STATE OF NEW YORK
SUPREME COURT COUNTY OF ALBANY

In the Matter of the Application of
PROTECT THE ADIRONDACKS!, INC.,

Plaintiff-Petitioner,

-against- Index No. 2137-13

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION and ADIRONDACK PARK AGENCY,

Defendants-Respondents.

Volume XII

- N O N - J U R Y T R I A L -

BEFORE: HON. GERALD W. CONNOLLY
Acting Justice of the Supreme Court

Transcript of the Proceedings held on the record on March 28, 2017, at the Albany County Courthouse, Albany, New York.

APPEARANCES:

For the Plaintiff:

JOHN W. CAFFRY, ESQUIRE
CLAUDIA K. BRAYMER, ESQUIRE

For the Defendants:

LORETTA SIMON, ESQUIRE
MEREDITH G. LEE-CLARK, ESQUIRE
Assistant Attorneys General

(Defendants' Exhibits CU, CV, CX, CZ, DB, and DD marked for identification.)

THE COURT: All set, Counsel?

MS. LEE-CLARK: Yes, your Honor.

THE COURT: It's my understanding from the defense they wanted to take a witness out of order at this point to keep things moving and to meet that witness's schedule. Is that correct?

MS. LEE-CLARK: That's correct, your Honor. Actually, two witnesses.

THE COURT: Two witnesses.

You have no objection?

MR. CAFFRY: No objection, your Honor.

Your Honor, after we finished yesterday, the parties reached a stipulation that Plaintiff's Exhibit number 168 could be admitted. That was the DEC policy CP-38 Forest Preserve Roads, and I would like to resubmit that at this time.

THE COURT: Is that correct, Counsel?

MS. LEE-CLARK: That is correct.

THE COURT: That stipulation is accepted. And 168 you said?

MR. CAFFRY: Yes, your Honor.

THE COURT: 168 is received into evidence. You can

bring it up here to be marked if you haven't already.

MR. CAFFRY: It's already marked. It needs to be --

THE COURT: Marked into evidence.

(Plaintiff's Exhibit 168 received in evidence.)

THE COURT: All right. All set, Miss Lee-Clark?

MS. LEE-CLARK: Yes, your Honor.

We would like to call Joshua Clague to the stand.

THEREUPON,

JOSHUA CLAGUE,

called as a witness, having been first duly sworn, was examined and testified as follows:

DIRECT EXAMINATION

THE COURT: Sir, I'm Judge Connolly. Good morning. Just a couple of things before we begin.

First, we have a court reporter who is taking down verbatim everything that is said. Because of that I need you to make sure when you answer questions, you answer them out loud and in a form that she can take them down.

THE WITNESS: Okay.

THE COURT: Basically that means stay away from head nods yes or no and stay away from uh-huh and un-un,

as I understand they come out looking the same on the transcript.

If you hear an objection at any point, don't answer the question until I have ruled on it. If you are speaking already, stop speaking immediately when you hear the objection. I will rule on it and I will tell you whether you can answer. Okay?

THE WITNESS: Okay.

THE COURT: Finally, if Mr. Caffry or Miss Braymer -- who is it today? Is it you today, Mr. Caffry?

MR. CAFFRY: Yes, me, your Honor.

THE COURT: If Mr. Caffry says in a question I need a yes or no answer to this question, you have three possible answers, yes, no, and I can't answer that with a yes or no answer. Do not explain or go any further on any one of the three. Understood?

THE WITNESS: Yes.

THE COURT: Thank you.

Miss Lee-Clark, please go ahead.

MS. LEE-CLARK: Thank you, your Honor.

BY MS. LEE-CLARK:

Q Could you please state your full name for the record?

A Joshua Daniel Clague.

Q Mr. Clague, where are you employed?

A At the New York State Department of Environmental Conservation.

Q When did you begin working at DEC?

A In 2008.

Q What is your current title?

A Associate Natural Resources Planner.

Q Do you hold any degrees?

A Yes.

Q What are they?

A I have a Bachelor's in Horticulture from Oregon State University. Master's in Landscape Design with an emphasis in Ecological Planning from the Conway School, C-O-N-W-A-Y.

Q In your current position, what are your job responsibilities?

A My primary responsibility is the coordination and oversight of our Unit Management Plan for forest preserve Unit Management Plans for the Adirondack and Catskill Parks. That entails working with regional staff and other central office staff to develop the Unit Management Plans through, you know, just the basic writing of the UMPs, making sure they comply with department policies and procedures, and

guidance documents, and coordinating the review of those UMPs, both regionally and through our legal and executive teams within central office.

Q Do you do any mapping as part of your job?

A I do.

Q Can you explain that a little bit, within the context of Unit Management Plans?

A Sure. I occasionally create maps for the use in Unit Management Plans. I also oversee other staff who do the same thing. Or I work, not in a supervisory role, but work with regional staff who occasionally do the same type of mapping work and provide guidance on what needs to be in those maps.

Q You said you supervise people. How many people do you supervise?

A Two.

Q Are you familiar with the first cause of action in the Petition and Complaint?

A I am.

Q Are you familiar with Article XIV, Section 1, of the New York State Constitution, also known as the Forever Wild Clause?

A Yes.

Q Are you familiar with Class II community connector

trails?

A Yes.

Q I will call them Class II trails. What is your understanding of what those are?

A Class II trails are a type of snowmobile trail that's defined in our snowmobile management guidance that are designed, constructed, and maintained to accommodate long-distance travel between communities, as well as the equipment that is needed to maintain those trails to a safe standard.

Q Have you been involved in any planning or construction of Class II trails?

A I'm involved frequently at the Unit Management Planning level, yes.

Q Which ones have you been involved with? Which trails have you been involved with?

A Most recently, and I was probably most involved with the planning that was contained in what we call the community connector trail planning that has the Newcomb to Minerva Trail and the Newcomb to North Hudson Trails.

Q What was your role with those trails or any other Class II trails that you worked on?

A My role in this instance was I was actually the primary or lead author on the UMP Amendment. That document

was technically a UMP Amendment, but had the title of community connector trail plan. So I worked with the regional staff making sure that I understood the ground conditions enough to communicate in the plan what the department's desire was for connecting those communities. So I made sure I understood the ground conditions enough and then I also had an understanding of the policy and the guidance. That I kind of take those two and put it into writing the department's proposal.

Q When you are writing Unit Management Plans, not just the community connector trail plan, but other Unit Management Plans, or UMPs, do you coordinate or explain any sort of environmental review?

A Yes. All our of Unit Management Plans are subject to SEQR, State Environmental Quality Review.

So every UMP we have to fill out an environmental assessment form as prescribed by SEQR and either make a negative or positive declaration and follow SEQR throughout what the law requires us to.

So a plan, if it's a negative declaration, then we have to demonstrate why, either through the environmental assessment forms and through the writing of our Unit Management Plan.

If it's a positive declaration, then our Unit

Management Plans also are environmental impact statements and follow the SEQR law with the prescriptions for what that requires.

So that environmental review is contained in our UMPs.

Q Thank you. Mr. Clague, I've handed you what has been marked for identification as Defendants' Exhibit CK. Do you recognize this document?

A I do.

Q What is it?

A It's a map of the Adirondack Park that shows the Class II trails or community connector trails that are my understanding are subject or relevant to this lawsuit.

Q Did you make this map?

A I did.

Q When did you make it?

A I made it this month, March of 2017.

Q What sources did you use to create the map?

A The department maintains datasets for GIS or Geographic Information Systems. It's the digital mapping data and software that we use to make maps like this. So everything on here was derived from currently maintained sets the department maintains.

Q Does this map fairly and accurately depict the

current forest preserve lands and the locations of the community connector Class II trails at issue in this case?

MR. CAFFRY: Objection, your Honor. This calls for an expert opinion, both as to the methodology behind the map as to whether or not it's accurate. These are things that would require an expert opinion.

When we put in maps, we only put them in through experts. This witness was not on the state's witness list. He was listed as a fact witness and not an expert witness.

So we would object to this, him testifying as to this map on anything that would require an expert opinion.

THE COURT: Your objection is overruled.

Go ahead. Ask your next question.

I'm sorry. Answer the question. If you don't remember it, we can have it read back for you.

THE WITNESS: Please.

(Whereupon the Reporter read back the last question.)

A It does.

MS. LEE-CLARK: Your Honor, I would like to move to admit Defendants' Exhibit CK into evidence.

MR. CAFFRY: Same objection, your Honor.

THE COURT: The objection is overruled. CK is received into evidence.

(Defendants' Exhibit CK received in evidence.)

MS. LEE-CLARK: I'm all done with CK.

BY MS. LEE-CLARK:

Q Mr. Clague, did there come a time in this litigation when you were asked to create maps of trail closures related to Class II trails?

A Yes.

Q What information did you look at to create those maps?

A So, similar to Exhibit CK, the information is derived from existing datasets showing where all of our trails are. But to show where the closures are on those trails, the information is contained in UMPs or Unit Management Plans.

Q Thank you. Mr. Clague, I have handed you what has been marked for identification as Defendants' BU. Do you recognize this document?

A I do.

Q What is it?

A It's a map depicting the Moose River Plains Wild Forest, and specifically on there are trails, snowmobile

trails, that were identified in the 2011 Moose River Plains UMP, for both closure to snowmobiling, as well as a new trail that was proposed for construction.

Q Did you make it?

A I did.

Q What sources -- we have already been over this, but what sources did you use to make this map?

A The same as the previous exhibit, which are currently maintained DEC datasets that have the digital information. And then the actual information on the closures and proposals, all the proposals proposed actions were from the UMP.

Q When did you make this map?

A I made this map earlier this year. I believe it was last month.

MS. LEE-CLARK: Your Honor, I would like to move to admit Exhibit BU.

MR. CAFFRY: Can I have some voir dire, your Honor?

THE COURT: Certainly. Go right ahead.

VOIR DIRE EXAMINATION

BY MR. CAFFRY:

Q Mr. Clague, you said you made this map last month. Isn't it true that it's actually identical to the map you made that was submitted with your Affidavit in August of

2016, or is there a difference?

A No. I apologize. I was confusing it with the map previously. So there is a map from my Affidavit. Sorry for that.

Q And did you, yourself, visit any of the trails that are purportedly closed in the Moose River Plains Wild Forest?

A I have visited them previously.

Q Did you prior to preparing this map?

A Not immediately, no, or not in preparation for this map.

MR. CAFFRY: Your Honor, would this be an appropriate time to make my objection?

THE COURT: Sure.

MR. CAFFRY: I object for the same reason as I objected to the prior one. That this calls for expert testimony and he's not on the defendants' expert witness list.

In addition, this map is not just a map of trails. It contains additional information about whether or not the UMP's recommendations to close or not close trails have been implemented and he has not testified about that. And that's an entirely different matter than just creating the map from a dataset. There is no foundation for that. So I would object to its introduction.

THE COURT: Miss Lee-Clark?

MS. LEE-CLARK: Your Honor, we have another witness, because we are taking Mr. Clague out of order, we have another witness who is the forester for that area who will be testifying as to the actual closures. Mr. Clague is simply testifying that this map is based on trail closures in the UMP as they were effective with the UMP process, but the further development will be laid with Mr. DeSantis.

THE COURT: All right. The exhibit will be received into evidence subject to that connection. If that connection is not made or if you believe it has not been made, Mr. Caffry, you may reassert your objection, particularly with regard to any notations on -- what is the exhibit?

THE WITNESS: BU.

THE COURT: Again?

THE WITNESS: BU.

THE COURT: On BU.

But it is received by the Court subject to that connection.

(Defendants' Exhibit BU received in evidence.)

BY MS. LEE-CLARK:

Q Mr. Clague, looking still at Exhibit BU --

MS. LEE-CLARK: Your Honor, would you like a copy of this?

THE COURT: Sure.

Do you have a copy, Mr. Caffry?

MR. CAFFRY: Exhibit BU, yes, your Honor.

Q Mr. Clague, what do the red lines on BU indicate?

A Anything that has a red outline was identified in the Moose River Plains UMP to be closed to snowmobiling.

Q What do the yellow lines indicate?

A Everything in yellow was proposed to have snowmobile use added or it be constructed for snowmobiling.

Q Where did that information come from?

A It was in the Unit Management Plan, the 2011 Unit Management Plan.

Q How do you know these closures have been implemented?

A What I do know is that the Moose River Plains UMP effectively closed these trails upon its adoption.

Q Mr. Clague, I have handed you what is already in evidence as Plaintiff's Exhibit 68. Do you recognize this document?

A I do.

Q Did you make it?

A I did.

Q What is that document?

A It is a map of the Wilmington Wild Forest and it shows specifically on there trails related to snowmobiling and the proposals contained in the 2005 Wilmington Wild Forest UMP Amendment related to those trails, such as which trails were going to be opened or created for snowmobiling and which trails were to be closed to snowmobiling.

Q Did you make this map in the same manner and through the same process as you did for Exhibit BU?

A I did.

Q How do you know that the -- withdrawn. What do the yellow lines indicate on this map?

A The yellow trail or yellow lines indicate a trail that was to be opened or created for snowmobiling as proposed in the UMP.

Q What does the red line indicate?

A A section of trail that had been opened to snowmobiling that was proposed to be --

MR. CAFFRY: Objection. I believe this calls for hearsay, because unless he visited the trail himself, he has no personal knowledge of whether or not this trail was closed.

MS. LEE-CLARK: I'm getting to that, your Honor.

THE COURT: The objection is sustained.

You may start over again on that point.

BY MS. LEE-CLARK:

Q Mr. Clague, have you visited the trailhead for the section of trail proposed to be closed on this map?

A I did.

Q When did you visit it?

A Last week.

Q Did you take any photographs?

A I did.

Q So I have also handed you what has been marked as Defendants' Exhibit CT. Do you recognize those documents?

A They don't have a marking on them, but assuming it was what you handed me, then yes, I do recognize these.

Q It's on the back.

A Yes. Thank you. I do recognize it, yes.

Q What are they?

A They are three photographs that I took at or near that trailhead last week.

Q And where is that trailhead located?

A On Bonnieview Road in the Town of Wilmington.

Q Do these -- how many photographs are contained in that document?

A Three.

Q Do these three photographs fairly and accurately depict the scene at the Cooper Kill Trailhead at Bonnieview Road when you were there?

A They do.

MS. LEE-CLARK: Your Honor, I would move to admit CT into evidence.

MR. CAFFRY: Voir dire, your Honor?

THE COURT: Go ahead.

VOIR DIRE EXAMINATION

BY MR. CAFFRY:

Q On the third page, what's that line in the foreground of the picture?

A At the bottom?

Q At the bottom.

A That's the edge of the Bonnieview Road.

Q There is a black thing there. Do you see that?

A I do not.

Q Can you tell us what the sign says on the -- that's on the right side of the first page?

A Motorized vehicles prohibited.

MR. CAFFRY: Maybe my pictures aren't in the same order as yours.

MS. LEE-CLARK: Your Honor, may I just doublecheck?

THE COURT: Sure. Why don't you take that right down with you for a moment.

MS. LEE-CLARK: Thank you.

I apologize, your Honor.

THE COURT: That's all right.

VOIR DIRE CONTINUED

BY MR. CAFFRY:

Q Now that we have straightened out the pages so that everybody has the same pages in the same order, looking at the second page, do you see an object in the foreground at the bottom of the picture?

A Yes.

Q What is that?

A Those are my car keys.

Q And on the third page, do you see a sign on the right side standing on the post, appears to be just off the roadside there?

A Yes.

Q And what does that say?

A It says trail to Cooper Kill Pond, 2.2, and something about Franklin Falls Road on the bottom line with a distance that I don't recall. I believe it says 5.9.

MR. CAFFRY: No objection to this exhibit, your Honor.

THE COURT: CT is received into evidence.

(Defendants' Exhibit CT received in evidence.)

BY MS. LEE-CLARK:

Q Mr. Clague, before we leave Plaintiff's Exhibit 68, can you tell us what the red lines indicate again?

A The red line was a section of trail that was proposed in the 2005 UMP to be closed to snowmobiling.

Q And the yellow lines?

A Those lines represent trails that were either to be opened or constructed for the purpose of snowmobiling in that same UMP.

Q Mr. Clague, I have also handed you Defendants' Exhibit BW, which has been marked for identification. Do you recognize this document?

A I do.

Q What is it?

A The map depicting a portion of the Jessup River Wild Forest and two segments of trail related to snowmobiling that were identified in the 2010 Jessup River Wild Forest UMP Amendment, specifically a trail proposed to be constructed for snowmobiling, and a segment of trail proposed to be closed to snowmobiling.

Q Did you make this map?

A I did.

Q When did you make it?

A I believe it was sometime last year.

Q What were the sources for this map that you used to create this map?

A Everything on the map is derived from department maintained datasets and the specific information related to snowmobiling came from that 2010 UMP Amendment that I identified earlier.

Q Does this map fairly and accurately depict that information contained in those datasets?

A It does.

MS. LEE-CLARK: Your Honor, I move to admit Defendants' BW into evidence.

MR. CAFFRY: Two objections, your Honor.

One, again, he's not an expert. I will renew my objection, the same as the other perhaps.

Second, we have -- there is, again, this contains notations regarding whether or not a trail closure was implemented. We have heard no testimony from this witness or any other as to whether or not that actually occurred, therefore, any such notation is hearsay.

MS. LEE-CLARK: Your Honor, we will present evidence, again, from Jonathan DeSantis, who is the

forester also for that area, and he will provide firsthand evidence as to the closure's implementation.

THE COURT: All right. The objection is overruled. BW is received into evidence subject to further testimony being presented in support of the notations on the map. If it is not supported, then you -- excuse me. If such evidence is not presented, you may renew your objection, Mr. Caffry, at any point in the trial.

MR. CAFFRY: Thank you, your Honor.

(Defendants' Exhibit BW received in evidence.)

MS. LEE-CLARK: Those are all the questions I have, your Honor.

THE COURT: Okay.

Mr. Caffry, are you all set or do you need a moment?

MR. CAFFRY: Just one moment.

CROSS EXAMINATION

BY MR. CAFFRY:

Q Mr. Clague, referring you to Defendants' Exhibit CK, do you have that before you?

A Yes.

Q That's the map you made of the snowmobile trails? Or I will read from the top. Quote, Class II Trails Relevant

to Protect the Adirondacks! Inc. versus NY DEC APA.

A Yes.

Q And you testified that you made this this month, in March. Can you look at the bottom and see if that is correct?

A Yes.

Q My copy says February 2017. Is there a discrepancy in the exhibits again?

MR. CAFFRY: Your Honor, I was given a copy that is apparently different from the one that was admitted into evidence.

THE COURT: Why don't we make a copy of the one that was admitted into evidence right now. We will give it to you. If you need a few moments to look at it, you can have it. Okay?

MR. CAFFRY: Let me just take a moment.

THE COURT: However you want to do it. If you want the one that's in his hand that he's using, you are more than welcome to do it.

(Pause.)

THE COURT: Are you all set?

MR. CAFFRY: Yes, your Honor.

THE COURT: Please go ahead.

MR. CAFFRY: Just to clarify, the copy that

defendants' attorneys gave me yesterday, which was marked with a label that says Exhibit CK, is slightly different than the one they admitted and we have now resolved that.

THE COURT: Do you need some more time?

MR. CAFFRY: I'm ready.

THE COURT: Go ahead.

BY MR. CAFFRY:

Q So, Mr. Clague, in looking at this, it seems to show various trail segments as little black lines. Would that be fair to say?

A Yes.

Q And to your knowledge, these are all trails that are relevant to this case?

A Correct.

Q And looking on the upper right side, about the middle, do you see one that says Palmer Pond Bridge access?

A Correct.

Q And you put that on there?

A Yes.

Q Do you know how many trees were cut for the construction of that trail?

A I do not.

Q That's not within the work you do on the Unit

Management Plans?

A Not typically.

Q Regarding Exhibit BW, you said you based this exhibit on the Jessup River Wild Forest Unit Management Plan from 2010; is that correct?

A An amendment to the plan.

Q An amendment to the plan.

A To the 2010.

Q And that gave you the information you needed on trail closures to produce this map?

A The information on the body of the map itself, yes.

Q I have just handed you what has been marked as Defendants' Exhibit F, which is the Jessup River Wild Forest UMP Amendment of 2006 I believe. Is that correct?

A 2010.

Q 2010. Oh, I'm sorry, you are correct.

Yes or no. As shown by this Unit Management Plan, there is still numerous other snowmobile trails in that unit, even after the closure of the trail marked in red on your map?

A Yes.

Q Yes or no. So far only one trail has been closed since the construction of the Gilmantown Trail, which is marked in yellow on your map?

A I don't know.

Q Would you look at Exhibit F, pages 15 to 22?

A Yes.

Q And would it be fair to say that this is an eight-page long table showing snowmobile trails in that unit which are existing, proposed to be closed, proposed to be built, proposed to be reopened, in general an inventory of all snowmobile trails?

A That is correct.

Q And yes or no. The Unit Management Plan Amendment has authorized the reopening of some currently closed trails in the building of additional miles of trails?

THE COURT: Just so I'm clear, are we talking about as part of the Class II community connector trails as part of the trails you referenced in your question?

MR. CAFFRY: It's talking about the entire chart, your Honor. As we have seen, for instance, with the Moose River Plains, they have claimed -- the state has claimed offsets for closing all types of snowmobile trails, whether Class I or Class II. That's where this question is going.

THE COURT: Okay. I just wanted to know exactly what you were referencing in your question. You can go wherever you want. You don't need to tell me where

you're going, but I want you to be clear on the question. So if you can ask that question and just be clear for me on that one I would appreciate it.

BY MR. CAFFRY:

Q Mr. Clague, does the chart on pages 15 to 22 show trails of both Class I and Class II status?

A Yes.

Q And yes or no, it authorizes the reopening of some currently closed trails and the building of more miles of trails?

MS. LEE-CLARK: Objection.

THE COURT: What's the objection?

MS. LEE-CLARK: The objection is to relevance. If this is including Class I trails, those are not at issue in this case.

THE COURT: Overruled. But I'm going to sustain the objection as a compound question, because you asked about two different trails or two, functionally two different sets of questions.

So break them down so I understand in our transcript what we are speaking about, please.

MR. CAFFRY: Yes, your Honor.

THE COURT: But the objection generally is overruled.

Go ahead.

BY MR. CAFFRY:

Q Yes or no. The Unit Management Plan Amendment authorized the reopening of some trails that were currently closed as of the time this was adopted?

A I can't answer that.

Q Can you look at the document and see if it says that? For instance, the first one listed on page 15 and the second one on page 15?.

A Yes, it does authorize that.

Q And yes or no. The UMP Amendment authorized the building of more miles of trails in addition to the reopening of some closed trails?

A Yes.

Q Yes or no. On page 22 of the table in Exhibit F, at the very bottom, do you see a column third from the right that says net post 1972 gain or loss?

A Yes, I see it.

Q And the bottom row says adjusted snowmobile trail mileage?

A Yes.

Q What does it say in that box?

A Net gain of 2.4 miles.

Q So that's for the entire unit?

A Correct.

Q Turning now, I have also handed you Exhibit F, Defendants' Exhibit F, which is already in evidence. I'm sorry, E.

THE COURT: By the way, F was in evidence.

MR. CAFFRY: Yes. It was stipulated into evidence relatively early on.

THE COURT: Got it.

Now we are on E, and E is in evidence also?

MR. CAFFRY: E is also in evidence.

THE COURT: Thank you. Please go ahead.

BY MR. CAFFRY:

Q Do you have that in front of you, Exhibit E?

A Yes.

Q And is that the Unit Management Plan for the Wilmington Wild Forest dated October 2005?

A It is.

Q You testified that you used that document in preparing your exhibit, which has been admitted as Exhibit 68?

A I did.

Q So you are familiar with it?

A Yes.

Q Would you please look at page 68 of that Unit

Management Plan?

A Yes.

Q Do you have that there?

A I do.

Q And would it be fair to say that that's a table showing snowmobile trail mileage in the Wilmington Wild Forest?

A It is.

Q And do you see a column that says current trail mileage?

A Yes.

Q What does that say at the bottom for the total?

A Five point nine.

Q So that would have been the mileage as of 2005 when this plan was adopted?

A Yes.

THE COURT: What was the number again?

THE WITNESS: Five point nine.

THE COURT: Thank you.

BY MR. CAFFRY:

Q Below the table, so you see a paragraph that starts with the sentence, the preferred alternative is alternative 1D. Do you see that?

A I do.

Q Did I read it accurately?
A Yes.
Q If you go back to the table, do you see a column that's labeled at the top 1D?
A Yes.
Q Would it be your understanding that that would conform to the preferred alternative?
A To the best of my knowledge in terms of exact mileages I can't say, but yes.
Q But that's the trail, the new trail, the preferred alternative 1D, is the one depicted on your Exhibit 68; is that correct?
A That's my understanding.
Q So, under 1D in the table at the top of page 68, what does it give as the total mileage in the Wilmington Wild Forest after the construction of that trail?
A Six point two five miles.
Q And yes or no. That's an increase of .35 miles. Yes or no. That's an increase of .35 miles?
A Yes.
Q And would you turn to page 127 of Exhibit E?
A Okay.
Q And do you see at the top where it says Appendix 13, response to public comment, DEC response to public

comments received on the UMP for the Wilmington Wild Forest. Do you see that there?

A Yes.

Q Do you see a section below headed snowmobiling?

A I do.

Q Can you read for us the comment and the DEC response number 2?

A The comment reads, turn the Cooper Kill snowmobile trail into a cross-country ski trail.

The response reads. The preferred alternative in the plan is proposing to close the eastern 4 miles of the Cooper Kill Trail to snowmobiles. Nordic skiing and hiking will continue to be allowed on this trail system.

Q And is that the trail that's supposedly closed, the eastern 4 miles, is that the -- include the trailhead depicted in your photographs which were introduced as Exhibit CT?

A That is correct.

Q So even though this trail was closed to snowmobile use, it's still available for other uses?

A That is correct.

Q Mr. Clague, you discussed in your direct testimony that the Class II trails, and correct me if I'm paraphrasing inaccurately, are intended to accommodate long distance

travel and also the equipment to maintain the trails for safe travel. Is that basically what you said?

A Yes.

Q What type of equipment are you talking about?

MS. LEE-CLARK: Objection.

THE COURT: What's the objection?

MS. LEE-CLARK: It's outside the scope of this proceeding. The Article 78 about any grooming or such vehicles was dismissed about three years ago.

THE COURT: The Article 78?

MS. LEE-CLARK: The portion of, and causes of action two and three, which all dealt with grooming vehicles.

THE COURT: Right. But these -- so presumably Mr. Caffry is looking to explore this topic as relevant to the wild forest issue and the size of the trails.

MS. LEE-CLARK: I don't presume to know why he's asking this, your Honor.

THE COURT: Go ahead, Mr. Caffry.

MR. CAFFRY: Thank you, your Honor.

THE COURT: Well, hang on. Go ahead means I would like to hear more on the objection.

MR. CAFFRY: I'm sorry. Yes. Yes. First of all, I believe he opened the door to it, but it is within the

scope of direct.

Yes, it has to do with why the trails are as wide as they are, why the bridges are as large as they are, questions like that.

THE COURT: Don't they speak for themselves, the size of the trails and the size of the vehicles?

What's the relevance of what she's calling the Article 78 issue to the determination I have to make?

MR. CAFFRY: The impacts of the trails are related to the uses that are to be put to it, including the width of the trails and the size of the bridges is based in our, we believe, due to the size of the grooming machines used for the snowmobile trails.

THE COURT: I'm willing to accept that possibility, but I still don't see the relevance if we already know the size of the trails and the size of the bridges.

If it goes in some way to the credibility of the substantive issue of what those sizes are, I suppose I will allow it, but you need to tell me how it goes to that issue.

MR. CAFFRY: They are built larger than they need to be for, say, a snowmobile, because it's our belief, and that's why I'm asking him, because of the need to accommodate the grooming machines, which are a unique

feature of Class II trails, as opposed to Class I trails where those groomers are not allowed.

THE COURT: I think it's of extraordinarily limited relevance, but since it's a non-jury trial, I will allow it over your exception -- your objection.

MS. LEE-CLARK: May I be briefly heard on what Mr. Caffry just stated?

THE COURT: I have heard enough. Thank you. You have your exception.

Go ahead.

Do you want to hear the question again?

THE WITNESS: I would, please.

(Whereupon the Reporter read back the last question.)

A It's my understanding that the snowmobile guidance that we follow for the construction and maintenance of these trails allows for grooming equipment that we call tracked.

BY MR. CAFFRY:

Q And those are only allowed on Class II trails, isn't that correct?

A That's my understanding.

Q And do you have knowledge of the size, the width, the weight of these machines?

MS. LEE-CLARK: I'm renewing my objection, your

Honor. Use is not an issue.

THE COURT: Sustained.

BY MR. CAFFRY:

Q Do you have any knowledge of the weight of these machines?

MS. LEE-CLARK: Objection.

MR. CAFFRY: Goes to the question of the bridges, your Honor.

THE COURT: The objection is sustained.

Q Are you aware of other machinery used to -- withdrawn.

Are you aware of whether or not the applicable guidances or policies allow other types of machinery to be used for maintenance of the trails?

MS. LEE-CLARK: Objection.

THE COURT: Overruled. You may answer.

A I'm aware that snowmobiles pulling a drag are also allowed.

Q What about all-terrain vehicles?

MS. LEE-CLARK: Objection.

THE COURT: Overruled. You may answer.

A It's my understanding that those are not allowed.

Q What about motor vehicles, trucks and the like?

MS. LEE-CLARK: Objection.

THE COURT: Overruled.

A Not on Class II trails. Only on roads.

MR. CAFFRY: Can I have one moment, your Honor? I think I'm almost done.

THE COURT: Yes.

(Pause.)

MR. CAFFRY: No further questions.

THE COURT: Any redirect?

MS. LEE-CLARK: Yes, your Honor.

THE COURT: Go ahead.

REDIRECT EXAMINATION

BY MS. LEE-CLARK:

Q Mr. Clague, to your knowledge, have all of the trail closures listed in the Wilmington UMP, were they effective as of the date of that UMP approval?

MR. CAFFRY: Objection, hearsay. Unless he's visited it himself at that time.

THE COURT: Overruled. I think it falls within the scope of his responsibilities as he set them forth already.

You may answer if you can.

MS. LEE-CLARK: And you can look in the UMP if you want.

THE COURT: Which UMP?

MS. LEE-CLARK: The Wilmington.

A I don't know the answer to that. I'm not sure if the intent was for it to be closed immediately or if other work had to be done, unlike the Moose River Plains UMP.

Q So in the Moose River Plains UMP, when did those trail closures become effective?

A Upon adoption of the UMP.

Q And is that the practice, the general practice in DEC for other UMPs?

A It is the practice when we are not constructing a replacement trail. For example, there are times when we have proposed trails that are supposed to be better in terms of their construction and their location and to replace an existing trail. And when that's the case we don't close the existing trail until the new one is completed. But otherwise, yes, it is our intent for those trails to be closed effective upon the adoption of the UMPs.

Q For the Wilmington Trail, looking at Plaintiff's Exhibit 68, I believe it is, are you aware if that was the case in this, for these trails indicated?

MR. CAFFRY: Objection. Asked and answered.

THE COURT: That is my recollection, Counsel. I will allow it though.

You may answer.

A It is my understanding that that was the case.

Q For Jessup River, and this was the Jessup River UMP, did that have a similar closing mechanism as the Moose River Plains UMP?

A That's correct. The Dunning Pond Trail was, I believe it was the intent for it to be closed upon adoption of the UMP.

Q Can you also look again at Exhibit 68?

A Yes.

Q Can you please read the full title of the map?

A A Portion of the Wilmington Wild Forest.

Q Thank you. And can you please look at Exhibit BW?

A Yes.

Q Can you please read the full title of that map?

A A Portion of the Jessup River Wild Forest.

Q So on both of these maps there may be other trails in this UMP that are not included on these maps potentially?

A Definitely in the Jessup River Wild Forest. I don't believe there are any other snowmobile trails in Wilmington that aren't depicted on here.

MS. LEE-CLARK: That's all I have, your Honor.

THE COURT: Mr. Caffry, any recross based on the redirect?

MR. CAFFRY: Yes. I would just like a moment to

look at the Exhibit F.

(Pause.)

RECROSS EXAMINATION

BY MR. CAFFRY:

Q Mr. Clague, would you please look at Exhibit F? Could you look at page 32?

A Okay.

Q Do you see where it discusses the potential closing of the Piseco to Perkins Trail?

A Yes.

Q The 7.5 mile section?

A Yes.

Q Yes or no. This will only be closed, according to the UMP, when the Fish Mountain Trail is built. Do you see that?

A I do.

Q Has the Fish Mountain Trail been built?

A I don't believe so.

Q Likewise, regarding the closure of the 3.2 mile section of the Fawn Lake Trail right below there, again, that's subject to construction of the Fish Mountain Trail, isn't it?

A Correct.

Q So, those, just for instance, those two trail

segments are not closed because that new trail, Fish Mountain Trail, has not been built, correct?

A I can't say whether or not they have been closed.

Q Below there do you see a section on trails that are no longer used or receive only minimal public use?

MS. LEE-CLARK: Objection.

THE COURT: What's the objection?

MS. LEE-CLARK: It's outside the scope of redirect.

THE COURT: Sustained.

MR. CAFFRY: No further questions, your Honor.

THE COURT: Anything else, Miss Lee-Clark?

MS. LEE-CLARK: No, your Honor.

THE COURT: Thank you, sir. You may step down.

All set, Miss Lee-Clark?

MS. LEE-CLARK: Your Honor, can we have a minute to shuffle ourselves?

THE COURT: Yes. You can have five minutes.

MS. LEE-CLARK: Thank you.

(Whereupon a recess was taken from 10:43 a.m. to 10:49 a.m.)

THE COURT: All set, Counsel?

MS. SIMON: Nearly. One more minute.

THE COURT: Okay.

MS. SIMON: I'm ready, your Honor.

THE COURT: All right. Go ahead.

MS. SIMON: Your Honor, before calling our expert, Dr. Howard, to the stand, I would like to at this time admit into evidence two certified documents, certified by the United States Department of Agriculture. They are marked for identification as Defendants' Exhibits CU and DD.

THE COURT: Mr. Caffry.

MS. BRAYMER: Your Honor, I --

THE COURT: I'm sorry, Miss Braymer.

MS. BRAYMER: That's okay.

THE COURT: Go ahead.

MS. BRAYMER: I guess my objection is that at this point is that I don't know what the relevancy of these documents is and I would like it to be introduced at an appropriate time during the witness's testimony.

THE COURT: Your objection is sustained at this point.

Go ahead. Call your next witness.

MS. SIMON: Thank you. Dr. Howard, please come to the stand.

THEREUPON,

TIMOTHY G. HOWARD,

called as a witness, having been first duly sworn, was examined and

testified as follows:

DIRECT EXAMINATION

THE COURT: Good morning, Dr. Howard.

THE WITNESS: Good morning.

THE COURT: I'm Judge Connolly. Were you here in the courtroom earlier when I gave my instructions to Mr. Clague?

THE WITNESS: I was.

THE COURT: You heard them?

THE WITNESS: Yes.

THE COURT: You can abide by them?

THE WITNESS: Yes.

THE COURT: Bring that microphone over in front of you and we will get started.

Go ahead, Miss Simon.

BY MS. SIMON:

Q Good morning, Dr. Howard. Would you please state your full name?

A My name is Timothy Gramlich Howard.

Q What is your place of employment?

A I work for the New York State Natural Heritage Program.

Q What is your title?

A Director of Science.

Q Dr. Howard, do you hold an undergraduate degree?
A Yes.
Q From what institution?
A From Middlebury College in Vermont.
Q What was the degree you received?
A That was a BA in Biology.
Q And do you have any further degrees?
A Yes. I have a Master's and a PhD, both from the University of Michigan.
Q What was your Master's Degree in?
A Biology.
Q And your PhD?
A Biology.
Q And what was your primary focus, area of focus for your PhD?
A This was in the field of plant ecology and I studied plant competition.
Q What is plant competition?
A Specifically, my project focused on the relationship between abundance, like some plants are more common than others, and their competitive abilities. So some species might be more competitive than others, depending on how you measure it. And my question was how was that competitive ability related to abundance in the field.

Q Thank you. Are you a member of any professional associations or organizations?

A Yes.

Q What are they?

A The Ecological Society of America and one or two others I can't remember right now.

Q Okay. Could you briefly summarize the areas of your expertise?

A Areas of my expertise?

Q Yes.

A So, as I mentioned, my training was in community ecology, plant community ecology. And since then as employment I have branched out into landscape ecology types of questions and modeling and other broad forest ecology type subjects.

THE COURT: I didn't hear the end of that. Other broad forest --

THE WITNESS: Forest ecology topics.

BY MS. SIMON:

Q Does your experience include any training or research or education in northern forests?

A Yes.

Q Have you authored any peer reviewed articles?

A I have. Oh, eight to ten.

Q And without telling us all of them, what are some of the topics?

A They range from plant competition, which was my PhD work, all the way to more recently my most recent one was related to prioritizing the landscapes for the balance conservation priorities, as well as wind energy generation priorities. So that was the most recent paper.

Q Have you authored other reports or articles?

A Yes, many, many reports in my position with the Heritage Program.

Q What were some of those topics as they relate to forests?

A Everything from inventories in the northern forest, to assessments, landscape assessments, and on-the-ground assessments of landscapes in New York State.

Q Have you held any teaching positions?

A Yes. I taught a winter term course at Middlebury College when I was in graduate school. I taught an ecology class at SUNY Stony Brook after finishing grad school.

Q Do you have any other teaching positions or have you held any others?

A I have done guest lectures in classes and while I was in graduate school I had held teaching assistantship positions that included teaching.

Q Dr. Howard, when did you start working with the New York Natural Heritage Program?

A In the fall of, I believe it was 2000. So over 15 years ago.

Q What is the Natural Heritage Program?

A The New York Natural Heritage Program is a -- we are part of a nonprofit. We work very, very closely with the Department of Environmental Conservation, but not all of our funding, nor all of our projects are from or with the Department of Environmental Conservation.

So we are a group of 29 -- 27 to 30 staff and we have botanists. We have ecologists. We have zoologists and database people. And our mission is to be the science behind conservation in New York State, and so we offer science expertise in a variety of different fields as well.

Q What does your work involve there?

A Well, I came on as an ecologist, so I did a lot of field ecology work, assessing forests, identifying forests, identifying the types of communities of natural communities in the landscape. And I have since branched out to landscape ecology, mapping. I have done a lot of Geographic Information Systems mapping and I have done a fair amount of those broader scale mapping analysis and assessments.

Q Does your work include research?

A Yes.

Q Field work?

A Yes.

Q And are you responsible for any specific programs as director of science?

A Well, I oversee the -- my direct reports are the head of the ecology program and the head of the zoology program, and the head of the botany program, and I actually oversee a landscape ecologist as well.

Q Could you give us an example of research work that you have done with the Natural Heritage Program?

A Well, that last publication I mentioned was assessing landscape priorities or balancing landscape priorities. It was actually a return-on-investment assessment of the balance between conservation priorities and wind farms and wind development priorities.

I have also done research related to questions about forest health and forest age, and what kinds of things are going on in different places.

Q Have you worked on any projects outside of New York State?

A Yes. Sometimes we do work outside of the state. Last summer I actually did some work just over the border in New Jersey.

Q In terms of field work that you have done, what type of field work have you done for Natural Heritage?

A Usually it's botanical field work and ecological field work. And by botanical I mean out looking for rare plants. So we are out looking for plants, what's there, what's our interest. A primary interest in the Heritage Program are the threatened and endangered and rare species of the state. So we spend a lot of time surveying for those rare species.

On the ecological side are our primary interest is what are the types of natural communities out there, what types of forests, what types of bogs, what types of ponds, what types of fields, and then what is their condition. And so condition is related to the external stressors upon our natural communities, and the size, condition, and landscape context are the three matches we tend to look at.

Q What kind of entities do you do this work for?

A We do this work for federal, state, and private organizations. We have some Environmental Protection Agency projects going on right now, EPA projects that are related to studying wetland condition throughout the state.

We have some state projects going on that are funded by DEC to look for rare species on state forest lands

and as well as the natural communities on the state forest lands.

We have some private projects going on right now. Just started up a private project that will be looking at Hempstead Plains grasslands on Long Island. So there is a sample of a variety.

Q Thank you. Prior to your employment as director of science with the Natural Heritage Program, did you hold other positions with Natural Heritage?

A I think technically my title before this was program scientist and technically my title before that was ecologist. So I came in as an ecologist.

Q Prior to working for Natural Heritage, were you employed?

A Yes. I was a researcher, a post doc, post doctoral associate at SUNY Stony Brook.

Q Does your work experience include the study of forests within the Adirondack Park in New York?

A Yes. I have spent much time in the forest.

Q In various areas of the forest preserve?

A Yeah, and including outside, I mean, including the Catskills and including the Tug Hill, and other forests in the state.

Q Does your experience include an understanding of

forest canopy and clearcutting?

A It does.

Q Does your training or experience include an understanding of forest fragmentation?

A Yes, it does.

Q And does your training or education or experience include an understanding of the ecology and impacts to forests of recreational activities?

A Yes. Not in the sense of actual usage, but in the sense of roads and trails and what's created to sustain recreational activities, sure.

Q Thank you. Dr. Howard, I have shown you what has been marked as Defendants' Exhibit BX. Do you recognize this document?

A I do.

Q What is it?

A It's my CV, curriculum vitae.

Q Did you prepare it?

A I did.

Q Dr. Howard, is this CV an accurate summary of your education, degrees, professional associations, work experience, and other professional accomplishments?

A It is.

MS. SIMON: I move to admit Exhibit BX into

evidence.

MS. BRAYMER: One question, your Honor.

VOIR DIRE EXAMINATION

BY MS. BRAYMER:

Q The not peer reviewed recent reports listed on page 2, are those available online?

A Some of them are. Many of the Heritage Program reports have rare species information in them and thus they aren't necessarily available and they are for internal use only for whoever we created them for. But some of the reports are available, yes.

MS. BRAYMER: No objection.

THE COURT: Defendants' Exhibit BX is received into evidence.

(Defendants' Exhibit BX received in evidence.)

MS. SIMON: Your Honor, I ask the Court to certify Dr. Howard as an expert in ecology, including landscape and forest ecology.

THE COURT: Do you want to be heard on that, Miss Braymer?

Just, again, the Court will not unilaterally make any certifications on any application, no matter how much the experience, education, qualifications or

training comports to that, because the proper method, as I understand it, and as we are certainly going to follow in this trial, is I will rule on any objections made to the basis of the ability of the expert to answer such question.

So please go ahead.

MS. SIMON: Thank you.

BY MS. SIMON:

Q Dr. Howard, are you familiar with the Petition slash Complaint in this case?

A I am.

Q Are you aware that the plaintiff is alleging that certain trails, known as Class II community connector trails, violate the New York State Constitution, Article XIV, Section 1, known as the Forever Wild Clause?

A Yes.

Q Dr. Howard, did there come a time when we met and you were asked to work with the state defendants, DEC and the Adirondack Park Agency, on this case?

A Yes, there did.

Q Did you agree to work with the defendants?

A I did.

Q And Dr. Howard, are you being compensated for your work in this case?

A Well, technically I'm doing this as part of my position as director of science. So I'm on salary. So, yes, I am being compensated.

Q Dr. Howard, have you been to the Class II trail known as the Seventh Lake Mountain Trail located in the Moose River Plains Wild Forest unit?

A Yes, I have.

Q Have you been to the Class II trail known as the Gilmantown Trail?

A Yes, I have.

Q When did you visit these trails?

A Early --

MS. BRAYMER: Objection. Is she asking about more than just Gilmantown?

THE COURT: She said Seventh Lake and Gilmantown.

MS. SIMON: Correct.

THE COURT: So you are objecting to the compound nature of the question or withdrawn?

MS. BRAYMER: Withdrawn.

THE COURT: You may answer.

A Late summer of 2016.

BY MS. SIMON:

Q Dr. Howard, did there come a time when we discussed the allegations in the Complaint of clearcutting on Class II

trails?

A Yes.

Q What is clearcutting from an ecological perspective?

A So actually, I actually spent some time looking in the ecological literature for a definition of clearcutting, and that's a tough -- that is very tough. It's not really there; however, there are many, many studies on the ecological effects of clearcutting. And there are often things measured that ecologists will do in a clearcut and outside of a clearcut in the forest nearby.

So you can look at different metrics and look at the differences between in a clearcut and out of clearcut and, therefore, what makes up a clearcut, but otherwise there is no clear definition of what a clearcut is.

Q What are some of those ecological effects?

A There are studies that show higher temperatures in the daytime in the middle of a clearcut as opposed to the forest interior next door. And it was often cooled down more rapidly too. So cooler temperatures in the middle of the night in the middle of the clearcut, because of cooling in the sky. And in contrast to the middle of the forest nearby they won't be cooler. They will cool down rapidly.

You also have the differences in vegetation.

Obviously there are no trees in the middle of the clearcut. The standard forest practice, that's where the term came from, was to take out all the trees in the clearcut and you end up with up to the line where the trees have taken that line, that edge with the forest is called the forest edge, and then you can march further into the forest and you get toward the forest interior.

Q And when you say forest edge, what do you mean?

A So forest edge is another term that's often used in the scientific literature, the ecological literature, and it's actually describing that distinct phenomenon where you have all of the trees being removed at one spot and then nothing touched at some boundary where they did not remove the trees, and because of increased light penetration in the clearcut and, therefore, at the edge of the forest, there is a different dynamic going on at that forest edge. And that increased light penetration causes more growth there in the forest floor and causes more increased growth with shrubs at that spot and often branches from the trees might start growing at that lower part as well.

So you can get forest edges on sort of any place where you have a wide clearing of trees and then the forest remains relatively intact at that edge. There are effects of forest edges on the natural communities that occur

at that spot.

Q Thank you. Is there any relationship between clearcut and forest canopy?

A Yes. In a clearcut there is no forest canopy, whereas in the adjacent forest, there tends to be very high forest canopy cover.

Q And how does the clearcut in the forest affect the canopy?

A It removes it.

Q Could you explain what a forest canopy is in ecological terms?

A Sure. In a forest you have actually different layers, they call them strata, of vegetation. And the driving force is sunlight, is light, and trees are growing towards that light, and so the upper portion of the trees, the trees that are at the highest or usually the highest level, have their full -- are fully -- have their leaves oriented to capture as much sunlight as possible, and those leaves tend to occur at the top parts of the trees. So you have -- so if you are standing in a forest, it may be relatively open underneath, but you look up and you see most of the sun is blocked by leaves. That's typically called the forest canopy.

Now, there are cases where trees might, some

trees, and here in the northeast, in the Adirondacks, white pine is a good example that can continue to grow higher than all the adjacent trees, and those are the trees that emerge, they are emergent trees, they emerge from the forest canopy. But the vast majority of trees are at this one sort of highest level.

And then below that you can have what they call sub-canopy layers where you might have trees that haven't made it to the full sunlight yet, but could be quantified or measured at those lower levels.

And then below that you might have another layer, the shrub layer, different kinds of shrubs.

And then below that you might have non-woody plants, such as herbs and flower. You might know them as wildflowers that grow on the lowest layer.

Q Other than a clearcut, are there other factors that affect the forest canopy?

A Yes. So, as I said, a clearcut removes all the trees from the canopy, cuts all the trees down, obviously, because that is harvesting. But you can have other forest gaps they would call that. And so that might be a natural occurrence where a single tree may fall down and create a sunlight gap, and that's called a tree fall gap.

You may have multiple trees blowing down as

well, from a small cluster, or one tree falling knocks a few other trees down.

You can have hurricanes that can knock down hundreds of thousands of acres at the same time.

You can have other natural gaps occurring at river shores or stream edges.

You can have other natural gaps occurring at cliffs, at outcrops where trees can't necessarily grow. Sometimes rocky summits or rocky ridges where the trees have not grown in a closed canopy.

So you might have canopy openings in a variety of things.

Q Thank you. Did you observe the canopy on any of the Class II trails you visited?

A Yes.

Q What did you observe with regard to the canopy on the Seventh Lake Mountain Trail?

A Yes. So that was -- so I walked all of the northern section of that trail and there were parts where the canopy was closed, where the canopy -- the trees from either side of the trail went over your head and, therefore, had closed canopy. And there were certainly other parts where there were openings in the trail where we had open gaps, canopy gaps.

Q Did you observe any areas in that segment three of the Seventh Lake Mountain Trail where there were natural openings?

A Yeah. This is actually interesting and in Signell's maps of the natural communities on the trail, I think he called them maple hilltops. And these were -- you start from about Eighth Mountain Lake, at the Eighth Lake Campground, you know, spot, and you go north and you get to these hilltops. They are actually quite different than most of the forest there, these little ridge hilltops. And I think even in one of the affidavits it was termed sort of a Savannah type environment.

And you are standing there -- I'm standing on there, on the trail, and I'm looking off trail, pretty far off trail, and the canopy is more open there. It's very interesting. And there is actually quite a bit of red, a red raspberry there in the understory, which is a highlight requiring plants.

So it's kind of neat that you have this sort of more open canopy, not the necessarily -- not your typical closed canopy forest. And those are pulled out in the map that Mr. Signell created.

Q Thank you. Dr. Howard, as part of your professional work, do you have access to aerial images?

A I do.

Q Do you observe or analyze aerial photography as part of your work?

A I do.

Q Dr. Howard, did there come a time when I asked you to write affidavits in this case?

A Yes, you did. Yes, there was.

Q Did I also ask you to respond in an affidavit to allegations of clearcutting on Class II trails?

A Yes.

Q Dr. Howard, I have shown you what has been marked as Defendants' Exhibit CC for identification. Can you identify this document?

A Yes. This is a copy of a map that I produced on page 3 of the exhibit.

Q Is this an aerial image?

A Yes. Included in the map is an aerial image.

Q And what is the date of the aerial image?

A It's 2013.

Q What month?

A May of 2013.

Q Dr. Howard, when you made this map and image, what source did you use?

A So, the aerial image is from the New York State

Digital Orthoimagery Program. And they run flights statewide over a series. They don't do the entire state in one year, but over a series of years they will cover the entire state. And so we have access to this imagery and that's something that we can show on our Geographic Information Systems.

Q Thank you. And could you tell me the location of this image?

A Yes. This is a section of the Seventh Lake Mountain Trail.

Q What section and segment?

A It's a portion of segment three of the northern segment.

Q The most northern portion?

A The most northern, yes.

Q Where is it -- what portion of segment three is depicted on this image?

A So this image you can see a small portion Eighth Lake in the image. You can see a portion of Route 28 in the image. And you can also see a portion of where the trail is as well. There is an inset map on the map I created that gives you a broader perspective of sort of where that is. And on the inset map, which actually uses a base, USGS topo map base, that inset map shows the trail and the Route 28, and Eighth Lake.

Q Dr. Howard, is this a fair and accurate copy of the document you prepared?

A Yes, it is.

Q Dr. Howard, the first two pages of this Exhibit CC, could you tell us what that is or just tell us the date of it?

A Yes. This is certification of the imagery and the date on it. I mean, it's --

Q Just the signature page with the certification.

A February of 2017.

MS. SIMON: I move to admit Exhibit CC into evidence.

THE COURT: Miss Braymer?

VOIR DIRE EXAMINATION

BY MS. BRAYMER:

Q How exactly did you produce this map?

A Well, the way GIS systems work is that we have access in our office to different, they call them map layers. And with those map layers I could turn on or turn off. I could load and then turn on or turn off different layers I was interested in using.

So I first went to the location I was interested in mapping. And then I said, okay, what aerial imagery is available to me for this location. And the most

recent imagery available was a 2013 image, so I turned that on.

And then the great thing about this mapping system is that I can do the inset map also, and it's automatically with a red rectangle telling us where we are with that inset map. And so that's -- I have no control over where that red rectangle is. So it gives us a good idea of where we are on the image.

Q Are you the one that put these little ridge --

A I also annotated it, because I wanted to be able to project what I could see with my imagery interpretation skills, to others, what we were seeing. So I annotated this image with the three bridges that are clearly visible in the image. And those are snowmobile trail bridges.

Q In this photograph, do the deciduous trees have their leaves on in this time frame, May of 2013?

A This is leaf-off condition.

Q Did you speak with Mr. Tim Roran (phonetic)?

A I did not, no.

MS. BRAYMER: Your Honor, I do not object to the map itself. I do object to the affidavit that was attached to that map.

THE COURT: Okay. I haven't seen it yet, so I don't think Miss Simon elicited much evidence on it. So

I'm in the dark as to what we are talking about.

So go ahead.

MS. BRAYMER: Pages 1, 2, and 4 of the exhibit appear to have no foundation and would be extraneous to the map he's saying he created.

THE COURT: Tell me about what they are briefly.

MS. BRAYMER: It's an affidavit from some person in the state, a technology person, saying they compared the digital image with files at the Office of Information Technology Services.

THE COURT: Well, Miss Simon, if she's got no objection to the substantive portion of Exhibit CC, is that an issue or?

MS. SIMON: If the exhibit is going to be moved into evidence, I guess I would point out that I got the document certified, the aerial image, and the testimony of the person that made it.

So if it's going in, what I want is the actual image. I don't know if that answers your question.

THE COURT: I think it did, but I hate to assume. I think you were saying -- I'm going to take that as you saying you have no objection to withdrawing pages 1, 2, and 4, upon the condition that the Court accept Defendants' CC substantively. Not upon that condition.

I should say upon the condition that Miss Braymer is not opposing CC, page 3.

MS. SIMON: Can I reserve my right to readmit it if there is a later application?

THE COURT: You can always reserve your right to make a new application.

MS. SIMON: Then Exhibit CC can be just the image.

THE COURT: All right. So why don't we give that back to Miss Simon for a moment so she can take off the extraneous pages. We will have just the image remarked as CC to the extent it wasn't. And on those, after that is done, CC is received into evidence without objection.

(Defendants' Exhibit CC received in evidence.)

BY MS. SIMON:

Q Dr. Howard, could you tell us what this photo depicts, this image?

A Okay. So, starting over with my full map, this is a map that contains two sort of sub-maps. The inset map is your locational map that has the USGS topo map as a base and it shows us that we have Eighth Lake and we have a black line, which is Route 28, traveling on the east side of Eighth Lake. And then there is a blue line just to the east of Route 28 and that's the Seventh Lake Mountain Trail, GIS

representation of the Seventh Lake Mountain Trail.

The red square in that inset map is the exact location of the larger image, which is our orthoimagery.

So looking at that larger image you can see a piece of Eighth Lake on the northeast side of that image. You see the lake there. And then you see --

Q Hold on. Northeast?

A I'm sorry. Northwest. Thank you.

Q Thanks.

A And then just east of that you have paved road, which is visible, and that's Route 28. And you can even see the white lines, and maybe in some of the shadows, the yellow and white lines of that two-lane paved road.

The dark splotches on the paved road are shadows of the trees adjacent the road casting their shadows on the highway.

Q You testified that this is leaf off. Could you say briefly what that is?

A So leaf off is because our forest has seasonality up here. We have some trees, the conifers, the needle leaf trees usually keep their needles on year round, but all the deciduous trees drop their leaves in the winter. And so in this image it's actually really pretty striking. This is called a true color image and all of the green are the

coniferous trees that have their leaves on. And then all the brownish area is actually full forest, but it's just you are seeing bare stems and trunks of the trees, because their leaves are not on the trees.

And so the neat thing about that is you can see through those trees to the ground. And in this case, very strikingly, you can see three of the bridges on the Seventh Lake Mountain Trail. And those, I pointed out, are annotated just so we can see them. And they look like little rectangular objects on the ground of the image.

Now, the other neat thing about this image is you can see some dark lines traveling, perhaps to the bridge and across the bridge, and those are streams. So you can -- especially the southernmost bridge there is a clear, dark line traveling from southwest towards northeast, and that's the stream the bridge is going over. And you can -- it's harder to see the streams and the other bridges, but they are there as well.

Q Based on your experience interpreting aerial imagery of this sort, can you see the Seventh Lake Mountain Trail?

A No. It's very difficult to see. I think I catch a glimpse of it in the northern, near the northern bridge, a little bit south of the northern bridge, but it's very

difficult to see here.

Q Can you draw any conclusions from the fact that you can't see the trail?

A From this top down view, this aerial imagery view, the trail is very difficult to see and it doesn't necessarily seem to be creating any kind of barrier, especially in relation to Route 28, which is a clear -- it's obviously cleared the woods of the forest at Route 28 and that's creating a much larger barrier.

Q Dr. Howard, what does this photo indicate to you with regard to the canopy in the Seventh Lake Mountain Trail?

A Yeah. The canopy looks relatively contiguous, therefore, thus unbroken over the trail.

Q Thank you. Dr. Howard, I'm showing you what is marked as Defendants' Exhibit CU for identification. Can you identify this document?

A Yes. It's another aerial image.

Q What is it an aerial image of?

A It's exactly the same location as the one we were just discussing. Thus, it's a portion of the Seventh Lake Mountain Trail and it was acquired -- the time the photo was taken it was July of 2013.

Q Do you know -- it's the same location as what you testified to as Exhibit CC?

A That is correct.

THE COURT: What was the date on that one again?

THE WITNESS: July of 2013.

THE COURT: Thank you.

BY MS. SIMON:

Q Dr. Howard, is there an attachment to this photo?

A Yes. It's a certification from the USDA Forest Service that it's an official photo of theirs.

Q Could you read the title of the paper that is attached to it? The letterhead. Sorry.

A USDA. It is their logo. And then it says United States Department of Agriculture.

Q What does it say at the bottom under the word certification?

A This is to certify that the attached print was made from the aerial record, which was secured while photographing Hamilton County, New York, and is on file as the official government record.

Q What's the date of the certification at the top?

A Date of certification is March 16, 2017.

MS. SIMON: I move to admit Exhibit CU into evidence.

THE COURT: Miss Braymer?

VOIR DIRE EXAMINATION:

BY MS. BRAYMER:

Q Did you obtain this document and the letter from the USDA?

A I did not obtain the letter. I obtained this imagery and viewed it in my GIS as well, in a very similar manner that I was viewing the others, and then -- and that's it.

MS. BRAYMER: Your Honor, I object basically on the same reasons as I did with the last photograph. It appears they have another photograph that maybe would be more appropriate into evidence than this document, CU, because there is no foundation for him having obtained this particular piece of paper.

THE COURT: All right. But they are proffering it, presumably, as a self-authenticating government record.

MS. SIMON: Yes.

THE COURT: What's your response to that?

MS. BRAYMER: That he did not rely on this particular government document to make any other documents that he did create. He did not rely on this document.

THE COURT: Your objection is overruled. The Defendants' CU is received into evidence.

(Defendants' Exhibit CU received in

evidence.)

BY MS. SIMON:

Q Dr. Howard, looking at Defendants' Exhibit CU, what can you tell me about this?

A Well, once again, you can see Eighth Lake and the northwest quadrant. And below that you can see the paved road, County Route 28. And, again, yeah, even in the shadows down in the southern part of the road I can see the yellow line in the middle and the white lines. So it's a pretty good resolution image.

And the neat thing is you can see the tree canopy and you can see the tops of individual trees. There is color variation among them. And there are shadows in places, a patchwork of shadows of often the tops of trees, you know, casting their shadow, especially lower parts of the canopy.

But there is clearly, and we know from the other image, and from my GIS, I know the trail passes through here, the exact same spot, but there is clearly no linear opening, no linear feature visible in this imagery set.

Q So, can you see the Seventh Lake Mountain Trail?

A No. I can't see the bridges either.

Q How is this photo different from the leaf-off photo?

A This is leaf-on condition, so we can't see the ground.

Q What, if anything, does this photo indicate with regard to the forest canopy on the Seventh Lake Mountain Trail?

A So, from this view the canopy looks contiguous. It's full closed canopy all the way up to Route 28.

Q Thank you. Dr. Howard, do you have an opinion within a reasonable degree of certainty as to whether the Seventh Lake Mountain Class II trail constitutes a clearcut?

A I do.

MS. BRAYMER: Objection.

THE COURT: What's the objection?

MS. BRAYMER: The plaintiff's position is not that this is some sort of forestry clearcut under timber management standards.

She elicited testimony from him earlier about this being a forestry practice. He also said there was no specific definition of a clearcut.

THE COURT: I do remember that.

Miss Simon?

MS. SIMON: The Complaint has numerous allegations regarding clearcutting on Class II trails. I elicited in his early professional experience if he understood

what clearcutting was and definitions of clearcutting a canopy. And I think it's relevant. It's in the Complaint.

THE COURT: Why don't you elicit a little bit more from him with regard to his definition of a clearcut and I will take it from there.

MS. SIMON: Okay.

THE COURT: The rest of the objection is overruled.

BY MS. SIMON:

Q Dr. Howard, let's go back to your understanding of what a clearcut is and the basis for that. Could you tell us?

A Can I use the trail as an example as I describe?

Q Sure.

A So, let's talk about forest edge. A clearcut has a clear open spot and a clear forest edge and then a clear closed canopy adjacent to that.

As I was on the Seventh Lake Mountain Trail, you are standing on a trail, and adjacent to you is where you would expect to have that forest edge. And there is -- it's not there as defined by clearcut. So there is not additional growth at that forest edge. There is not an increased density of shrubbery at that forest edge. There is not an increase in lower canopy or lower branch growth at that

forest edge of the trail. There is basically -- there is not the strong forest edge that you can measure and quantify in clearcuts as opposed to your trail.

Same thing with the far interior center of the clearcut, as I mentioned, has higher temperatures during the day and lower temperatures potentially at night. The same thing. Because it's a patchwork, because if you are walking along the trail, you will find open areas and you will find closed canopy areas and open areas and closed canopy areas. The linear disturbance is not large enough to create the ecological effects of a clearcut.

So those are my reasons why it's clear to me that this trail doesn't constitute a clearcut per ecological definitions.

Q Thank you. Dr. Howard, do you have an opinion within a reasonable degree of certainty as to the canopy on the Seventh Lake Mountain Trail?

A Yeah. If you balance from my on-the-ground visit where I had scattered sections of closed canopy and scattered sections of open canopy, standing on the trail you look up, you might see leaves. If you are standing on the trail in another place you look up, you might not see leaves.

THE COURT: Slow down a little bit. Go ahead. Keep going.

A And then compare that to the aerial imagery, the photos that I can view in my Geographic Information Systems, that patchwork does not create a linear disturbance. It doesn't create a linear fragment, an opening, an opening that's clearly aligned throughout the landscape.

So, coming back to your question, you know, in my professional opinion, this is not a clearcut.

Q And the second question after clearcut was, as to within a reasonable degree of certainty as to whether you have an opinion as to the canopy.

A Yeah. The canopy overall is closed. It's a closed canopy throughout.

Q Thank you. Dr. Howard, I have shown you what has been marked as Defendants' Exhibit CB for identification. Can you identify this document?

A Yes. I created the map on page 3.

Q How did you create it?

A The same way as with the Seventh Lake Mountain Trail. This is a two-parted map with an inset map that shows the general location of the larger map, which is aerial imagery for a portion of the Wilmington Trail.

Q When you refer to the same as the Seventh Lake, you were referring to Defendants' Exhibit CC? Could you check? Is that the other one?

A Yes, that's correct.

Q Thank you. And you said this is an image of a portion of the Wilmington Trail?

A The northern end of the Wilmington Trail.

Q Is there a date that goes with the image?

A Yes, April 2014. So this is leaf-off condition.

Q Is there anything on this document other than the aerial image?

A Well, again, I have annotated it with three of those call outs. One of them being a bridge we can see again. Another being a stream. And another being the point where the snowmobile trail ends at Forestdale Road, which is a small paved road.

Q Is this a fair and accurate copy of the document you prepared?

A Yes, it is.

Q Does it contain two pages before the image and one after?

A Yes. Once again, these are certifications of the aerial imagery.

MS. SIMON: I move to admit document CB into evidence. And if opposing counsel wants to modify it, as we did the other one, I am agreeable to that.

THE COURT: Miss Braymer?

MS. BRAYMER: I would like to remove pages 1, 2 and 4.

THE COURT: All right. Defendants' CB, that is solely page 3, which we will remark, is received into evidence. That's in our exhibit list as the Gilmantown Trail Map, is that correct, or is that a mistake on the exhibit list with the Court? What is this?

MS. SIMON: CB as in boy.

THE COURT: Boy. Nevermind.

(Defendants' Exhibit CB received in evidence.)

BY MS. SIMON:

Q Dr. Howard, what does this image depict?

A So, once again, it's a map containing two maps. The inset map shows us the general area at which the larger map is placed and that inset map has a USGS topo map as a base, thus giving you the sort of general area. It has, you can see a black line running across it. That is Forestdale Road. You can see a red line running from the south up to Forestdale Road and that is the northern end of the Wilmington Trail.

The red square on that inset map or rectangle is the exact location of the larger view, the larger map. And the base that I used for that larger map was the state

aerial imagery layer from 2014.

Q Is this a photo leaf on or leaf off?

A This is leaf-off condition from April of 2014.

Q Can you see the Wilmington Trail based on your experience?

A Once again, you can clearly see a bridge, which is cool, and you can see the stream that the bridge crosses over, which is also annotated in that image. And I think maybe for a short section, south of the northern terminus, I can see where the trail is, but most of it I can't see the trail.

Q What does this photo indicate to you with regard to the forest canopy on the Wilmington Trail?

A Right. So once again, this is leaf off. So all that brownish area where there aren't coniferous trees, it's deciduous forest, and it looks like contiguous forest to me.

Q Thank you. Dr. Howard, I'm showing you what has been marked as Defendants' Exhibit DD for identification. Can you identify this document?

A This is a USDA Forest Service aerial image and the date of the image acquisition when they took the picture was June of 2015.

Q Do you know the location of this image?

A Yes, this is the same spot. You can see Forestdale

Road in the northwest quadrant and the trail travels from that, this portion of Forestdale Road south.

Q When you say this is the same, are you referring -- is it the same as is Defendants' Exhibit CB leaf off location?

A That is correct.

Q Thanks. And could you tell us what's attached to that document?

A It's a certification from the US Department of Agriculture that this really is their image.

Q What is the date of the certification?

A Certification was March 16, 2017.

Q Under the word certification, could you read -- I'm sorry. I will read from it.

What is the date of the image, if you didn't already say? I'm sorry.

A June 4th, 2015.

Q Thank you.

MS. SIMON: I move to admit Defendants' Exhibit DD into evidence.

THE COURT: Miss Braymer?

VOIR DIRE EXAMINATION

BY MS. BRAYMER:

Q Mr. Howard, did you obtain this document from the

USDA?

A I personally did not.

Q Did you rely on this particular document, the first page of Exhibit DD?

A The first page being the typewritten page or the first page being the image?

Q I'm sorry. My first page is the actual image. So I'm talking about the piece of paper image. That would be your second page.

A Recognize that this is digital imagery and thus I used this exact image in its digital form when I was viewing in the GIS. This is a photo print, a photographic print of that exact image.

Q Did you create any maps using that digital information?

A I believe so, yes. I can't remember. I viewed it for sure.

Q Do you have that digital map with you today? I'm sorry, print of digital map?

MS. SIMON: Objection. It's not relevant to whether this can be admitted into evidence.

THE COURT: The objection is sustained.

MS. BRAYMER: I have the same objection as before, that he did not rely on this piece of paper. And also I

would like to note for the record that this was provided to us today. It was dated March 16th and we did not have an opportunity to observe this document before today.

THE COURT: Do you want some more time now?

MS. BRAYMER: No.

THE COURT: I understand you are all -- I want to be clear. This has happened from both sides. And I understand you have all worked hard on the case for years. And I also understand that even when you have worked hard on a case for years, sometimes things don't get passed back and forth due to the exigencies of trial and thinking of things as they come up until they happen. But I don't want anybody to be prejudiced in any way. If any of you need more time when something like that happens, I want to be clear it's a non-jury trial. I don't have a jury waiting. I will give you the time that you need.

MS. BRAYMER: I do not need any time at this moment, your Honor, but I would like an opportunity to confer with our expert about this image that has been provided today. So I'm happy to carry on.

THE COURT: Good enough.

MS. BRAYMER: I think we can do it at a break.

THE COURT: Thank you. DD is received into evidence over your objection.

(Defendants' Exhibit DD received in evidence.)

BY MS. SIMON:

Q Dr. Howard, what could you tell me about this image?

A It's leaf-on condition for that northern portion of the Wilmington Trail and I can't see through to the ground. It's, again, an excellent texture. You can see the tree canopy. You can see the individual trees and their leaf crowns. But, again, it's contiguous forest. There is no clear linear feature of the trail. You can't see the trail.

Q You can't. And what, if anything, does this photo indicate with regard to the forest canopy of the Wilmington Trail?

A The forest canopy is on the whole when you are viewing from above. It looks like a closed forest canopy.

Q Thank you. Dr. Howard, do you have an opinion within a reasonable degree of certainty as to whether the Wilmington Class II trail constitutes a clearcut?

MS. BRAYMER: Objection.

THE COURT: Overruled.

A I do have an opinion, yes.

Q What is that opinion?

A It's not a clearcut.

Q Dr. Howard, do you have an opinion within a reasonable degree of certainty as to the canopy on the Wilmington Trail?

A From this perspective, looking at the high resolution imagery, the canopy, it's a closed canopy throughout the trail for this section of the trail.

Q Thank you. Dr. Howard, moving on. What is forest fragmentation?

A Forest fragmentation is the phenomenon of breaking a large forest up into smaller pieces and there are many different kinds of fragmenting features, including roads and including rivers and streams, and that's often used as a metric of forest condition and it's something that ecologically you are very interested in how fragmentation, how much a forest is fragmented.

Q What impact, if any, does fragmentation have on a forest?

A Overall fragmentation actually has significant effects on the plants and the animals that live in the forest. And it's important conservation strategy to think about larger forest blocks and I will generally call them forest blocks, and that's the connected area of forest that

is surrounded by the fragmenting features like roads.

Q Is there an ecological benefit to defragmenting the forest?

A Yes. And I think we need to recognize that forests work on a much longer time scale than we humans do. We have been talking, you know, forests, trees can live to 200, 300 years, and forests can mature over a very, very long time. And so if you strive to reduce fragmentation in a forest block, then the forest can slowly recover and you end up with ecological systems and natural communities responding slowly over time to improve the health of that forest.

Q Dr. Howard, did there come a time when I asked you to analyze trail closures and their impacts on forest fragmentation in certain parts of the forest preserve units?

A There did.

Q Did you undertake an analysis of fragmentation?

A I did.

Q Where? What areas?

A I looked at Gilmantown, the Seventh Lake Mountain Trail, and Wilmington Wild Forest, Wilmington Trail.

Q What information did you use to evaluate fragmentation in these areas?

A So I used -- I used the trail information as provided to me by Mr. Clague, who testified this morning, and

as well as other trail information from road networks, generally available roads for New York State, and I think that is probably it.

Q Dr. Howard, is there a generally accepted protocol in your field for evaluating forest fragmentation?

A No, there is no one generally accepted protocol. There are many different ways you can evaluate forest fragmentation. I chose a few measures or metrics of fragmentation with which to do my assessment. And these metrics are available in the literature and have been used in the past to look at forest fragmentation.

Q What were these metrics?

A So, one is simply what is the largest forest block size of the remaining forest block. So if you have a large area, 10,000 acre forest block, and you put a road right through the middle of it, you end up with two forest blocks, say one is 6,000 acres and one is 4,000 acres. The largest remaining forest block size is that 6,000 acre block. So that's one measure. What's the biggest forest chunk we have left.

Another measure is I used something that's called the shape index and that's generally simply a relationship between the length of the perimeter of roads or whatever the fragmenting feature is around the forest block

and it's ratio to the size of the forest.

So the smallest you can get, a perfectly round forest, would have a shape index of one, because it's the shortest road you can get into circling that forest block. So a circle would have a shape index of one. And as soon as that forest block gets elongated or has roads going into it or has other ways to make it less round, your shape index increases and increases.

So a larger shape index is a measure of higher fragmentation, more fragmentation.

One more thing. And then the third measure I used was the average shape index for all the different remaining chunks of forest. So we divide that 10,000 acre forest into two pieces. I can measure the shape index of those two pieces and average them. And I think I did an area weighted average. So the larger one got a higher rate than the smaller one.

So those are my three measures that I used to evaluate fragmentation. One was the largest forest block size remaining, or largest forest block.

The second one was shape index of that largest forest block.

And the third was the average shape index for all of those pieces.

Q Is it generally accepted to use metrics for forest fragmentation evaluation?

THE COURT: For what? I'm sorry.

MS. SIMON: Forest fragmentation analysis or evaluation.

A Yes. You have to -- yes. In the literature that I have read, the way to evaluate the level of fragmentation is to use -- you have to have a way to measure it. And so using metrics of some sort are the ways to make that comparison between one situation and another situation, one block and another block.

In this case it will be the before we put the trail in version of fragmentation versus the after scenario.

Q When you measured the block, in other words, you are saying the largest size remaining, what measurement did you use, acres, miles? What measurement?

A Acres.

Q Okay. And in shape metrics, is the smaller number -- does the smaller number mean it's better for the forest?

A The smaller number means less fragmenting features, less fragmentation.

Q Thank you. Dr. Howard, I've shown you what has been marked as Defendants' Exhibit CV for identification.

Can you identify this document?

A This is a pair, one image, one figure, but it's a pair of maps that I made.

Q And when did you make it?

A This fall, fall of 2016.

Q What systems did you use to make it?

A I used a Geographic Information System.

Q Is there a base map to this?

A Right. So each image has a base map, which is something that I didn't modify, and that's the USGS topographic map series, just to give us an area of where we are on the landscape. And then on top of that, each of these images I have calculated and marked the perimeter, the forest block with which my analysis is concerned, as well as trails marked. And I noted that I made two maps. One map, the left-hand scenario, is the before scenario that actually has in this case, since this is the Gilmantown section, it has the Dunning Pond Trail on it. So that's the trail, the before scenario. And on the right-hand map I have the after scenario where we have the Gilmantown Trail installed and the Dunning Pond Trail removed because that trail was closed.

Q Is this an accurate copy of the document you prepared?

A It is.

MS. SIMON: I move to admit Exhibit CV into evidence.

THE COURT: V like Victor?

THE WITNESS: Yes.

MS. SIMON: V as in victory.

THE COURT: Miss Braymer?

VOIR DIRE EXAMINATION

BY MS. BRAYMER:

Q I have a question about the right map --

A Yup.

Q -- where you are no longer showing the Dunning Pond Trail because it was removed. Is it that it was removed from your map or is it removed from DEC usage?

A Well, it was removed from my map. And the point of removing it was because it was closed for snowmobile travel.

MS. BRAYMER: No objection.

THE COURT: Defendants' CV is received into evidence.

(Defendants' Exhibit CV received in evidence.)

BY MS. SIMON:

Q Dr. Howard, what does the black line represent in this map, in these pair of maps?

A So what I did was I created a focus area. So

what's the area of interest for my analysis. And that is where the Gilmantown Trail is going to pass through. So I needed to have an estimate of my forest block size, what's my largest forest block.

So, within this area the black line shows the roads or other fragmenting features around that entire forest block. And so on the left panel you will see the black line going basically following the road, but I think in the northeast side, I think that's actually a power line cut. And then we also have in the southwest there is a snowmobile trail there that I'm considering the external part of the forest block.

Q And within that black area --

A Yup.

Q -- do you recall how many acres you studied?

A No. I would have to look in my notes to get the exact data.

Q Do you have something you can look at to refresh your recollection?

A Yes.

Q Let us know what it is you are looking at.

A So I have my affidavit that I created in the fall of 2016 and I assessed in acres the, you know, I created a table that has acres and the metrics that I used for each of

these. And the largest in the left-hand side, it's about 7.9000 acres the largest block.

MS. BRAYMER: Your Honor, could I just know what he's looking at?

THE COURT: Yes.

Could you tell us what you are -- don't read from it. You are using it to refresh your recollection. Tell us what you are looking at.

THE WITNESS: It's my affidavit from 08/24/2016. Is that okay?

THE COURT: Yes.

You may continue.

BY MS. SIMON:

Q So the acreage you said on the left-hand side map is 7,900?

A Yeah, about 7,900 acres, and that's referring to the northern portion of this forest block, because there is a fragmenting feature, the Dunning Pond Trail.

Q And the acreage on the right?

A On the right-hand side the largest remaining chunk is now east of the Gilmantown Trail and that's about 9,700 acres.

Q What does that tell you about in this before and after scenario on your block metric?

A So if you remove -- if you close that, the Dunning Pond Trail to snowmobile traffic and create --

Q Could you identify what color that is?

A That's the pink trail on the left-hand map.

Q Thank you.

A And then add the Gilmantown Trail. That's the blue line on the right-hand map. You are effectively changing, dramatically changing the size of the largest forest block. And rather than bisecting it right through the middle, you are actually -- the trail follows a little bit more along the edge and you end up with a larger, larger forest block, a larger connected forest block.

Q Did you estimate the percentage increase in that forest block?

A I did and I will refresh my recollection. And that's a 22 percent increase in size.

THE COURT: Tell us what you were looking at. You are looking at the same document?

THE WITNESS: I'm looking at the same document, my affidavit.

BY MS. SIMON:

Q Thank you. Did you make any determinations on your shape index metrics?

A Right. So the shape index changed as well, and

this time similarly for an improvement in both ways. The shape index of the largest block, as well as the shape index of the average, in this case of the two blocks in both cases.

Q Do you recall what, if any, percent change was in the shape index?

A Right. So looking at my affidavit again, you had an increase of the shape index of the largest block of about 9 percent and the average of all blocks you had an increase of 3.6 percent.

Q So what does this tell you overall about your study area with regard to fragmentation?

A So, again, thinking long term, the practice of closing more interior trails, in this case the Dunning Pond Trail, and while at the same time adding this trail that's more to the perimeter of the forest block, increases, you know, improves these forest fragmentation measures.

Q Thank you.

THE COURT: Miss Simon.

MS. SIMON: Yes.

THE COURT: Would this be a good time to take our luncheon recess?

MS. SIMON: Sure. Yes.

THE COURT: All right. I have a brief appearance in an unrelated matter over in the other courthouse at

quarter after 1. So we will recommence at 1:25.

Miss Simon, unless you are concerned that there is some possibility for prejudice, I would ask if you could turn Dr. Howard's file over for review to Miss Braymer during lunchtime to help us move things along.

Miss Braymer, that doesn't mean you don't get to have lunch. If you have time to look at it, I would appreciate it, but if you need more time at the conclusion of Dr. Howard's testimony, you will get that as well.

MS. BRAYMER: Thank you.

THE COURT: Okay.

You can do that?

MS. SIMON: Yes. Absolutely.

What time are we coming back?

THE COURT: About 1:25.

MS. SIMON: Thank you.

(Whereupon a lunch recess was taken at 12:11 p.m.)

I N D E X

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DEFENDANTS' WITNESSES

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Joshua Clague	1243	1261	1276	1279
Timothy Howard	1282	----	----	----

PLAINTIFF'S EXHIBITS

NO.	DESCRIPTION	IDENT.	EVID.
168	CP-38 DEC Policy	----	1242

DEFENDANTS' EXHIBITS

NO.	DESCRIPTION	IDENT.	EVID.
BU	Map depicting Moose River Plains trail closures	----	1253
BW	Map depicting Jessup River - Gilmantown trail closures	----	1261
BX	Timothy Howard, PhD, CV	----	1291
CB	Aerial photo (leaf off), Wilmington Trail	----	1317
CC	Aerial photo (leaf off), Seventh Lake Mountain Trail	----	1305
CK	Map, Forest Preserve Lands with Class II Trails relevant to case	----	1250
CT	Photos	----	1259
CU	Aerial photo (leaf on) Seventh Lake Mountain Trail (USDA map)	1241	1310
CV	Gilmantown Trail Map (Focus Area 1) fragmentation assessment	1241	1329
CX	Seventh Lake Mountain Trail Map (Focus Area 2) fragmentation assessment	1241	----
CZ	Seventh Lake Mountain Trail Map 2 (Fragmentation Focus Area 2)second analysis	1241	----
DB	Wilmington/Cooper Kill Trail Map (Focus Area 3) fragmentation assessment	1241	----
DD	Aerial photograph, (leaf on), Wilmington Trail (USDA map)	1241	1322

C E R T I F I C A T I O N

I, Tracie Pamela Hilton, C.S.R, R.P.R., a Senior Court Reporter for the Unified Court System, Third Judicial District of the State of New York, do hereby certify that I attended and reported the foregoing proceedings; that it is a true and accurate transcript of the proceedings had therein to the best of my knowledge and ability.

Tracie Pamela Hilton

Tracie Pamela Hilton
Certified Shorthand Reporter
Registered Professional Reporter

Dated: April 10, 2017