. I'm sorry.

A (DeWan) Okay. Yes. Yes. I think we provided a couple of examples from the work that we did for the Maine Power Reliability Program.

Right, the Maine Power Reliability Program. So, you had pictures that you put into your testimony. So, the question $I$ have is, is that a common practice for you to do, is to take pictures, while you have your photosimulations, and then, after the project is done, you go back and, from that same vantage point, take other pictures?

A (DeWan) We have done that in a few occasions. I must say that this particular request caused us to go back to these places and rephotograph
[WITNESS PANEL: DeWan|Kimball]
it.
Q And, so, when you -- when you look at what you had projected in your photosimulations, and what actually came to be, the photos that you provided, they were very good, they were spot-on, I thought. But were those -- is that representative of your work? In other words, your photosimulations that you tend to put together, is that actually what occurs in the final --

A (DeWan) We certainly think so. And I think that's one of the reasons why clients keep coming back to us, because we are able to produce these images. There were a few changes. I don't know if you noticed carefully, but sometimes things get adjusted during the course of construction. You know, pole heights may very slightly. But, I think, for the most part, those were, to use your words, "spot-on".

Q And, so, I would have to imagine that, if there are instances where it's not spot-on, you probably didn't -- do you have pictures of situations when it wasn't spot-on, when the
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photosimulation wasn't representative of what the final outcome was?

A (DeWan) I don't believe so, no.
Q What are some of the factors that are within the control of Northern Pass within that right-of-way that might alter that, what the photosimulation had projected?

A (DeWan) Well, we've talked about the subject of de minimis change, for example. And, as part of the development of the Project, we may find that, for example, we've talked about the use of landscaping along, in some situations, as a mitigation measure. Obviously, our
photosimulations did not include that. But I talked the other day about the one photosimulation that we had of the transition station that would be visible from the scenic byway along Route 145, in Clarksville. And I suggested that, with time, the existing vegetation that's between the observer and the transition station probably would grow another five to eight feet above the image that we showed. There would also have been the opportunity to use earth berms and other
[WITNESS PANEL: DeWan|Kimball]
mitigation measures to help screen that particular Project.

So, what we showed you then was what it would look like if the Project had been built at the time we took the photograph, which was a couple of years ago.

So, to answer your specific question, at that particular point, the actual photograph taken, let's say, five years from now is probably going to look somewhat different from the photosimulation, because of the fact that there will be growth in the vegetation and there may additional mitigation measures.

Q Thank you. And $I$ would imagine, in other projects, it's probably much like we have here. You have a photosimulation, and there will be criticism of that simulation. Has there been instances where the photosimulation did not come out as expected, that maybe criticisms of the photosimulation came to bear?

A (DeWan) Perhaps I don't understand what your question -Well, in other words, did you ever make -- I mean, these are projections, these
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photosimulations.
A (DeWan) Right.
Q Have you been wrong?
A (DeWan) I remember there's a couple of instances where light conditions were slightly off. You know, we assumed a certain amount of visibility of the structure, it may have been more or less visible. But $I$ think the intent, though, is to provide a view of the overall Project. What will it change -- how will it change the overall view?

I think what we've noticed in a few situations, there have been places where they're -- because of light conditions, may have changed. It looks different. And that's an interesting point, though.

Lighting conditions play a great deal in the development of photosimulations. And just take wind power projects, for example. We try and do ours that show, you know, the worst case scenario, when the turbines are fairly bright and white. Sometimes we go back, and the photographs that we take show the turbines a different color because of the cloud patterns.
[WITNESS PANEL: DeWan|Kimball]

There's so many factors that go into this. It's hard to give you an exact answer.

Q You took hundreds of photos from what we were talking about last week.

A (DeWan) I think it's more like tens of thousands.

Q Ten of thousands.
A (DeWan) Yes.
Q All right. I'll give you tens of thousands.
A (DeWan) And we may have given you tens of thousands.

Q Thank you. What percentage of those would you say were taken from private property?

A (DeWan) A very small percentage.
Q And the reason I'm asking, because I'm looking at the rules, and as we go through this more and more we're going to be focusing a lot more on the fine details. 301.05(b)(7), and I think it says "to the extent feasible, from a sample of private property observation points within the area of potential visual impact", the key observation points. Was there any attempt to have photos taken from private property or did you pretty much stay off of that?
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A (DeWan) For the most part, we did not go onto people's private property. There were some instances where people asked us to go onto their property to take a photograph from the backside. I think we saw one near Weeks State Park, just south of Weeks State Park that we talked about. Obviously, places like the Mountain View Grand, that's private property, and we photographed from places like that. We have probably half a dozen situations where the public was already invited onto private property.

Q And, when you said the "Mountain View Grand", if you took it from the road, the road is not private property, correct?
(DeWan) Right. And our photosimulations is taken from the veranda at the end. So, I guess, as I mentioned earlier, I want to explore a little bit more about this public process. We're going to be getting into orderly development, Mr. Varney is back there I saw, later today. And I'm trying to get a sense of what the process was that you decided that there was not a need to go to the
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communities for more information. So, for example, when $I$ go to a place $I$ haven't been before, or that I'm reasonably unfamiliar with, I'll look online, I'll go to literature, and then, when $I$ get there, I'm talking to people and I'm finding out what's of interest to them.

And $I$ know we've sort of beaten this over and over, but I'm still trying to get a clarity of why you didn't decide to do that. Because, for example, in Coleman State Park, it seems like talking to the park manager would have cleared up a lot of the issues that we discussed in the question.

What was the thought process for not making that interaction?

A (DeWan) A lot of times we went to places before the parks were open, Forest Lake State Park, for example. Many times we were there when there just didn't seem to be anybody around. I think we probably wanted a consistency in the way we did the evaluation.

Where there were people that were available, we, you know, we would contact them.

You know, for example, we intercepted a ranger
who happened to be at Franklin Falls Dam, and we had a good conversation there, and got some -- her impression about use data.

But, you know, we relied, for most of the work that we do, on published information. And, $I$ 'm trying to recall from the earlier testimony, has that been the norm for all your past projects or has there been more or less more interaction with the communities? (DeWan) I'm just thinking back over the years. Our norm has been to rely upon published data, because the published data is what we rely upon to create a record of what the community has felt is significant. If we're looking at, for example, where are there scenic roads or where are there scenic overlooks? Generally, if a community feels that these resources are significant, then they will be included in either scenic assessments or in their town master plan or their comprehensive plans. Some of the questions I've had for the other panelists has focused on the same issue. And there seems to be somewhat of that same theme of not interacting directly with the community.

And I know you were asked, and I think by the Counsel for the Public last week, whether you had been told not to do that step. Was there any coordination with the other panelists at all to not have that interaction? Or is this something you came up with and decided a pathway by yourself?

A (Dewan) I think that's a fair characterization. That's typically the way we do these sort of assessments.

Q So, there was no --
A (DeWan) We were not told by the attorneys or the Applicant "don't talk to people". Well, and when $I$ say "don't talk to people", I'm talking about communities. There was no direction there?

A (DeWan) There was no direction that was given. Q No coordination with the other panels that just so happened to have that lack of communication?

A (DeWan) We did not coordinate with other panelists or other consultants.

All right. Ms. Kimball, because $I$ don't want to leave you out of the mix here, you had talked a bit about what you need to do when you
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first come to an area, and that you may not be familiar with, and you have to make an assessment of where you're going to study. And, as $I$ recall, you said you go to the databases, and $I$ think you explained what those databases were last time. Then, you talked about master plans. And those were helpful to you, the master plans?

A (Kimball) Very helpful. Some master plans, like, for example, the Deerfield Master Plan references a great number of scenic resources to include. Other master plans, depending on how they were conducted, are more sparse. But I think it provides a good representation of places that are important to the community after they have gone through the public process of having to identify those places.

Q So, they're very important to you. I'm looking, and having worked with communities at some points with master planning, I'm familiar that a lot of them don't have them on the website. What percentage of the communities did you look at master plans?

A (Kimball) I believe all of them. And we used
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Normandeau Associates, who is doing the orderly development work.

Q Okay.
A (Kimball) They also used the master plans. So, if $I$ wasn't able to get one off of the website, I would ask them for the material.

Q So, you were able to get a master plan for every affected community?

A (Kimball) I believe so. Nothing comes to mind of one that may have been missed.

Q Regional planning commissions, because we have to take into account their input as well. Did you have any coordination, any communication with regional planning commissions?

A (Kimball) We did not.
Are you aware of regional planning commissions and what their role is in this state?

A (DeWan) We are, to some extent.
A (Kimball) Generally.
Q Generally?
A (DeWan) Yes.
Q And they may have been a good resource as well, because I think, even like North Country

Council, $I$ believe they have their own master
plan that addresses some of these types of activities.

A (DeWan) We relied upon the corridor management plans that are created by the scenic byways councils. And we collected and reviewed all the ones that were available for the scenic byways that were within our study area.

Just a couple quick questions on historical sites. So, the list of historical sites, just to recap, that's what you got, Division of Historical Resources, they are either eligible or on the Historic Register?

A (Kimball) Correct.
Q National Register?
A (Kimball) Correct.
Q And I don't know if you were available for that discussion, but we had talked about our interpretation of the rule. I think it's -- I don't have the rule number right in front of me. But the concern that includes those sites that are on the National Register or eligible may not be the whole universe that we might look at. Were you available for that discussion?
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A (Kimball) This is with the historic panel? Q Right.

A (Kimball) I don't believe we were here for that portion of the discussion.

All right. You did clarify more on the continued use and enjoyment concept. One of the concerns $I$ have is that continued use and enjoyment, does that focus more on tourism, on visitors, than it does to the actual people that are living in the affected area, in your mind, people that are visiting?

A (DeWan) We were -- not just the tourists, because tourists to us are people from outside that come to an area. But continuing use and enjoyment really addresses the way the scenic resource is used right now by, you know, people that live in the area, people that may come from the surrounding towns, people -- as well as tourism, people that come to the resource. The enjoyment piece is the hard thing to evaluate, $I$ have to imagine, because continued use, if I live, for example, on Turtle Pond or if I live on Route 145, it's the only game in town. And, so, I'm going to continue to use it
more than likely. But, you know, I'm still wrestling with the idea of how you evaluate enjoyment.

And the other thing that concerns me is $I$ hear the word "think", "believe", "assume" a lot. But how do we know, we haven't done surveys, we haven't really talked to people that might be using that resource. There hasn't really been a discussion with tourism. How do you know the extent to which people will continue to enjoy it?

A (DeWan) Well, to the extent that there is an analogy between infrastructure projects of this scope, you know, we looked at the Baskahegan study that was done in Maine, we looked at the Lempster review that was done here in New Hampshire. Those are the questions that were asked. And people's reaction was, yes, I know, in the Baskahegan case, people --

Q And if $I$ could interrupt. Sorry, Steve. You said "the people were asked". Who was asking? (DeWan) There is a -- in both cases, and in the Baskahegan study I'm more familiar with, that was a survey that was done by First Wind, the
[WITNESS PANEL: DeWan|Kimball]
group that did the wind power project, that was highly visible from most of Baskahegan Lake.

And several years after it was -- the wind power project was in place, Kleinschmidt Associates, an engineering firm from Maine, with a very strong record in the recreation evaluation, developed a survey, and they interviewed people who were using the lake, and asked them questions about their experience in using it, how they liked the lake, how they liked the changes that they had seen. And they got to the question about whether or not it had had a noticeable effect on use patterns and people's enjoyment. And, for the most part, it's almost surprising to say that people accepted the fact that the turbines were there. And people also said that, from, again, these are the people that were actually there recreating, they thought that the use levels had actually increased in the preceding several years since the Project had been put into place.

Q But those -- and those are the intercept surveys that we had talked about?
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A (DeWan) Yes. And, again, we weren't involved in that.

Q Right.
A (DeWan) And I think I referenced that in some of our -- in our supplemental prefiled testimony.

Q But there was a value to you of those intercept surveys?

A (DeWan) Well, they weren't our intercept surveys.

No, but to you, --
(DeWan) To us, yes.
-- and maybe as options in this project, -(DeWan) Yes.
-- you did consider intercept surveys. And, once again, so $I$ clarify in my own mind, the reason we decided not to do the intercept surveys in this case, did $I$ hear you say that there was a concern that there was just so much awareness of the Project, it might be difficult to get that -- those questions answered? (DeWan) That was a consideration. Certainly, the logistics of doing the type of survey that may have been required over 192 miles was very
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high. As I mentioned before, we looked to see if anybody had any recollection or any experience with doing intercept surveys for transmission lines. We certainly haven't had any experience. We have never had a client ask for it. I know that T.J. Boyle Associates has done a lot of transmission work over the years, has never done an intercept survey. We went online, checked other resources, did not find anybody that has done one specifically for this type of project. That's why we looked for what we felt were relevant studies for similar type of large scale infrastructure projects. So, it was mostly the size of the Project, just the very large nature of the Project that just didn't make it feasible?

A (DeWan) Well, it was not an easy decision. The size was certainly one factor, the variety of different resources that would be encountered, the number of contact points that would have been required. The fact that it would have required a different type of survey than the one that we were very familiar with and had been instrumental in helping develop over the
[WITNESS PANEL: DeWan|Kimball]
years for wind power projects.
I think another consideration, of course, was did the rules, as we understand them, require an intercept survey? And I think that was very instrumental in leading us to a conclusion.

Q I think the hard part about that is we're going to have to evaluate whether there's continued use and enjoyment. And, with all due respect, it's really coming down to your belief that people will use it in the manner in which they have used it before, maybe even continue to enjoyment it. And based upon surveys that had been done in other studies. But there really isn't a lot of feedback directly from the resource site?

A (DeWan) From specific locations.
Q From specific locations.
A (DeWan) Yes. Yes. One of the other things that we found, just to continue that discussion, when we've done these in Maine, in most instances, we've had the advantage of being able to talk with the peer reviewer. And, in many cases, then Mr. Palmer, who has
reviewed the draft of the intercept survey to make sure that it was totally objective.

There's always that fear that the questions could be asked in such a way that perhaps biases the result. So, you know, he acted as an objective third party, has reviewed the surveys, has suggested changes to the questions or additional questions to be asked. And, we didn't have that advantage at this point.

Q Because $I$ would have to imagine, like you're just saying, that a good surveyor can ferret out the bias. And all of these projects are always large that we're talking about?

A (DeWan) There is that potential. And, so, we wanted to make sure that, again, for our work that's been done in wind power work in the past, that we could say we've had somebody look at it and help to develop the survey to try and figure out any bias.

So, with everything you've heard last week, and some of the things left to do, you get the call from Eversource and say "We want to retain you for the next six months, a year? What would you envision you might be doing? What
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follow-up from these discussions might you do?
A (DeWan) Well, the one thing that comes to mind, and, again, this will depend upon the discussion that's occurring right now is the whole question of mitigation. And, again, $I$ have to go back to draw a parallel between the work that we've done here for Northern Pass and the work that we did for the MPRP project.

And, following the approval of MPRP, in Maine, we went back and worked with dozens of individuals in situations along the line to develop the sort of planting plans and screening plans that we've talked about and described in our supplemental prefiled testimony that you've heard Mr. Bowes talk about.

Ms. Kimball, do you have anything to offer? (Kimball) No. That was -- I think that that's a good characterization of the next steps following the approval.

Q All right. One last question. And it's completely different from all the others, but I just had a note here. In terms of Deerfield, and $I$ honestly can't remember from the
testimony, was there a discussion of vantage -of views from vantage points like the Deerfield Fair, or other types of tourism-type, temporary activities?

A (Kimball) Well, the Deerfield Fair Grounds were listed in our scenic resource table. I believe we went to the Deerfield Fair Grounds and took a look at potential visibility. And I can look back to our report, but, for that particular location, $I$ believe it was two miles away, if there's potential visibility. Not enough to rise to a level of concern.

Q And you feel you've captured the other communities that may have activities like that that may not be on databases, but, you know, certainly may be important to the Town?

A (DeWan) I think that the range of photosimulations that we've provided are showing the Project. And how it will be visible at the foreground/midground/background is representative of the Project as a whole. While we may not have captured individual places, I think the information that we've provided is enough to give you and the
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communities a sense of what it would do in their particular community. We've tried to capture the most significant ones as we did our work.

MR. WAY: All right. That's all I have for now.

CHAIRMAN HONIGBERG: Ms. Weathersby.
Actually, before you start, $I$ think
Commissioner Bailey wants to follow up on something she just heard.

BY CMSR. BAILEY:
Q Ms. Kimball, you said that the Deerfield Fair Grounds were more than two miles away?

A (Kimball) Yes. Let me look.
Q I mean, two miles, why would you stop the analysis there? It's not an urban cluster in Deerfield, is it?

A (Kimball) Well, the two-mile analysis is related to the urban cluster is around viewshed mapping or the visibility analysis. So, in the case of Deerfield, we identified all scenic resources in the Town of Deerfield, regardless of whether or not they had visibility. So, all of them were identified in a scenic resource
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table at the town level, and one of the columns in the table is potential visibility. So, those were the -- the visibility analysis showed up as having potential visibility, we would answer "yes". And those that had no visibility we would answer "no". So, our identification of scenic resources, particularly within three miles, was not limited to those within the visibility analysis. We went beyond.

Q So, can you see them from the Deerfield Fair Grounds or not?

A (Kimball) I believe there is viewshed mapping that it shows up as potential visibility in the Deerfield Fair Grounds. So, we have the possible visibility of "yes". The distance from the Project to the Deerfield Fair Grounds is 2.4 miles.

Q And, so, your analysis ended there? I thought that's what you just told Mr. Way? You didn't do any further analysis because of something related to two miles?
(Kimball) No. The Deerfield Fair Grounds were listed as having a low cultural value, in that
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they have primarily local significance. So, they were put into a category that were analyzed, maybe $I$ can -- it was part of our supplemental testimony that we submitted in April. I can look for it.

BY MR. WAY:
Q And, while you're looking at that, you mentioned "low cultural value" and "local significance". Can you explain that, because it's one of the largest fairs in the state?

A (DeWan) Well, we visited it. I believe there is a public meeting that was out there. We photographed it from a variety of different vantage points. We went to some rises within the Fair Ground, we went outside, we looked at the surrounding roads. And, typically, when we've done these, we've also done computer modeling to see how much it would actually be visible.

CHAIRMAN HONIGBERG: He's asking you about your use of the phrase "local significance" for the Deerfield Fair Grounds. WITNESS DeWAN: Okay.

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A (DeWan) Well, the fact that it was -- is rated as "low", didn't mean we stopped right there. We then went back and looked at it. And, as Jessica said, that the visibility of the structures at a distance of 2.4 miles was very, very small. And, while we could have done a photosimulation, it would have been another one of those situations where you would have to really strain to see it above the trees and other things in the immediate foreground.

BY MR. WAY:
Q Fair enough. What I'm trying to, and I think as the Chairman just alluded to, when we say "local significance", what does that mean?

A (DeWan) We use the term "local scenic value", which means that, if you divide the landscape and the resources that we looked at into high, medium, or low, the ones that are at the high end are the ones that have been identified as having usually a national significance or very high level statewide significance.

The ones that are at the low end, means they were primarily resources that are considered to be important at the local level.
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MR. WAY: All right. Thank you.
CHAIRMAN HONIGBERG: Now, Ms.
Weathersby.
MS. WEATHERSBY: Good morning.
WITNESS KIMBALL: Good morning.
WITNESS DeWAN: Good morning.
MS. WEATHERSBY: Most of my questions concern your methodology. So, I appreciate your indulgence, kind of we're going to go a little bit step-by-step. We'll cover some ground that was already covered, but hopefully I'll have some new questions about some of the steps along the way. I think, if $I$ can trust the process you used, I can trust your outcome. So, I just want to, --

WITNESS DeWAN: Okay.
MS. WEATHERSBY: -- you know, kind of make sure I understand the process that you use and why some of the decisions were made that were made.

WITNESS DeWAN: Sure.
BY MS. WEATHERSBY:
Q So, starting the very beginning, $I$ know you prepared an inventory of the sites within the
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Project area to get your list of scenic resources. Am I correct that the reason -- the reason that your number was, I think, 525 in the first go-round, and then another 275 or 80 supplemental, the reason that number differed so much from what Ms. Widell found for historic resources or what the other experts in this case have found was because of that public right of access issue, correct?

A (DeWan) That's one of the -- one of the principal reasons, but not the only reason. Would you like to elaborate?
(DeWan) Oh, gladly. And we've heard widely varying numbers. The historic people looked at, what, 1,200?
(Kimball) Yes, 1,300.
(DeWan) 1,300 sites. We know the Counsel for the Public, when they did their initial evaluation, had 18,933 resources that they felt should have been evaluated. We didn't feel that that met the test of what constitutes a "scenic resource", and under our interpretation of what a "scenic resource" is.

And, so, when we identified our first
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flush of 525 within -- generally, within a three-mile area, you know, we looked at those places that we felt really were significant either at the local level, at a statewide level, that were the sort of resources that needed to be evaluated in terms of looking at the potential impact of this Project.

Just to use a specific example, $I$ know one of the reasons that Counsel for the Public's numbers were so high is that they counted as a scenic -- potential scenic resource every road segment within ten miles. Well, to us, and, again, having to rely upon the rules that say "rides and drives and other tourism destinations", that says to us that every back road and every highway within the area is not a scenic resource. Those are not tourism destinations.

Q And that was true even if the town or city had designated it as a "scenic road"?

A (DeWan) Well, that's different. Because, see, those sort of resources had already achieved some recognition. And I think, to address the earlier question, we looked at places that had
some value that the community had already identified. And, so, the scenic roads that have been identified in many of the communities, certainly the scenic byways have already been identified. Those are on our list, and they certainly were also on Counsel for the Public's list.

Q So, if a town had designated all of their roads as "scenic roads", and it was within the area of potential impact, every one of those roads was listed?

A (Kimball) In our work, it was, correct.
Q Okay.
A (DeWan) That is not the case, though. There are some towns that identify just a few, some of them identify quite a few. There's many towns, maybe most of the towns, don't identify any of them.

Q Another big difference we've already discussed a lot was the public right of access, correct? (Dewan) That is correct.

And, if something was open to the public, but an admission fee was charged, you $I$ think had indicated that that was not included in your --
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as a scenic resource?
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A (DeWan) If we're talking about private property?

Q Correct.
A (DeWan) That's the case. Yes. Obviously, state parks, you know, need some revenue just for maintenance purposes.

Q What about an attraction such as Santa's Village, a major tourist attraction, private, you've got to pay your 30 bucks or whatever it is to get in? Amusement parks?

A (DeWan) Yes.
Q Rides? Alpine slides?
A (DeWan) Yes. And, again, we dealt with a lot those. And some of those are probably on Counsel for the Public's list, because they occurred on a list of recreation resources. But, from our perspective, if you're going to a place to enjoy the view, but someone who owns it says "you can't be here unless you pay a fee", that doesn't count.

Q Okay. Why did you include the Mountain View Grand as a scenic resource?

A (DeWan) There are many places -- well, there's
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a few places like that which $I$ think are iconic in the State of New Hampshire. These are places that are open to the public. Yes, you have to pay a fee if you want to enjoy some of the facilities. But it's a place where you can go, you can walk around, you can sit on the front porch without paying a fee. It's one of those -- it's, obviously, on the National Register of Historic Places. And it qualifies as a "scenic resource" under several of the categories.

But isn't it private property, and the owners of the Mountain View Grand could ask you to leave and not sit on the veranda?

A (DeWan) Yes. That's a subtlety that we really didn't get into. You know, we looked at the Mountain View Grand, and we felt that this is a place that extended their arms. They opened their arms to the public, they welcome the public. Could they ask people to leave? I suppose, if someone is being obnoxious and rude, they could probably ask somebody to leave. But $I$ don't know if that's the test.

Q Okay. Well, I mean, you said the test is the
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public right of access. You know, kind of this "unfettered access" concept. And, other than the cost of a night's stay, I'm not really sure how the Mountain View Grand differs so much from some other places where -- privately owned places that people go to spend the night that are within the area of potential effect.

But --
A (DeWan) Uh-huh. That's an interesting discussion. And we've debated it long and hard. And $I$ suppose the other way of looking at it is that the road in front of it is a public road. And, to the extent that that experience, that view is similar to what you see when you're up on the veranda there is somewhat equivalent. I don't think anybody is going to disagree that it's not a significant scenic resource.

Q And you didn't include churches, commercial establishments, none of those were included primarily because of that private right of access?

A (DeWan) For the most part, yes.
Q Okay. And then you started this filtering
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process to determine which ones -- which one of the places that you've identified as scenic resources would have a view of the Northern Pass Transmission line. And you indicated that one of the first tools you used was a computerized viewshed analysis, that produced viewshed maps where it showed that the transmission structures would be visible, worked in the vegetation component and the number of structures that could be potentially visible. Correct?

A (DeWan) That's correct.
Q And you didn't do any viewshed maps of the underground portion because there was no view of the structures?

A (Kimball) The visibility analysis takes into account the tops of the structures. So, there could be portions of the underground route that are located within ten miles of an aboveground structure. But it's still the structure tops that are the item that the computer is looking for. In the case of the underground section, there's no physical component for the computer to identify.
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Q Okay. If a property didn't have the view of the top of a structure, but had a very clear view of, say, the conductors. Would that be included?

A (Kimball) The computer doesn't have the ability to look at lines or polygons. In the visibility analysis, we have to rely on the point basis.

Q Okay. And, if the vegetation screening, for example, screened out the top of the structure, but three-quarters of the base of it was apparent, would that also have been screened out?

A (Kimball) Can't imagine a situation where that would be the case. But, technically speaking, if you could see the bottom of the structure, but not the top, $I$ can't imagine a situation where it would --

Q If you had the bow of a tree, you know, you can see that below where the branches are, but branches of a tree might screen the top from a particular viewpoint just for example. My question is, just in general, if you could see -- you couldn't see the top of the
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structure, but you could see another part of the structure, that $I^{\prime} m$ just trying to understand your sieve that got filtered out.

A (DeWan) Yes. Think of the viewshed map that we provided as initial -- an initial evaluation. It doesn't get down to the point of looking at individual trees or specific viewpoints. That gave us an overall pattern. So, while there may be places where you might see the bottom half of the structure, let's say, it's not going to show up on the viewshed maps. As we said earlier, it's based upon rasters that are --

A (Kimball) Five meters.
A (DeWan) -- five meters square, probably 18 feet square.

Okay. In the computer program that you used, I've heard you talk about "Intermap" and there was also talk about "Google Earth". And what -- at this stage, what was the program that assisted you in this?
(Kimball) So, the computer program, the software, is ESRI ArcMap. That's the software that allows the visibility analysis to be run.
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The data that was used was the Intermap data that was put into the computer software.

Q Okay. And, excuse me, ESRI?
A (Kimball) ESRI.
Q ESRI.
A (Kimball) E-S-R-I.
Q And is that a commercially available program?
A (Kimball) Yes. We pay for a license to use the software.

Okay. And there must be various assurances concerning its reliability and accuracy that you examined?

A (Kimball) Yes. This is the only software on the market that I'm aware of that does this type of mapping analysis. And accuracy really comes down to the data that you're use within it.

Q And, then, did you, for these I think there were 800 odd sites that you did this process for, did you save any of that analysis somewhere? Are there printouts or a data stick with -- that show that viewshed mapping on it? (Kimball) It's a live data source. So, we can, if you have the software, you can zoom in and
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out and see how it relates to the various mapped scenic resources. So, no PDFs that were saved, but it's something that's available.

Q You pulled up the site, you know, then you put in the data, then you looked at it, and then made a decision and then moved on. So, there's no -- there's no record?

A (Kimball) Right. There's no physical JPEG or PDF of every single site. Okay.
(Kimball) But we have data that, through the software, we can look at it at any time to go back to.

Q Okay.
A (DeWan) Yes. And we typically don't just look at a single point within a resource. We may start at a point in a parking lot, say, and then move physically in various points, just to get a sense about what it would do at various points within a resource.

Q So, you have the ability to move around within the view?

A (DeWan) Oh, yes.
Q And your little man there?
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A (DeWan) Yes.
Q Okay. You also stated that this filtering process included viewshed mapping and computer modeling and then some fieldwork. What is the difference between "viewshed mapping" and "computer modeling"?
(Kimball) So, "viewshed mapping" is the product of running the visibility analysis, where the computer tells you what points in the landscape you can see various structures.
"3-D modeling" is the act of actually putting yourself into the landscape and looking around in a $3-D$ model. We can use the ESRI software, a plug-in called "ArcScene", which is one way of doing that. Google Earth is another way of doing that, where you can actually get sort of the view of a person within the landscape, as opposed to just zooming out and looking at the viewshed map.

Okay. And that stage eliminated more than half of the scenic resources. I think it was 325 in
your initial review, and 261 of your
supplemental review. So, that process, that
first filter of the viewshed mapping/computer
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analysis, got rid of a half to two-thirds of the scenic resources?

A (Kimball) Yes. In addition to the viewshed mapping, the computer modeling, we also did fieldwork. So, for example, I think of the Catamount Trail in Bear Brook State Park. If you were to look at the viewshed map, it wouldn't show visibility, because it's a forested hilltop. So, the computer doesn't recognize it. Well, through our research and field investigations, we know there's a trail that leads to the top of a hill. It's likely there's going to be views from that. So, we actually would go and do field investigations as well. And, of course, we got up there, found there to be a view, did a photosimulation, included it as being visible. So, the work of filtering out scenic resources for potential visibility isn't limited to just the computer analysis and the modeling. There's also some fieldwork involved.

Okay. And, when you did the fieldwork and the computer modeling, I think we've talked about
you assumed that the vegetation that's there now is static, it's going to be there for the purposes of evaluation. It's not going to grow and it's not going to be cut. Is that correct?

A (DeWan) Well, we also assume that the leaves are going to fall where we had deciduous vegetation, which is one of the reasons we went back then and took the leaf-off photographs made at places from the same location.

But, yes. We did not assume any growth. We also did not assume that they would die or would be cut.

Q Okay. And you did your computer modeling in 2014-2015, correct?

A (Kimball) That sounds about right.
Q And the fieldwork done in that same time period?

A (Kimball) Yes.
Q And the data --
A (DeWan) Well, I'm sorry. We continued to do it. As we filed our supplemental prefiled testimony, we went back and reevaluated a lot of the work that we had done earlier, just for verification purposes.
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A (Kimball) Right.
Q Okay. And the intercept data that was used, though, was 2007-2008?
(Kimball) Right. And we don't know the exact date that the data was collected, because it was done through a variety of different flyovers. And it's compiled together by the company that manages the data. It could be a single dataset. But there's not one point in time that they went out and collected the data. It's done over a series of dates. Okay. And, when you did the investigations for your supplemental testimony, did you review the sites that you had done for your prefiled testimony or was it just the newly identified scenic resources?
(DeWan) We went back and looked at all those that we had rated as having low cultural value. We visited some of them in person, we looked at them, and did a computer model for them, just to verify what our initial reactions had been for these areas.

Okay. So, that was the low cultural value,
which is a step further down the sieve than
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we've gotten to in our discussion this morning?

A (DeWan) Yes.
Q But you didn't kind of review your initial analysis, since --

A (Kimball) For the --
Q -- for the originally identified scenic resources since that original sifting?
(Kimball) I think that's correct. We didn't go back to relook at visibility.

Okay. So, then, the next step was reviewing the scenic significance, where you're determining the cultural value, here's the cultural low, medium, high, correct? Is that the next step?
(DeWan) Scenic significance is a combination of the cultural value and the visual quality. And I think you've talked with Mr. Way about the planning documents and the research you've done to determine cultural value. And $I$ know there's a good explanation in your VIA. So, I'm not going to get into any more questions on that.

And then you assess the scenic qualities of the resource. And this is where you looked
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[WITNESS PANEL: DeWan|Kimball]
at land form, --
[Court reporter interruption.]
MS. WEATHERSBY: I'm sorry.

BY MS. WEATHERSBY:
Q -- land forms, vegetation patterns, water bodies, rock formations, development patterns. Is that -- that's correct?

A (DeWan) Those are some of the things we looked at. We also looked at human development, uniqueness, views, and so forth.

Q When you rated -- each scenic resource got a rating for each of those categories, correct?

A (DeWan) That's correct.
Q And they were able to be rated, not the human development, but the five that I mentioned, they were rated either zero, 1, 3, or 5. Why did you use that scale, and not a $1,2,3$, or some other --

A (DeWan) 1 through 5.
Q How do you arrive at that? You know, and -because you're trying to quantify something that's rather objective, and I sympathize with you, but, depending on what the number is, when you add and subtract things, you can come up
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with a different result. So, I'm just -- some of my questions go to why you used the scale you did. So, in this instance, you could -things could be rated zero, 1,3 , or 5 , why did you use that scale?

A (DeWan) I think the easy answer is to say this is the way that the Bureau of Land Management has developed their rating system. And this is a -- it is based upon it, it's not a one-to-one comparison. They did a few things there which are perhaps more applicable to the Southwestern part of the United States that we don't have here. But, for the most part, we felt that it was a reasonable way of looking at it.

And, by the way, we didn't assign just a 1, 3, or 5. There are many places where we said "well, you know, it's not quite a 1" or "it's not quite a 3", we would give it a number in between. We used --

Q So, you did. You could have given something a 2 or a 4?

A (DeWan) Yes. And I think that's one of the reasons we like the 1 to 5, as opposed to, you know, 1, 2, 3.
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Q Okay. And who did those ratings?
A (DeWan) We did it within the office. As I have said in the past, I was the one that arrived at the final determination, but it was based upon input by other people in the office.

And that was -- was that the same as the rating panel that was you and Ms. Kimball and David?

A (DeWan) David Truesdell.
Q Truesdell.
A (DeWan) That's correct.
Q Okay.
(DeWan) A lot of the evaluation is, you know, starts when you're in the field, and you're looking around, and you're aware of the land forms, the vegetation, and the water bodies. So, we take detailed notes, we take -- that's why we take so many photographs. So, when we start, you know, filling out these forms, we have a good body of information in front of us. It's not just based on upon a single snapshot. Q Okay. Do you feel as though a view is, under this rating system, a view is penalized if it doesn't have a water body?

A (DeWan) Well, water in the landscape, from all
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the research we've done, is always an indication of additional scenic quality. And, you know, some of the work that we were made aware of back in the $1970 s$ stated that, you know, water bodies is an indicator.

Now, does the landscape get "penalized"?
I don't know if that's the correct word to use. But, you know, landscape is -- we like to think that a landscape is made up of four basic elements: There's land forms; there is water forms; there's vegetation; and there's cultural modifications. And, if the land -- if the water bodies are not there, well, that's just an area that they don't gain points, in terms of the overall evaluation. But the fact that it's not there doesn't necessarily mean that you're not going to arrive at a high level of evaluation.

Q Okay.
A (DeWan) Water bodies is a way to get five points.

Q Right. And, in a mountainous area, you may have a gorgeous scenic -- my concern is, a gorgeous scenic view would get one rating, and
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then the other view, that has a swamp in the foreground, that's got some water, will get another five points. And it's really, you know, not that much different, but --

A (DeWan) I think the bottom line, though, is that both of them would end up with a score of, you know, "high", let's say.

Q And, then, you use these numerical ratings to decide the high, medium, or low quality -score for their scenic quality, correct?

A (DeWan) That's correct.
How did you decide the breaks for the high, medium, low? I mean, the scale goes from zero to 19 or more. How did you decide that zero to 11 would be "low", 12 to 18 "medium", and 19 or more "high"? (DeWan) These are pretty much the same breaks that we saw in the Bureau of Land Management breakout.

Q Pretty much or exactly?
A (DeWan) I don't recall. I think it's
consistent with the other work we've done in similar situations.

I must say, the other thing that we do,
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[WITNESS PANEL: DeWan|Kimball]
once we arrive at a score, you know, we look at it and say "is this really that high?" Or, "is it really just a medium?" And, so, we have the ability to make certain adjustments within it. And did you do that here?
(DeWan) I think there were a few places where we may have done that. I couldn't answer your question exactly.

Q Okay.
A (DeWan) But that's the way we have approached this.

MR. IACOPINO: Ms. Kimball, were you about to check if it was based exactly on the BLM standards? Or, it looked like you were about to check that. So, I wanted to --

WITNESS KIMBALL: Yes. I was
thinking to myself "do I have the BLM standards in front of me?" And $I$ don't believe that $I$ do, unless Mr. DeWan does?

WITNESS DeWAN: Not in front of me right now.

WITNESS KIMBALL: No. I don't think
I have it.
BY MS. WEATHERSBY:
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[WITNESS PANEL: DeWan|Kimball]

Q And these assessments for the scenic qualities, those were all done at key observation points?

A (DeWan) No. The key observation points are those specific places that we identify. There are many evaluations that we did that did not result in a photosimulation. Is that -- maybe I'm confused between the term "key observation point" and a place where we did the photosimulations from.

This is concerning your assessment of the scenic qualities.

A (DeWan) Yes.
Q And you two had the advantage of going out and seeing it, but David looked at the photosimulations as $I$ recall, is that correct? (DeWan) Well, he also did a lot of the fieldwork also. And, so, -So, I just want to know that those photos or the places that you relied on for your visual image of the resource were the best, the most scenic locations of that resource? (DeWan) I think that they probably qualify for what we understand to be the meaning of the "key observation point", yes.
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| Q | Okay. So, then you took those cultural values |
| :---: | :---: |
|  | and the scenic quality results, and everything |
|  | that had a "high" moved on, everything that had |
|  | at least two "mediums" moved on, and, in the |
|  | end, you got a scenic significance rating, |
|  | correct? |
| A | (DeWan) That's correct. |
| Q | And you are now down to, I think, 70 sites in |
|  | your original VIA. How many were added at |
|  | this -- how many more were added in your |
|  | supplemental VIA at this stage? Were there |
|  | any? |
| A | (Kimball) I believe in February there was an |
|  | additional 99 sites that were added. Right. |
|  | And, then, in the end, the analysis was |
|  | conducted for seven. |
| Q | So, seven, seven new sites? |
| A | (Kimball) There were seven new sites that |
|  | received individual visual impact assessments. |
| Q | Okay. And that was the next step then, right, |
|  | the potential visual impact analysis? So, each |
|  | of the sites got their -- an individual |
|  | assessment? |
| A | (DeWan) That's correct. |

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Q Okay. And that consisted of the visual effect and the viewer effect?

A (DeWan) That's correct.
Q And the visual effect is effect of the Project on the scenic resource and the viewer effect is the effect the Project will have on the public's continued use and enjoyment, correct?

A (DeWan) That's correct.
Q Okay. This is as much a test for me as it is for you, to make sure $I$ understand. And the potential visual impact was -- took a look at that scenic resource as a whole, and not just the most impacted portions of that resource. Is that correct?

A (DeWan) No. In many places, take Bear Brook State Park, you know, we did the resource as a whole, though we also looked at four different locations within it where the public would have an opportunity to experience the Project. Some of it fairly close up, some of it at quite a bit -- quite a distance.

Okay. And that visual effect, that was the rating panel of the two of you and David Truesdell?
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A (DeWan) Yes. Primarily, as I've said, this is, you know, based upon my experience, I was the one that was -- I relied upon them as input in that process. So, the evaluation was mine. Okay. And, other than a flash of them here last week, I believe, I haven't seen those rating sheets, and $I$ couldn't find them. I don't know if they were produced during a technical session. But, when they were flashed up, and we don't need to pull them up, but my look at them -- a quick look at that time at that time, for the Pemigewasset, David had a score a couple of zeros in it -- zeros in a couple locations.

Do you know if that's true? And, if so, why were his scores so different than your scores for that resource?

A (Kimball) If there was a zero, it meant that David didn't conduct the analysis for those locations.

Q So, then, it would have just been the average of - -

A (DeWan) The two of us discussing it.
Q So, the zero wasn't averaged in?
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A (DeWan) That was not an indication, in fact, it's physically impossible to get a zero, I think.

Okay. All right. I was concerning myself with zeros. So, David's zero was not averaged in? (Kimball) Correct.
(DeWan) That's correct.
Even though a rating sheet may have had his zero on it?
(Kimball) Correct.
Okay. Could you remind my what Mr. Truesdell's expertise is, as far as visual rating, visual rating analysis?

A (DeWan) David's background, he's a licensed landscape architect. He had worked for ten years for Sasaki Associates, a very well known landscape architecture planning firm in Massachusetts, before he decided to move to Maine. And he's been working with us for the last two and a half years.

Q Okay. Thank you. And when these ratings were done, did you each do them separately or did you sit around a table together and say "hey, let's give it a 3" or --
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A (DeWan) No, we did them separately. We then discussed them.

Q You mean discussed them after they were completed?

A (DeWan) After they were completed, yes.
Q Thank you?
CMSR. BAILEY: Could I ask a
follow-up?
MS. WEATHERSBY: Yes.
BY CMSR. BAILEY:
Q Under your cross-examination, didn't somebody point out a few places where David's zeroes were averaged in inadvertently?

A (Kimball) They may have been on that spreadsheet, by the nature of $I$ just created an average number for the three put together.

Q Uh-huh.
A (Kimball) But, when it came to the work that was presented in the report, it didn't necessarily reflect that number. So, it was always up to Mr. DeWan to make the final determination.

Q I don't get that. I mean, when you have a number that says high, medium, or low, based on
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your scoring criteria, if the number is calculated incorrectly, then you would give it possibly more likely the wrong high, medium, or low rating, wouldn't you?

A (Kimball) That may have been the case within the spreadsheet. But what's present in the report was a reflection of Mr. DeWan's analysis of the ratings. So, what the average came out to doesn't always equate to what's in the report.

Q So, are you saying that, if the analysis produced a number of 15 , you could have rated it as high or low?

A (DeWan) When we saw the number that was there, the numerical value that was based upon an average of our three determinations, I would then, as the principal author, would look at that and say "that equates to, you know, a medium", let's say. And, you know, based upon my experience having been there, and experience working in this field, you know, I would have to make a judgment whether or not that really is a true determination of the effect that it will have. So, there are a few places where I
[WITNESS PANEL: DeWan|Kimball]
adjusted it higher or lower.
Q So, then, it didn't really matter what the other two people thought?

A (DeWan) Oh, not at all. I relied very strongly on the observation power of these other two licensed professionals, who went with us, for the most part, on these field trips. I, obviously, have a lot more experience in this, but I really value their opinion. These are people who are trained as landscape architects. You know, they -- our stock and trade are looking at aesthetics, and how people react to aesthetics changes in the landscape.

Okay. So, did you go through every one of the 77 possible scenic resource scores, and look at them by the number that was produced, whether the zero was averaged in or not, and analyze in your own mind whether it should be high, medium or low?

A (DeWan) Yes.
Q Every one?
A (DeWan) Yes.
CMSR. BAILEY: Okay. Thank you.
MR. WAY: Just a quick question on
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that.
BY MR. WAY:
Q So, that was a thing that was puzzling to me on the rating sheet is how -- what was its utility, and, in the end, you just made a decision. You said you made changes -- you made some changes, Mr. DeWan, based upon what you saw. Those changes, did they focus upon those instances where the ratings were skewed because of two versus three reviewers?

A (DeWan) No. I think that $I$ evaluated -- I evaluated all 70 or 77 of them, and $I$ made that determination on every one of those. Whether or not the final evaluation, based upon the numbers, is really a reflection of how we saw the change.

All right. And we saw on the rating sheet, $I$ think there was two instances where, as we just talked about, where you averaged in three, and only two reviewers. Is it only two instances for the entire review process? Or are there more? Or have you gone back and looked at that?

A (Kimball) We haven't gone back to look at those
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rating panels.
Q Is that something you could do?

A (Kimball) Sure.
A (DeWan) We have that data.

MR. WAY: Thank you.
MS. WEATHERSBY: A couple more questions concerning the rating panel.

BY MS. WEATHERSBY:

Q First, are the rating sheets part of the record somewhere, do you know?

A (Kimball) I don't believe so. I know they were provided in discovery, but $I$ don't believe they were sulomitted as part of the record.

MR. IACOPINO: Do we know if they're part of any of the exhibits that have actually been formally tendered to the Committee?

MR. NEEDLEMAN: I don't believe they're part of any of our exhibits. I can't tell whether other parties made them part of theirs.

MR. IACOPINO: Counsel?
UNIDENTIFIED SPEAKER: I don't believe they're part of our exhibits either. [Court reporter interruption.]
[WITNESS PANEL: DeWan|Kimball]

MR. ASLIN: I don't believe that
there were any rating sheets in the Counsel for the Public exhibits either.

MR. IACOPINO: Does anybody else in the room believe that there are -- the rating sheets have actually been entered into the record?

MS. CRANE: It is my --
CHAIRMAN HONIGBERG: That's Ms.
Crane.
MS. CRANE: Sorry. Ms. Crane. It is my personal belief that there may be a few that some intervenors picked out and contributed to their exhibits. I'm afraid I can't recall which intervenor it was.

MR. IACOPINO: Thank you.
BY MS. WEATHERSBY:
Q Is it typical in the industry to use three raters, three people to do these rating forms?

A (DeWan) I don't think there's any rules.
There's no protocol that says "use raters" or "don't use raters". We very rarely use rating panels. That's just the way we have been doing our work over these years. I know that, when
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Counsel for the Public does peer -- Counsel for the Public's professional, Dr. Palmer, does peer review work for our wind power projects, it's pretty much his determination as to whether or not we provided accurate information. He goes about reviewing all the work we do and pretty much duplicates the work that we've done.

Q Okay. So, that's just sort of a different way of verifying the information, but one way that you used was using the rating panel. And I'm just wondering, when rating panels are used, are they typically three persons?

A (DeWan) Again, I don't know if there's a "typical".

Okay.
(DeWan) I know that some offices that I've seen typically will use three. I know -- I think I heard T.J. Boyle Associates may have used five or six people. I know that the National Park Service has just come out with guidelines that talks about using multiple people. They don't call them "rating panels", but they -- has a somewhat similar process.
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[WITNESS PANEL: DeWan|Kimball]

Q And you --
A (DeWan) Three -- excuse me. Three, when they are used, seems to be a fairly typical number. But $I$ don't think there's any absolutes. Okay. And is it typical that the reviewers are all employees of the company doing the assessment or is there typically a independent reviewer?

A (DeWan) Well, I know that, if the Company that's doing the work is a fairly small company, you know, they very often will bring in other qualified people to participate in the rating process. And $I$ know, again, the

National Park Service, they ask that raters are representative from a variety of different viewpoints, not just within the National Park Service.

Q And, so, when your office has done rating panels, are they typically all employees of your company?
(DeWan) Typically, people within our office, yes.

I'm just -- I'm recalling as well, from
Mr. Truesdell's, and I don't have the reports,
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obviously, but one that did come up, and I remembered his score being very different, I'm not talking about a zero, but I remember it was like a 25 or something, and $I$ can't refer you to exactly what I'm speaking of. But I remember in a couple instances, or at least one instance, Mr. Truesdell's scores were very different than yours and Ms. Kimball's. Am I remembering correctly?

A (DeWan) I do remember, again, I can't put my fingers on which one it was, where he came out with an outlier score. And that seemed to be a cause for questioning. Those are the sort of instances we would say -- we would talk among ourselves, and we didn't want to change his evaluation, but that was part of the reason that we went back and had discussions. You know, "why did you view it this way?" And, you know, we didn't argue, but we said "okay, that's good information to know why you saw it that way." But, you know, we all may have had a different number. And, so, that was taken into consideration, but it certainly wasn't part of an average. You know, we know that
there are different ways of looking at different things.

Q So, if one of your raters had a score that was, you know, fairly different than the other two, it wasn't necessarily, regardless of the score, it wasn't necessarily a strict average and you went with it. It was averaged, and then you came around and discussed. And, then, am I correct that you then, Mr. DeWan, made sort of the ultimate decision of what the appropriate score would be?

A (DeWan) That is correct. We saw those as data points.

All right. Okay. So, moving on to scale contrast, I'm curious, for most of the categories of rating, there was a scale of $1--$ zero, 1, 2, or 3. But, for scale contrast, the assigned values could be zero, 4, 8, and 12 . And I'm wondering why those were four times more important?

A (DeWan) Okay. You're probably looking at the Visual Effects Rating Form on our Page $M-14$, where we looked at "Landscape Compatibility", "Scale", and "Spacial Dominance". And, so, we
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broke "Landscape Compatibility" down into "Color", "Form", "Line", and "Texture". And the numbers that we assign there is a way of arriving at a determination of what the contrast would be for each of those four elements. And, so, we decided to use the zero, because, in some instances, for example, texture, once you get beyond a certain distance, you cannot tell whether or not -- you can't tell the texture of a particular element. Q Well, my question concerning -- it is concerning this Visual Effect Rating Form. And, in each of the categories for Landscape Capability, Spatial Dominance, you could have a score of zero, 1, 2 , or 3. But, for Scale Contrast, you could have a score of 12,8 , or 4, or zero. And I'm wondering why those are four times more important? (DeWan) Oh. I'm sorry. I misunderstood. Yes. The Landscape Capability, of course, equals 12, if you add up all the individual components. I think that's what we've tried to do for both Landscape Capability, Scale Contrast, and Spatial Dominance, to have the totals for those
[WITNESS PANEL: DeWan|Kimball]
three major categories end up at 12.
Q Okay. And is the way this is broken down, so that Landscape Capability, Scale Contrast, and Spatial Dominance are equally scored, is that standard? Or where does that come from? (DeWan) Well, this chart actually comes from a publication that Mr. Palmer co-authored quite a few year ago. It was one of the earlier -earliest textbooks on visual impact assessment. And it was also then repeated when we did some work for the Maine Department of Transportation for what was called the "Chapter 315 Regulation", which helps the DEP evaluate scenic impacts. We took that chart and teased out definitions to help people understand the differences in color, form, line, texture, and so forth. So, the descriptions that we have for each one of those categories is a way of reviewing what we're looking at and as a guide to assign a numerical value.

Q Okay. Can you tell me the difference between "scale contrast" and "spatial dominance"? They seem to be very similar concepts dealing with --
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A (DeWan) They are. They are. And it is a subtle -- let me read the definition, if $I$ might.

Q Well, I can read it. What are your words?
A (DeWan) "Scale contrast" talks about the relative size of a particular project.
"Spatial dominance" talks about how large it appears relative to other things in the landscape. I realize that there are perhaps some subtleties there. But it gets -- "spatial dominance" involves concepts such as whether or not it's perceived as dominant or prominent. It looks at things like the distance you are from a facility. It asks the question about what we call the "horizonal field of view", "how much of the landscape is it going to occupy?"

It also takes into account the possible interference with existing views. Whether or not the object that is being seen, that's being added, is going to interfere with a more striking part of the landscape behind it. Do you feel as though, in your analysis, the scale contrast is overweighted?
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A (DeWan) I don't believe so. Again, this is based upon the experience that we've had over the years when we've used this chart. And this is typical of the analysis that we've used. It certainly was the way we did the work for MPRP. And it's been used, $I$ think successfully, not just by ourselves, but anybody that's made an application before the Maine DEP.

Q All right. And, then, staying on this, this form here -- $I$ just lost it. The rating -Visual Rating Form, every scenic resource that had survived to this point got scores for each of these categories, and then it was assigned a total visual effect rating.

And my question concerns the breakdown of those, the scoring. A resource could be -have a total score of between 1 and 36 . And, yet, your categories of whether something is low, medium, or high are uneven scores. A "low" has more than -- or, almost half of the potential scores, 1 to 16 ; and then "medium" is 17 to 26 ; and 27 to 36 is "high". So, could you tell me how those score divisions were arrived at?
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A (DeWan) Our primary goal in doing this is trying to determine what is the cut-off point. What is the "high"? And, you know, the number that we assigned, $I$ think it was a 27, was based upon the work that we had seen in the past from Dr. Palmer, that had been published as part of the DEP. And we felt that that was a reasonable number, a reasonable cut-off point to use to help make that determination of what is going to be considered a "high" scenic resource. And, after all, it's part of the evaluation to identify places where there may be a high resource.

So, this isn't deciding whether it's a scenic resource. So, this is kind of the bottom line here, whether the Project causes this
fundamental change to the scenic resource. And your "high" category, you know, is only 9 points, whereas your "low" category is 16 points. So, is this rating sheet typical for the industry? And, if so, are these the score categories that are used? (DeWan) Well, the reason we use the high, medium, and low, because that's what the
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requirement was in the rules. I know that, when we looked at the example that's used in Maine, they broke it down a little bit more finely. But, in this particular case, we had to make that determination, you know, how do you break this down to arrive at the three categories, high, medium, or low.

And why did you decide on -- why is a "high" 27 to 36?
(DeWan) We felt that that was the cut-off point that was already established, again, as a severe rating, for at least in the Maine example, that was equivalent to what might be considered "high" in our evaluation, based upon our understanding of the rules in this situation.

Q Okay.
A (DeWan) Again, going back at the way we arrived at it, looking at the chart that we referred to a moment ago, that gives the criteria. And let me just go -- I won't go through the whole thing. But we felt that, looking at the way that you accumulated points, and describing the compatibility, the amount of contrast in the
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landscape, how it appears in terms of relative to the -- the scale relative to other elements in the landscape, and it's spatial dominance, the number of points, the 27 , to us, seemed like a reasonable place to break the division. Okay. Let's move on then. After that analysis was done, you then looked at the viewer effect, the effect the Project would have on the public's use and enjoyment, correct? (DeWan) That's correct.

And I think we've already had some discussions with Mr. Way and others concerning surveys and research and all of that. So, I'm not going to get into that anymore. When you were asked earlier how you -- I'm paraphrasing, but how you determined the nature and duration of the typical user's experience, you stated something to the effect that the typical user would be someone who actually uses the resource. But you didn't go any systematic investigation into the actual users of the resource, but you relied on your professional judgment and studies you've seen.

Am I paraphrasing you correctly?
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A (DeWan) Well, with the exception of actually going there and seeing how it was used, what sort of facilities were being provided, what sort of evidence there was of heavy use or light use or no use at all. Sure.
(DeWan) For example, standing on the dam at Franklin Falls, you know, we saw people continuously going by, on foot, on bicycle, on tour buses. We felt, you know, that's a place that gets a lot of use. You know, going to Franklin -- to the Forest -- I'm sorry, Forest Lake state Park, we saw a very large parking lot. Obviously, that was there for a reason. And, so, those indications give us a relative number. You know, we can't tell you exactly how many, but to determine whether or not there was a high, medium, or low number of use. I'm just going to skip ahead a little bit. Then, you went to the subarea analysis, and you concluded "no adverse impacts". And all of this -- am $I$ correct that all the scenic resources are rated "low" to "low medium" -well, actually, $I$ think it was "low", "low
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medium", or "medium" --
[Court reporter interruption.]
BY MS. WEATHERSBY:
"Low", "low medium", or "medium" in your final analysis. There were no "medium highs" or "highs"?

A (DeWan) That's correct, the overall impacts. MS. WEATHERSBY: Okay. I have maybe five minutes. Do you want me to finish up? Okay.

BY MS. WEATHERSBY:
Q I'm a little confused how mitigation worked into this. Did that go -- how you considered your mitigation techniques, did that go into the visual impact assessment at the final stage? Is that something that's yet to be determined? Where did your lead to mitigation measures work into your analysis?

A (DeWan) Well, for each one of the resource sites that we visited, we considered what was done, and we wrote a description under our overall visual impact assessment. And I think at that point we take into consideration what was done.
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You know, for example, the use of weathering steel monopoles. And we saw some examples the other day of the views from Nash Stream State Forest -- State Forest at elevated viewpoints. We knew that that was a major mitigation measure. We considered that in writing our overall conclusion. We knew that if there were another type of structure that were there, the galvanized steel lattice work structure, would have had a different effect. So, we felt that that mitigation measure was appropriate there, and that was how that got factored in.

Q So, mitigation wasn't sort of a separate numerical component. Mitigation was -- you assumed that the mitigation was in place in your visual analysis, and that's what the ratings were all based on. So, it was an integral assumption. Am $I$ correct? Is that a correct understanding?

A (DeWan) I think that's a really good way of looking at it, yes.

MS. WEATHERSBY: Okay. I think I'm going to stop there. Thank you very much.
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CHAIRMAN HONIGBERG: All right. We're going to take a ten-minute break. (Recess taken at 10:58 a.m. and the hearing resumed at 11:15 a.m)

CHAIRMAN HONIGBERG: Looks like we're ready to go.

Mr. Oldenburg, I understand you have a follow-up to some of Ms. Weathersby's questions.

MR. OLDENBURG: Thank you, Mr. Chairman.

BY MR. OLDENBURG:
Q Sort of going on the line of what Ms. Weathersby said about the process that you followed, you're one of the few panels that doesn't have like an outside agency reviewing your work. So, the construction panel, the DOT is reviewing their work; the environmental panel has DES and the EPA; and, you know, the cultural and history has SHPO and all these others.

So, you have the SEC rules, correct? There's not really a guideline for how to do
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this process.
A (DeWan) That is our starting point.
Q Okay. So, you have to fill up -- you had to basically create the process and procedure to meet those rules, based upon industry standards?

A (DeWan) Well, in many places, we had to interpret, because there weren't clear definitions about what we mean by certain terms that were used. So, yes, we used, I won't call it "industry standards", because there really aren't any standards, per se, but we use professional practice. How we've done it, what other professionals have done over the years. What seems to be, you know, how other professionals might evaluate a resource in this particular situation.

So, you led right into my question. The core of my question is, you had to interpret the rules. Was there any part of the rules that you just like "I don't know what they're talking about" or "how do I interpret this?"? Were there any part of those that were, you know, were lacking?
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Like I'll give you a specific example.
When I asked my questions about the construction, $I$ went to the rules and said "do they have to review construction for visual impact?" And it doesn't really state that, which $I$ don't know if $I$ expected it to be there. I sort of did. But was there anything like that that you thought were missing from the rules that you should have looked at?

A (DeWan) How long do you want to spend here today? There were a lot of places. Certainly, this issue of, you know, what constitutes "public access"? And, you know, we still have outstanding questions.

Someone talked before about the Fair Grounds. Is that considered to be a place of high scenic significance, because a lot of people come? Well, again, our way of looking at it is that that's a place of local scenic significance, it may draw a lot of people for three or four days at one period of the time, it's an event that draws people from across the area, but that doesn't make the resource itself any more scenic.
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Q And from your - oh, I'm sorry.
A (DeWan) Then, if you go down the whole listing of scenic resources, and, you know, there's some places -- some places it's very clear what's meant by it. There's other places that I think there's a lot of interpretation. Okay. And, so, I gather from that, in reading your testimony or your supplemental testimony of the differences and the concerns you had with like the Boyle report was, those different interpretations is how you -- there's a big disparity in the numbers of resources, I imagine, correct?

A (DeWan) That was one of the things that led us to that conclusion. You know, our reading of the paragraph that talks about scenic resources led us to believe that what we should be evaluating and concentrating on those places that are of high scenic significance.

Now, not that we disregard the other places, but we felt that, you know, those places that are iconic, that are places that attract people, because of their value from a cultural and scenic standpoint, are the ones
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[WITNESS PANEL: DeWan|Kimball]
perhaps that are most vulnerable, but, at the same time, most critical in our evaluation.

MR. OLDENBURG: All right. Thank
you. That's all I have.
CHAIRMAN HONIGBERG: Mr. Wright.
DIR. WRIGHT: Good morning, folks.

Welcome back to New Hampshire.
I'm an engineer. I can't help but
ask questions about modeling. It's inherent with what $I$ do professionally. So, I'm used to the concept of modeling. And $I$ want to understand the models that you used just a little bit better. And I'll try not to be really repetitive here.

BY DIR. WRIGHT:
Q For the viewshed analysis, you used ESRI ArcMap, correct/

A (Kimball) Correct. That was the software.
Q Okay. And, then, for the 3-D modeling, you used Google Earth Pro and another ESRI product?

A (Kimball) ArcScene.
Q ArcScene. Now, in the 3-D modeling, are those two models used in conjunction with each other or do different scenarios require a different
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model?
A (Kimball) The difference between Google Earth and ArcScene you mean?

Q Yes. Yes.
(Kimball) We would use ArcScene, for example, when we looked the Sahegenet Falls area yesterday, or on Friday, where the terrain in Google Earth might not be as clear at river crossings or at bridge abutments, the terrain can do sort of funky things on the edge conditions. So, we would go to the ArcScene data, because it would come out slightly differently, slightly more accurately, to take a look at certain spots.

Where, if you're on top of a mountaintop, and you're relying on much larger scale terrain for your alignment, mountains in the distance, that fine grain accuracy is not as important to those viewpoints. So, it's sort of dependent on the viewpoint and what we needed to look at.

Q Okay. So, there's some judgment on your part that goes into deciding which model you use?

A (Kimball) Right. And a lot of times we would use both.
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Q Oh.
A (Kimball) Just to take a look at it.
Q Okay.
A (Kimball) Yes. Just a matter of jumping back and forth between the programs.

Okay. And these are all tools that you have used in the past? These isn't the first time you've used these tools?

A (Kimball) Correct.
Q Okay. And does the old saying "quality data" -- "junk in/junk out". I'm assuming there's inputs that go into all these models?

A (Kimball) Yes.
Q And who does the QA/QC of that input data?
A (Kimball) Well, the data within the ArcScene program is this Intermap data that we've been describing.

Q Okay.
A (Kimball) And, when it comes to using Google Earth, these are situations where we would construct things in the landscape. So, if there's a treeline, for example, we're relying on the aerial photograph to shows us where those trees are going to be located, or, if
there's a building that might block the view, we're relying on the aerial photograph to show us where that exact building is and then we'll extrude it up.

As far as QA/QC goes, I think within our office, taking a look at the -- what is being used for the alignment for the different photosimulations, I might have done the work, and then showed it to Terry or somebody else in our office to sort of double check that those features that we're using to get accurate alignments makes sense and are on point.

Q And -- go ahead.
A (DeWan) The other thing that we have to keep in mind, this concept of visibility. And Mr. Oldenburg asked before about things that we had some questions about. This whole question about "what is visible?" You know, the computer will show that a structure may be visible at a distance of ten miles, which technically is the case. But, if you're out there, you can't see anything of that size beyond a distance of, say, three to five miles. And we saw this in Christine Lake. You may
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recall that we did a supplemental viewshed analysis. And we found that -- excuse me -there was a portion of Christine Lake that showed visibility. So, we went out on a boat, and we circled around, we took photographs; didn't see anything. It wasn't until after we went back and examined the photographs and enlarged them were we able to see that, on one particular viewpoint, you were able to see some existing structures. And that's the sort of trigger that caused the computer to say "oh, yeah, it's going to be visible in that location."

So, at a distance of ten miles, there's almost no way that you're going to be able to see these things. At a distance of five miles, I believe that Dr. Palmer referred to them as "possible smudges" in the landscape. It's really that the foreground and immediate midground is the area we're most concerned about.

Q Okay. I'm glad you brought up Christine Lake, because $I$ wanted to talk about -- a little bit about the cross-sectional modeling that you did
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there.
A (DeWan) Yes.
Q Now, as I read your report, there were three focal points or site points within the lake, is that correct, that you chose to do?

A (Kimball) There are three cross-sections that were done as a representative sample.

Okay. Now, I looked up on the Fish \& Game website, and Christine Lake is about just under a 200-acre lake. Is there a rule of thumb? How do you know if three is the right number to do on a lake of that size? What's the rule of thumb? How many focal points do you need to make sure you're getting a good representation of that resource?
(Kimball) Well, Terry might answer the question for that. But, as far as those three sections are concerned, those three sections don't represent the three viewpoints that we used. They were splices that were taken at three points over the lake to proposed structures. So, it wasn't the view particularly from those points. It was demonstrating that consistently across the lake the vegetation is high enough
so that you're not going to have a view over the terrain and the vegetation in place. So, to suggest that those three points were the only locations that we looked at, is not an accurate depiction of the work. Okay. Thank you. That's helpful to understand that.

A (DeWan) Yes. We looked at a lot of
cross-sections there. We also looked at the viewshed map.

Yes. Okay. The trees that you use in the models, you mentioned I believe you used LIDAR data to come up with the tree heights. And I assume you use that actual data in these models?
(Kimball) For the visibility analysis. Okay. Now, in your report, you also talk about a "40-foot tree wall". Under what scenario are you using the LIDAR data and what scenario are you using the 40 -foot tree wall data?

A (Kimball) So, an example would be -- so, we're using the LIDAR data when we're conducting our visibility assessment. So, the LIDAR data is what's getting put into the ESRI software to
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produce the potential visibility from the landscape. The tree wall situation would be, let's take a photosimulation, for example, at Dummer Pond, where we have us standing at a particular point in the landscape within the 3-D model, and we need to align our photograph to the landscape in the model. So, if we're using Google Earth to do our alignment, the terrain is in place, so we can see what the structures look like on the terrain. But we need to also represent what the vegetation may look like for our alignment. So, if we -- how we conduct our photosimulations is we have our 3-D model, and we have our photograph, and we're looking to align those two. And we're aligning those at various points. Sometimes we're able to align an existing structure to the model. And that's great, because we can see right where those fit in. Sometimes it's distant mountaintops, sometimes it's buildings, shorelines. So, there's -- we're always looking for the maximum number of alignment points to ensure that that snap between the $3-D$ model and the photograph are as accurate as
possible.
One of those vertical or horizontal alignment points are trees. And, so, we would assume a 40 -foot tree height and align the top of the tree -- the 40 -foot treeline to the top of the model.

Q Is it --
A (Kimball) Does that make sense?
Q It does.
A (Kimball) Okay.
Q Believe it or not.
(DeWan) Is your question "Why do we use 40 feet?"

Well, I'm kind of curious. The 40-foot, I mean, $I$ recognize, for a mature forest, 40-foot is probably a relatively low height. So, --

A (DeWan) It's a conservative average number. Okay.
(DeWan) And that's -- others use the term
"industry standard", that's what we have
typically been using over the last several years, as a way to represent the average tree height, knowing that --
[Court reporter interruption.]
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WITNESS DeWAN: I'm sorry. I didn't read my sign here.

CONTINUED BY THE WITNESS:
A (DeWan) -- over the last several years, that takes into account the variations in actual tree heights in the forest.

BY DIR. WRIGHT:
Q Is there ever a situation where 40 -foot would be an overestimate of the actual tree height in that particular situation?

A (Kimball) $I$ can think of one circumstance that we used significantly less, and that was from Coleman State Park and Little Diamond Pond. We have the data to represent what those tree heights are on the top of Sugar Hill, and right around the area where the conductor -- the Project is going to be visible. And we could see that the average tree height in that area was only eight feet. And, if you looked, it was because it had been recently been cut over. So, you look at the aerial photograph showing the new tree growth, and you look at the data, the aligned. So, when we extruded walls in the 3-D model to represent the vegetation in that
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particular area, we dropped it down significantly so that it was less. Okay. So, where there were real-life situations where you knew it was less than forty feet, that was one particular situation?

A (Kimball) Right.
Q How many other situations were like that?
A (Kimball) That's the only one that's really jumping out in my mind.

And, again, that represents conditions as of today, not -- I mean, somebody could go in, you just described a clear-cut, and somebody could go in and do a clear-cut tomorrow?

A (Kimball) Right. And the data is not, you know, the data that we're working off of isn't representative of what it looks like in 2017 or 2015, when we did the work. It's also relying on data that is maybe a few years old. So, we're trying to make it as accurate as possible within the confines of the program and the datasets that we have.

Okay. In your cross-sectional diagrams, and this was mentioned earlier, and it's noted on your chart, that you "exaggerated the $Y$ scale".

|  | Why do you do that? I'm trying to understand why you would do that? |
| :---: | :---: |
| A | (Kimball) So, if we were to represent that |
|  | cross-section in its true -- with its true |
|  | vertical exaggeration, it would either be so |
|  | big that it would go off of the page, or it |
|  | would be so small that those variations that |
|  | you can see in the cross-section would be |
|  | shrunken down significantly. |
|  | So, let's just say that it was a |
|  | cross-section over a mile. And your tree |
|  | height is 40 feet. You are not going to see, |
|  | in print, what 40 feet looks like in comparison |
|  | to a mile. So, it's very standard practice in |
|  | our profession to condense the section, so that |
|  | you can provide an accurate depiction of what |
|  | it looks like. It's all relative. So, as it |
|  | gets -- as the vertical gets -- |
| Q | I can understand what you're describing. You, |
|  | by doing that though, I think I know the answer |
|  | to this, if you did do it on a foot-to-foot |
|  | scale on both the $X$ and Y access, -- |
| A | (DeWan) Yes. |
| Q | -- it wouldn't change the outcome of your |

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analysis?
A (DeWan) Absolutely. Right.
Q Okay.
A (Johnson) No difference.
Q But, by doing it the way you do do it, you are changing the angle of the view line.

A (Kimball) The angle of --
Q It looks like it's a much steeper view line.
A (Kimball) Right. The angle of the view line does change.

A (DeWan) Yes. Yes.
A (Kimball) But the visibility, the effect of that is no difference. It would, if that section across Christine Lake, if it's over the course of a mile, you wouldn't see anything material in the section if it were.

Okay. All right. Thank you for explaining that. I couldn't quite understand why you would want to do that.

A couple of times the term "de minimus change" has been thrown around in these proceedings. And, to you, Mr. DeWan, what is a "de minimus change"?

A (DeWan) Again, I'll go back to my experience
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with MPRP, a somewhat similar project. There were many situations, after the Project got approved, where, you know, a series of structures had to be either relocated a few feet, let's say five to ten feet this way, or some of the structures, after the final engineering, had to be heightened by, say, three or four feet.

What was the absolute number? We went back and did a lot of reevaluation. I think there were six, if $I$ recall, additional submittals after the final project was -- after the Project was approved, where we had to go back and reevaluate it because of changes that were made. What was the cut-off point between what was considered to be de minimus or not? I think that was a determination that was made by the -- by Dawn Hallowell, who was the Project Manager for our DEP. She needed some information, because she felt that the effect or the change may have been large enough to have perhaps created a difference in our initial evaluation. And is there an actual number? I don't know.
[WITNESS PANEL: DeWan|Kimball]

Q It seems like, and I'll use for an example a three to five change in structure height. It seems to me a lot of factors would go into whether that would matter or not. If the line was two miles away from where $I$ am, three to five foot seems to be something lost on the horizon.

A (DeWan) Yes.
Q But, if you're at a quarter mile away, three to five foot or a slight change in location could seem to have a much bigger impact on the visibility analysis. Is that correct?
(DeWan) That may be the case. Again, it has to be judged upon an evaluation of what the resources are, the level of concern, how much of the structure is currently seen, and whether or not we're going from, you know, five feet which is currently visible, to one that where it's now ten feet currently visible, in other words, a 100 percent increase in visibility, as opposed going from 60 feet to 65 feet, which is going to be, you know, relatively de minimus. So, if there are final changes, design changes, will you go back and take a look at them or not
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at this point?
A (DeWan) If it's requested by Eversource to go back, yes, we will do that. I can't say at this point, though, what would constitute a trigger point for making that reevaluation. Okay. In drawing your conclusions, you considered the impact of the Project as a whole. And you -- where you determined there were visual impacts, your findings were based on that none of those visual impacts were rated as "high" under your methodology. Is that an accurate --

A (DeWan) That is correct, yes.
Q If, and this is a hypothetical, if there was one high impact at a high scenic resource, would that be unreasonable in your opinion?

A (DeWan) I guess the answer to that is it depends on what the impact would be, whether or not there were mitigation measures that could be applied to minimize that "high" rating. It would have to do with the sensitivity of the resource, number of people that looked at it, a variety of factors.

Q So, what if there are five high impacts at five
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|  | medium sites? |
| :---: | :---: |
| A (DeWan) |  |
| Q | On these hypotheticals? I'm trying to |
|  | understand where you get from reasonable to |
|  | unreasonable, in your mind? I mean, |
|  | ultimately, we, as a panel, need to decide |
|  | that. |
| A | (DeWan) Absolutely. And, you know, in making |
|  | that determination, we looked at the criteria, |
|  | 301.14. In making that determination, there |
|  | are seven different evaluation steps that we |
|  | are directed to look at, which are also the |
|  | rules for making a finding of an unreasonable |
|  | adverse effect. |
|  | DIR. WRIGHT: Okay. I think I'm all |
|  | set. |
|  | CHAIRMAN HONIGBERG: Commissioner |
|  | Bailey. |
|  | CMSR. BAILEY: Thank you, Mr. |
|  | Chairman. It's still morning. Good morning. |
|  | WITNESS KIMBALL: Hi. |
|  | WITNESS DeWAN: Good morning. |
| BY CMSR. BAILEY: |  |
| Q | Mr. DeWan, in response to some |

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cross-examination, you said that you "had a good understanding of what the public thinks the view impact will be." Do you remember that?

A (DeWan) I think that may have been a response when somebody asked us "how do we hear what the public had to do say, relative to the public testimony that we have heard and the letters that were written and so forth?"

Right. And you said you "had a good understanding of it". And, so, my question is what that understanding was based on?

A (DeWan) It's based upon, you know, being present at a dozen or so public hearings, hearing people come to the microphone and talk over a three or four hour period of time. By looking at the documentation that had been submitted to the record. Looking at websites that had been created that talk about the likely effect. I think those are the basic things that we've looked at.

And what was your conclusion about all those things? What do you think the public thinks of this?
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A (DeWan) I would say, in general, that the public has a negative impression about what this may do relative to aesthetics. Pretty strong negative impression? (DeWan) I would say it's pretty strong. I think that's -- I don't want to put a numerical value on that.

Q Okay. No.
A (DeWan) But, yes.
Q Okay. So, how did you take that into account in your analysis?
(DeWan) We took into account by factoring that in when we did our fieldwork, for example.

Q But you didn't talk to anybody when you did your fieldwork?

A (DeWan) We've testified to that. In fact, we did not. So, you know, we heard people say, you know, "it's going to be highly visible throughout coos County" or "in the Lakes district", for example. So, when we heard those sort of comments, you know, that was a signal to us "wow, these are" -- as every place, "is a very special place". And, so, when we went looking at places like that, you
know, we not just did look -- looked at the line itself, but we tried to get a sense of the overall landscape patterns in places that had been brought up when we heard people testify. Okay. Have you ever been in a canoe?
(DeWan) More than once, yes.
I wrote this down, because I've been in a canoe, and I couldn't believe you said it. But "somebody canoeing the river would be looking straight ahead." Is that what you do when you canoe?

A (DeWan) I don't know if that was the exact words I used. I think I said something to the effect that their views are going to be within a certain horizontal field of view. But, clearly, when people are canoeing, depending upon the type of water they're in, you know, they're either going to be looking straight ahead, because they're avoiding rocks and ripples, or they may be, you know, looking around like that [indicating].

Q Well, like in quiet water canoeing on rivers? (DeWan) Yes.

Would you agree, I mean, do you look at the
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edges, to see birds and tree formations, that kind of thing?

A (DeWan) Absolutely.
Q Okay.
A (DeWan) You know, your experience is the result of the contrast that you see in the landscape.

Q Okay. Did you review the photosimulations that T.J. Boyle did?

A (DeWan) Yes, we did.
Q And did you notice any that were -- that stood out as substantially different than yours?

A (DeWan) I'm trying to remember which ones, because $I$ know a lot of the ones that they used in their work were actually -- that I referenced in their work were actually our photosimulations. But they did some that were -- that had some differences.

Q But not big differences, would you say?
A (Kimball) Do you mean ones from the same vantage point?

Q Or, if they took it from a slightly different vantage point, but in the same general area? Do you think that your Visual Impact Assessment would have been different if you used their
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photosimulations?
A (DeWan) I don't believe so.
Q Okay. Can you tell me about how many projects that you've provided expert testimony on visual impact?

A (DeWan) When you say "expert testimony", do you mean before bodies like this or to produce a final Visual Impact Assessment?

Q Well, when would you produce a final Visual Impact Assessment, if not before a body like this? Why would you do that?
(DeWan) A lot of the times we do these -- well, for example, MPRP, that was not reviewed by the Board of Environmental Protection. We -- it surprised us, we did not have to go through that body, which is somewhat equivalent to the Site Evaluation Committee. We produced it for the Department of Environmental Protection. So, it was reviewed at a department level. Without any public input or formal process, is that what you're saying? (DeWan) Well, again, I don't want to get too deeply into it. But, in MPRP's case, we went through something like 80 or 90 different
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communities. And a few of those, the individual towns had a say as to whether or not this was an acceptable project or not. So, we did appear before several individual communities on the effects of that project on that community.

Q And, in MPRP, who was your client?
A (DeWan) Central Maine Power Company.
Q okay. So, how many would you say you've had to support through cross-examination?

A (DeWan) Probably a dozen or so over the last thirty years or so.

Q Okay. And, in any of those dozen, did you ever conclude that there was an unreasonable impact? (DeWan) We, on one occasion, and this did not go before -- well, let me explain the situation. We did a project for a large shipbuilder in Maine, and they are proposing a floating dry dock. And we determined that the presence of this new facility was going to block the view from an historic district in one of our major urban areas. And we felt that this really would have been considered unreasonable by the Department of Environmental
[WITNESS PANEL: DeWan|Kimball]

Protection. And, as a result of that, you know, we did certain things to mitigate the loss of this particular view.

Q And, in that case, you were working for the shipbuilder?

A (DeWan) We were. The project was ultimately built, and a park was built then to provide a new viewpoint for the people in that community, to compensate for the loss of the view that was created by the floating dry dock.

Okay. Did you -- have you ever worked for a client who was opposed to a project, because of visual impact?

A (DeWan) Oh, many times.
Q Can you give me an example?
(DeWan) Probably the best example -- well, there's been a few of them. One that we did in New York State several years ago. There was a proposal to put a coal-fired co-generation -- a coal-fired cement plant, rather, in a very scenic part of the Hudson River Valley. And we were working for an environmental organization called "Scenic Hudson". And we assembled a team of specialists that looked at the
situation. And we worked on it for about three years. Ultimately, the project was denied, partially on the basis of the effect that it may have on the -- on the cultural and scenic values of that particular community.

And, in advocating that position, did you use a similar analysis as you have here?
(DeWan) Somewhat similar, in that we did
extensive fieldwork. We did viewshed modeling, largely that was provided by the applicant. We didn't have to repeat it. We did a number of things that led us -- that led us to draw our conclusions. We did extensive photosimulations to show what it would look like from various locations. We testified before the New York Department of State. Did you -- did you do a numerical analysis like you have, that you went through Ms. Weathersby with?

A (DeWan) I don't recall that we did.
Q Okay.
MR. WAY: A quick follow-up please.
BY MR. WAY:
Q Did you use surveys?
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A (DeWan) Do you mean "intercept surveys"?
Q Yes.
A (DeWan) No, we did not. I'm sorry, let me take that back. There was one particular point where we wanted to determine the effect on --
[Court reporter interruption.]

## CONTINUED BY THE WITNESS:

A There was a -- at one point we decided to look at the effect on Olana, which is the home of Frederic Church. And I believe we may have used surveys at that point. I know we discussed it. I think that we did. MR. WAY: Thank you.

BY CMSR. BAILEY:
Q If you had found that there was an adverse impact on a high scenic resource in this case, would you have told us how it should be mitigated or would you -- or would your conclusion have been something else?

A (DeWan) It's hard to say, given the hypothetical. I think that, if we had found that, we would have talked with our client, and then worked on additional mitigation -- on mitigation measures or additional mitigation
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measures to see what could be done.
CMSR. BAILEY: Okay. Thank you.
CHAIRMAN HONIGBERG: Mr. Iacopino.
MR. IACOPINO: Thank you.
BY MR. IACOPINO:
Q I want to ask you questions about the whole bare-earth controversy. I know you spent a lot of time in your supplemental testimony explaining your position on it. But $I$ want to draw your attention to our Rule $301.05(b)(1)$. Which basically says that "The visual impact assessment shall contain the following components: Number (1) A description and map depicting the locations of the proposed facilities and all associated buildings", I'll skip a few words, "that would be visible from any scenic resources, based on both bare ground conditions using topographic screening only and with consideration of screening by vegetation or other factors." Am I correct to understand that you read that rule to include both topographic screening and vegetative screening and acted accordingly?

A (Kimball) We read that rule as the product that
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we were required to provide as a map of the proposed facility and all of its components that would be visible based on those conditions. So, to meet that rule, it would be providing a map that could potentially -involve components that could potentially be visible based on both of those conditions. Okay.

A (Kimball) Which we have done, in fact, we've shown the whole project, irregardless of whether or not the viewshed maps --

Okay. So, the map that you're talking about, are those the maps that were filed on April 17th, the visibility maps that were based on bare-earth?

A (Kimball) I believe that the maps submitted in October of 2015, that showed the Project located within each town, showed all project components that would be visible. We supplied the bare-earth viewshed map in February of 2017, as sort of an informational piece. Actually, you filed it in response to the criticisms from Counsel for the Public's experts I thought, if I remember correctly. It
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was actually April, $I$ think. But, getting back to the map that you're saying comports with this rule, which map in your VIA is that? (Kimball) Within each of the towns, we show the Project substations, we show all the components tied to the Project at a town scale.

Q And is that based on "bare ground conditions using topographic screening only"?

A (Kimball) Yes. It's a map depicting all locations of the proposed facility and associated components, regardless of whether or not they're visible in bare-earth viewshed.

Q Okay. And, then, the other question $I$ had, and I don't know, this is just a question about your discipline. Is there ever a situation where a visual impact assessment includes consideration of weather patterns and things like that? In other words, there may be areas in the country where, you know, ten miles is -may be visible on many days, and there may be other areas in the country where a ten-mile visibility is rarely ever achieved. Is there ever -- are these assessments ever done with those sorts of weather considerations in mind?
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A (DeWan) Yes, they are. One of the reasons, again, that the ten-mile number is inserted in here that may apply to this situation is that that's based upon a standard -- not a standard, but studies have been done that look at visibility of things like wind turbines and transmission structures that have been done in the western part of the United States. Robert Sullivan is a landscape architect and researcher at the Argonne National Laboratory, in Illinois, has written extensively about this phenomenon. And, you know, we can show you photographs, in some situations, where the weather patterns and the clarity of the air is such that you can make out structures at that distance.

But that has not been the case in our experience, and $I$ think that Counsel for the Public's expert's experience also. We don't see that happening around here.

Q And, when you say "around here", you mean New England?

A (DeWan) I should say -- clarify that to be New England, yes. Where we have hilly and
mountainous landscapes that are generally fully vegetated, with a lot of atmospheric disturbance that will cause light patterns to diffract when you see things at a distance. So, I guess then you would consider our rule requiring a radius of ten miles for a new transmission structure, if you're increasing the heights, to be conservative?

A (DeWan) I won't characterize it as one way or the other. I know that ten miles is a very adequate number for wind power projects. You know, the ones that we're dealing with these days are 600 feet in height. And that's a much different element than the structures that we're dealing with for this Project. But this is, as we understand it, sort of a one-size-fit-all regulation. Well, actually, the rule breaks it down. For wind energy systems, it does have a ten mile radius, but also for longer transmission lines that have increased height or a widened right-of-way, --

A (DeWan) Right.
Q -- they also require the ten miles.
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A (Dewan) That's correct.
Q And in a rural area.
A (DeWan) That's correct.
Q Which is most of this Project is -- requires that ten-mile visibility --

A (DeWan) Yes.
Q -- in that assessment?
A (DeWan) Yes.
Q Okay. So, you wouldn't characterize it as "conservative" or --

A (DeWan) I would say it's very conservative, if you're looking -- but, again, excuse me, we haven't seen any situations where the Project would cause a high level of impact at those distances.

Q And how does it compare with other -- and you've done some work in Maine, $I$ guess, and probably Vermont, if you do a lot of wind projects. How does it compare with other states' visibility assessments?

A (DeWan) Maine has an eight-mile requirement. That was a rule that was done back in 1998, when the average turbine was about 300 feet in height. And I know there's been some
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discussion about possibly going back and revisiting that.

Q Okay. What about anywhere else in New England that you're aware of what the rules require?

A (DeWan) I don't know of any other requirements for transmission lines. I know that other states that we've worked in have other numbers for looking at wind power projects.

MR. IACOPINO: All right. Thank you. CHAIRMAN HONIGBERG: I have no questions that haven't already been asked. Does anyone on the Committee have anything further? Ms. Weathersby.

MS. WEATHERSBY: Thank you. Just a real quick one line of questioning I thought of while sitting here that $I$ don't think anyone else had addressed.

BY MS. WEATHERSBY:
Q And that's nighttime lighting. Am I correct that the only towers that will be lit at night are those near the Concord Airport?

A (DeWan) That's correct.
Q Okay. And are those lights constantly red?
Are they blinking? What is the type of
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lighting there?
A (Kimball) I'll have to take a look at our report.

A (DeWan) I thought that they were -- well, they're similar to the lights that are out there right now. There's 15 structures that are currently lit. I believe we're adding 31 additional structures at the request of the FAA.

BY MR. WAY:
Q Is that 15 Eversource structures or 15 other structures?

A (DeWan) I don't know who owns the structures right now. They're transmission structures in the general vicinity of where the new ones are going to be --

Q But transmission structures?
A (DeWan) Yes.
Q Right.
A (Kimball) And $I$ don't have noted in our report whether they're flashing or whether they are solid red.

BY MS. WEATHERSBY:
Q And are they -- do you know if they are
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radar-activated or if they're constantly on, either the solid or flashing?

A (DeWan) I believe they would be constantly on, given the location relative to the airport, where you're going to be expecting a continuous flow of air traffic.

Q Okay. So, you know of no application that the Applicant submitted with the FCA to make them radar-activated? You don't think that's -that's not in the works?

A (DeWan) Not that $I$ know of. Yes.
MS. WEATHERSBY: Okay. Thank you. That's all $I$ have.

MR. IACOPINO: Mr. Needleman, we've had a request from the Committee. If you could please submit as an exhibit the -- I think there are 79, I may be wrong on the number, rating sheets that were used on the points that were eventually assessed by the panel.

MR. NEEDLEMAN: Yes.
MR. IACOPINO: Thanks.
MR. NEEDLEMAN: Yes. We'll provide
those.
CHAIRMAN HONIGBERG: Mr. Needleman,
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you have redirect for the panel?
MR. NEEDLEMAN: Yes. Thank you.

## REDIRECT EXAMINATION

BY MR. NEEDLEMAN:
Q Mr. DeWan and Ms. Kimball, a few minutes ago Ms. Weathersby asked you about the visual effects charts, and the instances, Mr. DeWan, where you may have made adjustments to the conclusions of the rating panel. Of the 77 visual effects determinations that were made, how many of those did you make some adjustment to?

A (Kimball) There were nine that came out as a slightly different rating than what the rating charts indicated.

Q And, of those nine, were there any circumstances where you made an adjustment from a "high" rating to a "medium" rating?

A (Kimball) No. All of the changes would be between medium or low.

Q And what was the breakdown? How many went from medium to low and how many went from low to medium?

A (Kimball) Of the nine, seven of them went from
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medium to low, and two of them went from low to medium.

Q I think Ms. Weathersby was also asking at one point about the rating charts and the breakpoints that were used with respect to the chart, that $I$ think you said was based on the one that is used in Maine. Do you recall that?

A (DeWan) I do.
Q And I think the questions revolved around how those breakpoints were selected. And I wanted you to clarify. You had said at one point you thought they were "reasonable". But are those breakpoints that you imported from those charts that others selected or are those breakpoints in terms of those numbers that you selected?

A (DeWan) Those breakpoints were really established by Dr. Palmer and Rick Smardon and John Felleman were the authors of the book that I referred to before. So, in effect, those have become sort of a standard in our profession looking at visual impacts. Moving on to some other questions, there's been a lot of discussion about how you interpreted scenic resources in this case. Most of those
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have now been put to rest by Committee questions. There is one place or two I wanted to go back to.

There were a number of occasions, including when Ms. Crane was asking you questions, where there was a discussion about whether your analysis occurred "from a scenic resource" as opposed to "of a scenic resource". For example, if one were standing on a public road, looking at a private historic resource that had no public access, with the transmission line located behind it, it sounded like the question was "did you evaluate that?" And my understanding was, according to your testimony, that you didn't.

At one point, Ms. Kimball, you volunteered to elaborate for Ms. Crane, and she didn't accept that. So, I want to go back and $I$ want to ask you to elaborate now on why, when you did your work, you focused on views from scenic resources.

A (Kimball) Sure. There are a number of places in the rules that ask us to look at it "from the scenic resource". And I'm just going to
pull up the rules here.
Q Actually, let me put an exhibit up, which is just a compilation that we worked on with you to prepare that shows some of these locations.

MR. NEEDLEMAN: I'm not going to call this an exhibit. It's just illustrative. It's just the rules.

BY MR. NEEDLEMAN:
Q But is this helpful to you?
A (Kimball) Yes. It is helpful.
All right. Could you go through that quickly. (Kimball) So, the first one at the top of the page is a definition of the "area of potential visual impact". And, so, we're to determine from which the -- "the geographic area from which the proposed facility would be visible". Jumping down further, the "key observation point", it is "from which the facility would be visible", those areas "that receive regular public use" from within the scenic resource. Moving down into $301.05(b)(1)$, the map that we provided showed the proposed facility, and those items that are required to be provided in the map are those that are visible
"from scenic resources", not "looking towards
scenic resources".
And I believe there are additional
sections. Here we go. So, "an identification
of all scenic resources within the area of
potential visual impact and a description of
those scenic resources from which the proposed
facility would be visible." So, again, it's
"from" those scenic resources.
Moving down into (6)c --
Q Let me --
A (Kimball) Oh.
Q Let me just stop you.
A (Kimball) Sure.
Q If those are illustrative of the point, I don't
think we need to go through it all.
A (Kimball) Okay.
Q Is it fair to say that there are other
references in the rule that you also relied
upon to do your work with respect to this
issue?
(Kimball) Yes. There are a number of locations
where this comes up.
Q There has been a question here about whether or
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not you properly excluded current use properties here when you did your work from the definition of "scenic resource", and I want to go back to that. The definition, and if we have it, if we could put it up, it's $102.45(d)$ We've seen it several times. But it talks about resources to which the public has a legal right of access that are "recreational trails, parks, or areas established, protected, or maintained in whole or in part with public funds". And I believe you testified that it was your view that current use resources were not covered by this, in particular you were focused on the portion about "established, protected, or maintained with public funds". Do you recall that?

A (Kimball) That's correct.
Q And, when you were being examined by Ms. Fillmore, she put a chart up, which I would like to revisit. I actually thought it was helpful for these purposes. And I want to ask you about that.

So, this was actually a hypothetical that she asked you about. And, in Ms. Fillmore's
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hypothetical, she started off positing that there was a town that needed to raise a certain amount of money, and so they taxed the land in town at a certain level to raise the money they needed to raise. Do you recall that?

A (Kimball) Yes.
Q And, then, she altered her hypothetical, so that, if there were properties in town that were subject to the current use law, they would pay less in taxes. So, consequently, other properties in town would presumably pay more in taxes. Do you recall that?

A (Kimball) That's correct.
Q So, in either circumstance, again, is it correct, based on your understanding, that this hypothetical town would raise the same amount of money in either circumstance?

A (Kimball) Yes. They achieved the $\$ 100,000$ in the same way.

So, if they're raising the same amount of money in either circumstance, is it your understanding that the other taxpayers in town end up paying more in tax so that the current use taxpayers would pay less in tax?
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A (Kimball) Yes.
Q And, in light of that understanding, how does that relate to your understanding of the SEC's rule about "established, protected, or maintained with public funds"?

A (Kimball) It's clear that there are no public funds that are being used to establish or protect those properties. It's money coming from other private property others. Did this hypothetical reinforce your conclusion?

A (Kimball) I think it did.
Q When Ms. Pacik was examining you, she asked about the Contoocook River and about White Park. And $I$ want to start with the Contoocook River. She pointed out that, in your assessment of this resource, you missed the fact that it had been a designated river, do you recall that?
(Kimball) Yes.
Q And that meant that you gave it a low cultural value, rather than a medium cultural value. Is that right?

A (Kimball) That's correct.
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Q Despite that initial error, during the course of your work here, $I$ think you've explained that you did go back and review all of the resources that you had initially designated as low cultural value, is that correct?

A (Kimball) Correct. That was submitted in April of 2017 .

So, I want to pull that up. It's Applicants' Exhibit 93. And why did you go back? What was it that caused you to go back, despite the fact that you screened these resources out, and look at them again and provide some level of evaluation?

A (DeWan) I think out of an abundance of caution, to make sure that these resources that had been rated as "low" didn't have any potential for a high visual impact. You know, looking at the Contoocook River, $I$ know that we've been there in person. We know that the area that had been identified as "potential visibility" was around one of the dams on the river, which is not a place that the public are even allowed to be. It's a danger situation. Most of the rest of the embankment, which is where one would -- one
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would be, or on the river, is heavily forested or built up in certain areas. So, the end result is that, when you're on the river, you're not going to be able to see anything beyond the immediate foreground. You're certainly not going to be able to see a series of structures at a distance of two miles. So, even though you didn't properly categorize the Contoocook River initially, and now understanding that it should have been characterized as a "medium" value, does that affect the conclusions that you drew in this table here?

A (DeWan) No. We still feel it has minimum potential for adverse effect at this distance.

Q White Park is also on this table. And Ms.
Pacik pointed out that you did not correctly identify that as a designated historic resource, is that right?

A (DeWan) That is correct.
Q And, so, consequently, you assigned a "low cultural value", rather than a "medium cultural value", is that right?

A (DeWan) That is correct.
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Q So, again, looking at this table, same question. You did go back during the course of your work and analyze White Park anyway. What did you find, and in light of now knowing that it should have been a medium value, does that change your conclusion?
(DeWan) It certainly did not change our conclusion. We also know there is the two-mile limitation that's found in the -- in the rules, which applies here. We also know that, at that distance of we say 2.9 miles, the structures would be minimally visible, and seen in the context of trees, buildings, light poles, and everything else that would affect a person's perception of the surrounding landscape. Earlier today you were asked as well about the Deerfield Fair Grounds, which you had also originally included as "low cultural value". Was that also revisited as part of the work that we just saw on that table? (DeWan) Yes, we did.

When Ms. Pacik was questioning you, she also asked you about Loudon Road, and I wanted to go back to that for a minute. When you did your
work, you didn't consider Loudon Road to be a scenic resource under the $S E C$ rules?

A (DeWan) That is correct.
Q Ms. Pacik showed you the viewpoint assessment conclusion of Loudon Road that was contained in the Final Environmental Impact Statement. Do you remember that?

A (DeWan) Yes.
Q Now, is it correct that, in addition to it being evaluated in the Final Environmental Impact Statement, there was a Technical Report that also accompanied that Final Environmental Impact Statement, which contained information on resources, including Loudon Road?

A (DeWan) That's correct.
Q And what I'd like to do then, we've made that Technical Report an exhibit already, it's Applicants' Exhibit 205. And what I'd like to do is pull that up, in particular, Page 118 of that Technical Report. And that Technical Report also characterizes Loudon Road, does it not?

A (DeWan) It certainly seems to capture it, yes.
Q And can you read the yellow highlighting that
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is the characterization of Loudon Road in that report?

A (DeWan) "The existing visual character is of low quality, without any special scenery interest or intrinsic character." Do you agree with that statement? (DeWan) I do.

Now, with respect to the broader Environmental Impact Statement, Ms. Pacik and others, I think including Mr. Judge, showed you various sections of the Final EIS around Concord. Do you remember that?

A (DeWan) I do.
Q And, in the Final EIS, T.J. Boyle's visual analysis looked at a wide range of specific viewpoints like Loudon Road, is that correct? (DeWan) That is correct.

And then it reached an overall conclusion about visual impacts across three geographic areas, is that right?

A (DeWan) That's right. North, central and south.

Okay. And Concord was in the "southern" area, as they designated it in the Final EIS, is that
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correct?

A (DeWan) That's my understanding, yes.
Q So, I want to call up Applicants' Exhibit 205, the page from the Final EIS that shows the conclusion that T.J. Boyle reached with respect to the southern area.

MR. NEEDLEMAN: And what $I$ would ask, Dawn, if you could highlight the "average scenic impact".

BY MR. NEEDLEMAN:
Q And can you explain, Mr. DeWan, your understanding of this portion that's been highlighted?

A (DeWan) I will try. They did a analysis of the existing conditions. They, on a scale of 1 to 5, they rated, for the southern section, the average scenic impact from the existing line to be "1.47", which, on their scale, was a rating of "very low to low". With the proposed conditions that are currently before the Committee, as Alternative (7) under the FEIS, the change in -- the net change from existing conditions was a "0.3", which means that the overall or the average scenic impact went from
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1.47 to 1.76. By their definition, the determination of the average scenic impact would remain at "very low to low".

Q Moving away from that, just a couple of more questions. When Mr. Baker was questioning you, he asked about the process that was used to create all of the documents here, which you've put out publicly and in front of the Committee. Do you remember that?

A (DeWan) Yes.
Q And Mr. Baker asked you, during the course of the development of your report, testimony, and other documents, whether you received comments from the Applicant and from the Applicants' legal team. Do you remember that?

A (DeWan) Yes.
What did you -- he didn't follow up on that, and $I$ wanted to follow up. When you received comments, what did you do with them?

A (DeWan) We reviewed them. We discussed them. Many of the comments were, you know, based upon typographical errors or, you know, changes to the wording. But they never affected our determination of scenic impact.
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Q Did you receive comments or questions about substantive portions of your report?

A (DeWan) we certainly didn't act on any changes as a result of the comments. You know, when you say "substantive", you know, they reviewed the entire document.

Well, let me ask it this way. Did you adopt every single comment you received?

A (DeWan) Those that pertained to grammatical changes, certainly we did.

Again, though, did you adopt every comment you received?

A (DeWan) I would say no.
Q Okay. Were you required to adopt any comments that you disagreed with?

A (DeWan) No.
So, is the total body of work that you've now created and presented to the public and the Committee your work and yours alone?

A (DeWan) Yes, it is.
Q And one final set of questions. When Mr. Judge was questioning you, he implied that, at the time he was asking you his questions, you didn't have up-to-date data about structure
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locations and dimensions at McKenna's Purchase. And, so, as a consequence, your view sims might not be accurate. Do you recall that?

A (DeWan) I recall that comment.
Q And you were fairly insistent that you believed at that time that you had up-to-date data. Why is that?

A (Kimball) The engineers have been very consistent in communicating with us when there was a change to a structure height or location. And, after Mr. Judge questioned you, did you actually have a chance to talk to the engineers about this issue?

A (Kimball) We did.
Q And what did you learn about the status of the structure data around McKenna's that you relied on to create your visual impact -- your view sims?

A (Kimball) That it remains unchanged since the construction of that photosimulation.

MR. NEEDLEMAN: Okay. Thank you. Nothing further.

CHAIRMAN HONIGBERG: All right. I
think that ends the questioning of this panel.
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We'll take our lunch break, and be back at 1:30. Commissioner Bailey and I have some business to do back at the Public Utilities Commission.

When we come back, we'll be hearing from Mr. Varney, correct?

MR. NEEDLEMAN: Yes.

CHAIRMAN HONIGBERG: All right. So, we are adjourned until 1:30.
(Lunch recess taken at 12:16
p.m. and concludes the Day 35

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