



STATE OF NEW YORK
SUPREME COURT

COUNTY OF ALBANY

In the Matter of the Application of

PROTECT THE ADIRONDACKS! INC.,

Plaintiff-Petitioner, INDEX NO.
2137-13

for a Judgment Pursuant to Section 5 of Article
XIV of the NYS Constitution and CPLR Article 78,

-against-

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

Defendants-Respondents.

NON-JURY TRIAL

B E F O R E:

HON. GERALD W. CONNOLLY,
Acting Supreme Court Justice

VOLUME XIII

TRANSCRIPT OF PROCEEDINGS in the above-entitled
matter held at the Albany County Courthouse, Albany, New
York on Tuesday, March 28th, 2017 commencing at 1:35 p.m.

DEBORAH MEHM, CSR
Sr. Court Reporter

A P P E A R A N C E S:**For the Plaintiff:**

CAFFRY & FLOWER
100 Bay Street
Glens Falls, NY 12801
BY JOHN W. CAFFRY, ESQ.,

and

CLAUDIA BRAYMER, ESQ., and
P.O. Box 2369
Glens Falls, NY 12801

For the Defendant:

HON. ERIC SCHNEIDERMAN,
New York State Attorney General
BY: LORETTA SIMON, ESQ., and
MEREDITH LEE-CLARK, ESQ.,
Assistant Attorneys General.

1 THE COURT: Thank you folks. Please be
2 seated.

3 All set counsel?

4 MS. SIMON: Yes, Your Honor.

5 THE COURT: Dr. Howard come forward
6 please.

7 Good afternoon Doctor. You understand you
8 are still under oath?

9 THE WITNESS: Yes.

10 THE COURT: Go ahead Ms. Simon.

11 CONTINUED DIRECT EXAMINATION OF DR.

12 HOWARD BY MS. SIMON:

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

16 A. I created this.

17 Q. And what is it?

18 A. It is a page out of one of my affidavits and it
19 includes the Gilmantown pair of maps. The before and after
20 maps, as well as a legend for that figure, as well as a table
21 discussing the metrics that I used for my fragmentation
22 analysis.

23 Q. Are the two maps on that exhibit the same as what
24 has been admitted as Exhibit CV? You can look if you need

1 to.

2 A. Yes, they are.

3 Q. And does this depict the same trail study area as
4 Exhibit CV?

5 A. Yes.

6 Q. And that is Gilmantown?

7 A. Yes. That's correct.

8 Q. Does this document include your fragmentation
9 analysis for the Gilmantown study area?

10 A. Yes.

11 Q. Does it include the block and shape indexes that you
12 testified to before the lunch break?

13 A. That is right. The area of the largest block. The
14 shape index of that largest block, and then the shape -- the
15 average shape index of all of the blocks, which is two in
16 this case.

17 Q. And it also indicates the acreage that you testified
18 to for the blocks?

19 A. Yes.

20 Q. And does it indicate the percentage that you
21 testified to for each of the indexes?

22 A. Yes.

23 Q. Does it also state what you testified to in terms of
24 what the blue lines and the pink lines represent in terms of

1 trails?

2 A. Yes. I described that in the figure legend. That
3 is correct.

4 Q. When did you create this document?

5 A. In the fall of 2016.

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

8 A. I believe so. Yes.

9 MS. SIMON: I move to admit Exhibit BY in
10 evidence.

11 MS. BRAYMER: No objection.

12 THE COURT: BY is received into evidence.

13 (Defendants' Exhibit BY was received in
14 evidence.)

15 BY MS. SIMON:

16 Q. Dr. Howard, looking at all of your material in one
17 place. What do your metrics show overall with regard to
18 fragmentation in your Gilmantown study area?

19 A. So overall considering the plan that was -- the
20 before scenario and the plan that has a trail running through
21 the middle of this Gilmantown block. That would be the
22 Dunning Pond Trail. And then the after scenario is with the
23 new Gilmantown trail and the Dunning Pond Trail closed to
24 snowmobile traffic. All the fragmentation metrics. The

1 largest block size. The shape index of that largest block,
2 and the average shape index all actually prove in this
3 case.

4 Q. Thank you. Dr. Howard, I am showing you what has
5 been marked as Defendants' Exhibit CX for
6 identification. Can you identify this?

7 A. Yes, I can. It is a figure excerpted from my
8 affidavit again. This is we are moving up onto the Seventh
9 Lake Mountain Trail. And so this has the before scenario map
10 on the left hand side and the after scenario map on the right
11 hand side. With the before scenario having a suite of trails
12 that were closed to snowmobile traffic, and on the right hand
13 side has the Seventh Lake Mountain Trail that was created for
14 snowmobile traffic.

15 Q. Did you create this document?

16 A. I did.

17 Q. Did you use the same sources to create this document
18 as you did for the prior Exhibit CV?

19 A. I did. My source was Josh Clague.

20 Q. Did you use the same base map?

21 A. Yes. This is still the USGS topographic based
22 map. They don't give us, you know, location information.

23 Q. So what is the location information for this map?

24 A. Right. So this is the forest block through which

1 the Seventh Lake Mountain Trail crosses. Or goes through.

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

4 A. Yep.

5 MS. SIMON: I move to admit Exhibit CX into
6 evidence.

7 MS. BRAYMER: No objection.

8 THE COURT: Defendants' CX is received.

9 (Defendants' Exhibit CX is received in
10 evidence.)

11 BY MS. SIMON:

12 Q. Dr. Howard looking at Exhibit CX. What does the
13 black line depict in terms of the size of the study area?

14 A. Right. So, again, I created that black line from
15 sources such as roads data set and others, and the black line
16 in circles. That largest forest block through which the
17 Seventh Lake Mountain Trail travels. So that is my "study
18 area" and within that block then we can calculate the metrics
19 that I calculated for others. To give you an exact acreage I
20 would need to look at my affidavit.

21 Q. I would like you to tell me the exact acreage if you
22 can for the left hand map study area. Tell us what you are
23 looking at. Your affidavit?

24 A. I am looking at my affidavit from 8/24/2016. So

1 here we are talking a much larger block. So the before
2 scenario. The largest forest block is 89 thousand acres.

3 Q. And the after?

4 A. The after scenario is 85,600 acres.

5 Q. Thank you. You can put your affidavit away, unless
6 you need it again. On the left hand photo what do the pink
7 lines tell us?

8 A. The pink lines are snowmobile trails that were
9 tagged as being closed by DEC.

10 Q. Do you know what trails you have identified as those
11 pink lines on the left? The names of any of them?

12 A. The upper one is the Seventh Lake Loop Trail I
13 believe it is called. I think I took notes on the names of
14 the lower ones if you want me to look.

15 Q. You have notes in your bag?

16 A. I think I do. Yes.

17 Q. Where are those notes?

18 A. Handwritten notes which you guys know about I'm
19 sure.

20 Q. That is true.

21 A. I'm wrong. I don't have them. So no. I don't know
22 what the names are.

23 Q. You did mention the Seventh Lake Loop. Does that
24 have another name?

1 A. The Old Uncas Road I think is the top end of that
2 loop.

3 Q. Where is that on the map if you know?

4 A. Again we are talking about the left hand
5 panel. That is the pinkish lines, and those are the northern
6 western sort of loop and lines there.

7 Q. And on the right what does the blue line depict?

8 A. On the right the blue line is the Seventh Lake
9 Mountain Trail. So note that it actually follows, it
10 traverses to the northeast and then follows a very small
11 portion of that Seventh Lake Loop Trail.

12 Q. Can you tell by looking at the map on the right
13 where that would be? Could you indicate that?

14 A. Yes. So the trail -- if we start at the southwest
15 piece of that blue line it travels northeast and then it cuts
16 left. I think --

17 Q. That is where Old Uncas Road is? A portion of it.
18 Is that your testimony?

19 A. I think that's right. I think Old Uncas Road might
20 be the northern piece of this loop or might be the entire
21 loop. I'm not sure.

22 Q. Do you recall what your shape index study showed for
23 this study area?

24 A. Yes. I would have to look for the number. It does

1 improve from the before to after scenario. So let me check
2 the number. This is, again, from my affidavit of 8/24/2016.
3 So the largest block the shape index improves from 2.1. It
4 goes down, which is an improvement to 1.6. That is an
5 improvement of about 32 percent.

6 The average mean of all of the forest blocks goes
7 from a before scenario of 2.09 to an after scenario of
8 1.6. That is an improvement of about 31 percent also. The
9 real reason it improves so much is from the removal of those
10 snowmobile trails that travel to the interior of the
11 forest. Those southern trails there.

12 Q. Thank you. Dr. Howard, showing you what has been
13 marked as Defendants' Exhibit BZ for identification. Can you
14 identify that please?

15 A. This is a page out of my affidavit. It is the same
16 image we were discussing on the top. That is the left hand
17 and the right hand panel maps of the before and after
18 scenario, but this time it has the legend for that figure as
19 well as a table legend and a table describing those three
20 measures that I just described and just read out to you.

21 Q. And the maps, are they the same maps that are
22 depicted in your prior Exhibit CX?

23 A. Yes, they are.

24 Q. And you made this?

1 A. I made this.

2 Q. When did you make it?

3 A. In the fall of 2016.

4 Q. And the study area is the Seventh Lake Mountain
5 Trail area?

6 A. That's correct.

7 Q. And is this an accurate copy of the document?

8 A. Yes. I believe so.

9 MS. SIMON: I move to admit Exhibit BZ in
10 evidence.

11 MS. BRAYMER: No objection.

12 THE COURT: What exhibit is that?

13 THE WITNESS: BZ.

14 THE COURT: BZ is received into evidence.

15 (Defendants' Exhibit BZ was received in
16 evidence.)

17 BY MS. SIMON:

18 Q. Dr. Howard, what can you tell us about your
19 conclusions about fragmentation in this study area?

20 A. Well this time it is a little mixed in that the
21 Seventh Lake Mountain Trail cut off a little lobe to the
22 western lobe of this forest block, and thus you ended up with
23 a smaller acreage for the largest forest block. But you had
24 huge improvements in the shape index because of those trails

1 penetrating into the forest interior were closed for
2 snowmobile traffic. So it is mixed. We had a smaller
3 largest forest block size, but an improvement in the shape
4 index.

5 Q. For the shape index as listed on this chart. If I
6 recall you said the lower the number the better in terms of
7 the forest --

8 A. Fragmentation.

9 Q. Fragmentation?

10 A. That's correct.

11 Q. So in shape index largest block and shape index all
12 blocks area weighted mean those were reduced. Is that
13 correct?

14 A. That's correct. The shape index was reduced, and
15 thus that is an improvement in my forest fragmentation metric
16 in this case.

17 Q. Is there anything else you would point out for us in
18 this analysis that is relevant to your assessment?

19 A. No. Moving forward there were -- the plaintiff
20 submitted a critique about this assessment, which was an
21 interesting valid critique which was that I did not include
22 all of the trails in this -- in my fragmentation
23 assessment. The reason I didn't include them is because they
24 were unchanging from before to after, but I went ahead and

1 looked at that critique as well.

2 Q. Thank you. So I have shown you what has been marked
3 as Defendants' Exhibit CZ. Do you recognize this document?

4 A. Yes. I created this, and once again it is a figure
5 of two maps. Two panels with the left hand panel showing a
6 before scenario and the right hand panel showing the after
7 scenario. It is still the Seventh Lake Mountain Trail Forest
8 block, if we want to call it that. Sort of my assessment
9 area for the Seventh Lake Mountain Trail. The base map is
10 the same USGS topo map. It is unchanged. It is just there
11 for reference information.

12 Q. When did you make this map if you recall?

13 A. I made this later in the fall of 2016.

14 Q. And similar to the other maps that have been
15 admitted you indicated on the map trails. Did you not?

16 A. That's correct. So the critique was that I did not
17 include all the trails. All the snowmobile trails. And so
18 this time I did my best to add those to this so I could
19 recalculate those metrics.

20 I think a key addition is actually a road that goes
21 into Sagamore Lake and the Sagamore Camp. That road goes
22 from Raquette Lake from the north side of this forest block
23 and travels south into Sagamore Lake. And actually in the
24 before scenario it connects with Old Uncas Road.

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

3 A. Yes.

4 MS. SIMON: I move to admit Exhibit CZ into
5 evidence.

6 THE COURT: Ms. Braymer?

7 VOIR DIRE BY MS. BRAYMER:

8 Q. You just testified about the connection between
9 Sagamore Road and Old Uncas Road. Can you identify on your
10 map on CZ which one is Old Uncas Road?

11 A. If you look closely at the northwest portion of
12 this. The black line block. You will see Eighth Lake. You
13 can see the lake, and you can see it is mostly not obscured
14 by the block line. The word Eighth Lake. Right below that
15 is a purple line that travels east west. That is what I am
16 referring to as Old Uncas Road.

17 Q. The top part of the loop trail?

18 A. Yeah.

19 Q. And you have some squiggly blue lines at the bottom
20 of the right hand picture. Sorry. The southeast corner of
21 your forest block. So is it correct to assume that those are
22 either trails or roads?

23 A. Yes. That was my intent of adding them. Yes.

24 Q. On the left hand picture you can see those same

1 lines in purple?

2 A. That's right.

3 Q. Then there is also two to the west of that on the
4 southwest portion?

5 A. That's right.

6 Q. What are the names of those two trails or roads?

7 A. I can't tell you off the top of my head because it
8 really isn't relevant to me. My point is this big picture
9 assessment. And so I'm curious about the whole picture of
10 trails. Not the specifics of each individual one. And so I
11 have included the larger of all of these trails to evaluate
12 the assessment on the big picture and then -- I'll stop
13 there.

14 MS. BRAYMER: No objection.

15 THE COURT: CZ is received into evidence.

16 (Defendants' Exhibit CZ was received in
17 evidence.)

18 BY MS. SIMON:

19 Q. Dr. Howard, let's talk about this map before and
20 after. Is this, again to clarify, your consideration of
21 plaintiff's critique of your fragmentation and you added --

22 A. Right. So I added more trails. I added more trails
23 in response to that critique to see how that would -- how
24 the fragmentation metrics would respond to adding those

1 pieces.

2 Q. And what was your analysis in terms of, first, the
3 block and the acreage?

4 A. Okay. So I have to go to my affidavit to give you
5 exact numbers. So why don't I do that.

6 Q. Please do that. Thank you.

7 A. So now we are talking about my affidavit from
8 11/17/2016 and the before scenario. The largest block.

9 Q. Which is where on this map?

10 A. The left hand panel on this map. Now notice that we
11 have -- because of some of these crisscrossing roads the
12 largest block becomes smaller. So the left hand panel. The
13 largest block in the before scenario is 80,900 acres. Then
14 the after scenario. The right hand panel with the blue
15 lines. The largest block in the after scenario is 84,800
16 acres.

17 So actually with this addition an interesting thing
18 happened. Whereas in my before analysis we lost acres and so
19 the largest block decreased in size. Now we have an increase
20 in the largest block size because of the closing of that Old
21 Uncas Road. So in the previous scenario Old Uncas connected
22 with Sagamore Lake on the Sagamore Road. Then when that is
23 closed you now add a huge chunk of forest to the largest
24 block, and your largest block becomes larger. So it is

1 actually interesting fallout from adding the Sagamore Lake
2 Road and the hidden connection of the Old Uncas Road.

3 Q. Do you recall the percentage change then?

4 A. I will check my affidavit again. So the shape index
5 decreased a little bit from 2.89 to 2.7. So that is a six
6 percent change improvement. The area weighted mean. The
7 average of all of the shape index from all of the blocks
8 improved a little bit from 2.7 to 2.6. Again that is 3.2
9 percent.

10 Q. So after reviewing Mr. Signell's critique of your
11 fragmentation analysis and incorporating his what is your
12 conclusion?

13 A. So overall the big picture. Again big picture long
14 term assessment of what fragmentation is going on. What is
15 going on here with fragmentation with respect to snowmobile
16 trails.

17 Again, we are removing a few snowmobile trails and
18 stopping snowmobile travel on them. So that reduces the big
19 picture fragmentation. And we are adding a trail to Seventh
20 Lake Mountain Trail that goes along the edge of the block.
21 And so the big picture long term we would expect to see
22 improvement in the forest status. Status of this
23 forest. The condition of this forest.

24 Q. Thank you. Dr. Howard I have shown you what has

1 been marked as Defendants' Exhibit CG for
2 identification. Can you identify it?

3 A. Yes. This is a page out of my affidavit. This has
4 the map we were just discussing with the left hand panel and
5 the right hand panel. The before and after scenario of the
6 Seventh Lake Mountain Forest block. It includes my figure
7 legend for that figure, and it includes a table legend and it
8 includes a table that has the results of the three metrics
9 that I just discussed.

10 Q. And when did you prepare it?

11 A. In the fall of 2016.

12 Q. And is this an accurate copy of the document you
13 prepared?

14 A. I believe so. Yes.

15 MS. SIMON: I move to admit Exhibit CG into
16 evidence.

17 THE COURT: Ms. Braymer?

18 MS. BRAYMER: No objection.

19 THE COURT: CG is received into evidence.

20 (Defendants' Exhibit CG was received in
21 evidence.)

22 BY MS. SIMON:

23 Q. Dr. Howard, is there anything else you would add to
24 your analysis in Exhibit CG on the fragmentation in this

1 unit? It's not a unit. It is a study area.

2 MS. BRAYMER: Objection.

3 THE COURT: What is the objection?

4 MS. BRAYMER: The question is overly
5 broad.

6 THE COURT: Sustained.

7 MS. SIMON: I didn't hear what she said.

8 THE COURT: The question was overly
9 broad. It was designed to elicit some answer that
10 he might choose to give rather than an answer you
11 asked for.

12 Q. Dr. Howard, is there anything in this metric that
13 you have discussed. Some of it you discussed previously, but
14 is there anything that you didn't add to your fragmentation
15 analysis that you would like to add now?

16 MS. BRAYMER: Objection.

17 THE COURT: Sustained.

18 Q. Dr. Howard, do you have anything else to say on
19 fragmentation analysis on the Seventh Lake Mountain study
20 area?

21 MS. BRAYMER: Objection.

22 THE COURT: Sustained.

23 Q. Overall is your analysis that incorporating Mr.
24 Signell's critiques that the fragmentation analysis is

1 better? Improved or not?

2 A. Yes. Overall the big picture. Thinking about long
3 term effects on this forest block. I think we are seeing an
4 improvement using the measures that I calculated.

5 Q. Thank you. Showing you what has been admitted into
6 evidence as Exhibit 90 and 91. Are you familiar with these
7 documents?

8 A. I am.

9 Q. Could you take a look -- tell me what these
10 documents are, first of all?

11 A. This is part of the critique. Of Signell's
12 critique. One of the -- these are two figures. Two
13 maps. Exhibit 90 is the before scenario showing a 6,000 acre
14 forest block. And Exhibit 91 is the after scenario showing
15 that same block with a portion, the northern section of the
16 Seventh Lake Mountain Trail passing through it and breaking
17 up that block into smaller pieces.

18 Q. Where is this block that Mr. Signell studied in
19 relation to your map on Exhibit CG?

20 A. So this is a very small portion of my map. So the
21 eastern side of this map shows Sagamore Road traveling in
22 sort of a mostly northern southern direction. That is one of
23 the new pieces that I added in the map that I created.

24 And so on the one that I created Sagamore Road is

1 the either pink or blue line that travels from the north
2 mostly straight down to the left hand portion of this forest
3 block. Then as we were discussing that my pink or blue lines
4 then join -- I guess the pink line joins in with Old Uncas
5 Road, and Old Uncas Road is labeled in Exhibits 90 and 91
6 there as Sagamore Road connects with Mohegan Lake Road and
7 then joins Old Uncas Road as the southern border of this
8 6,000 acre forest block.

9 So I think -- so what I pointed out in my last
10 assessment is that the key piece here is that sure. Yes.
11 The Seventh Lake Mountain Trail does add new pieces to this
12 piece that the assessment is under. However, we are missing
13 the point that Old Uncas Road then gets closed in this "after
14 scenario" opening up this 4,000 acre block to the rest of the
15 monstrous forest that is below it.

16 Q. Could you describe where Old Uncas Road is on Mr.
17 Signell's map so we understand where it is labeled?

18 A. It is labeled Old Uncas Road and it is a part of the
19 southern border of this forest block. Thus, when you close
20 that long term that will return to forest and then you will
21 have connected forest to the much, much larger forest block
22 that is connected in the south.

23 So I think this is a valid assessment, but it is
24 missing a key point that this chunk. When we have the

1 closing of interior roads and the interior snowmobile trails
2 and the adding of snowmobiles trails to the edges you create
3 smaller blocks, but you also open up larger forest in the
4 interior.

5 Q. So does it change your analysis that we have already
6 discussed? Fragmentation in the greater unit of Exhibit
7 CZ?

8 A. Yes. I think my analysis responded to Exhibit 90
9 and 91 by including -- by including the roads that were
10 included that were talked about in Exhibits 90 and 91.

11 My only one addition or tweak to that is we need
12 to -- when we add trails we also need to, you know, remove
13 the trails that had been closed to snowmobile travel. And
14 thus I removed Old Uncas Road and that changes the
15 fragmentation status.

16 Q. Okay. Thank you. I believe we are on the last
17 study area for your fragmentation analysis. I have shown you
18 what has been marked as Defendants' DB.

19 A. I recognize it. It is mine. I created it. It is a
20 figure of two maps. A left hand panel and a right hand
21 panel. And that is the before scenario on the left hand
22 side, and the after scenario on the right hand side.

23 THE COURT: Slow down a little.

24 A. Sorry. This is for the Wilmington Trail.

1 Q. When did you create it?

2 A. In the fall of 2016.

3 Q. It was created in a similar way you created the
4 other fragmentation maps?

5 A. That's correct.

6 Q. Is it an accurate copy of the document that you
7 prepared?

8 A. Yes.

9 MS. SIMON: I move to admit Exhibit DB into
10 evidence.

11 MS. BRAYMER: No objection.

12 THE COURT: Exhibit DB is received into
13 evidence.

14 (Defendants' Exhibit DB was received in
15 evidence.)

16 BY MS. SIMON:

17 Q. Dr. Howard, these are going to be similar questions
18 to my other questions. The study area demarcated as I
19 understand it is in black. Is that correct?

20 A. That is correct. So the study areas. The forest
21 block through which the trail travels. And so the black
22 delineates the road around our area of interest. So that is
23 what I will call my study area.

24 Q. And on the left?

1 A. On the left we have the before scenario where we had
2 a snowmobile trail traveling mostly in an east west
3 direction.

4 Q. Excuse me. What color is that?

5 A. I'm sorry. That's pink.

6 Q. On the right?

7 A. On the right we have a blue trail that is the new
8 trail, as well as a piece of the trail that technically
9 didn't get closed for snowmobile travel.

10 Q. Do you recall the acreage on this study area?

11 A. No. I would have to check my notes.

12 Q. Thank you.

13 A. So here on the left hand side the largest block is
14 the piece north of the pink trail, and the before scenario
15 gives us 10,700 acres.

16 The largest block in the after scenario is the right
17 hand. To the right of the blue trail. East of the blue
18 trail. That after scenario is 12,300
19 acres. Interesting. So that is an improvement. So the
20 largest block size is an improvement from before to after.

21 Now interestingly the shape index is not. It is the
22 other way around. So notice that there aren't trails going
23 into the forest interior. There is just this big dividing
24 trail in the before scenario. So the shape index goes from

1 1.4 for the largest block in the left hand panel to 1.5.
2 That is worse, because it is a larger number in the right
3 hand panel. The reason that shape index increases is because
4 of that trail that still goes up to -- that goes up. Is it
5 the Cooper Kill Trail? Is that right? I think so. I can't
6 be asking you.

7 So anyway the trail travels east into the center of
8 the forest and that decreases the -- increases the
9 fragmentation status. The same goes for the area weighted
10 mean. The shape index of both blocks. The before scenario
11 is 1.4 and the after scenario is 1.49. Again, that is an
12 increase in it. So the fragmentation metric becomes worse.

13 Q. Thank you. Showing you what has been marked as
14 Defendants' Exhibit CA. Can you identify that?

15 A. This is a page from my affidavit, and it has the
16 same map or figure we were just discussing. The two
17 maps. It also has a figure legend. It also has a table
18 legend. It also has the actual table that I created that has
19 those numbers we were referring to.

20 Q. Once again when did you create this approximately?

21 A. When?

22 Q. When?

23 A. In the fall of 2016.

24 Q. Does it depict the same study area in Exhibit DB?

1 A. It does depict the same study area.

2 Q. It includes the information you just testified to
3 with regard to the metrics you measured?

4 A. That's correct.

5 Q. Is this an accurate copy of the document?

6 A. Yes, it is.

7 MS. SIMON: And I move to admit Exhibit CA
8 into evidence.

9 THE COURT: Ms. Braymer?

10 MS. BRAYMER: No objection.

11 THE COURT: Defendants' CA is received
12 into evidence.

13 (Defendants' Exhibit CA was received in
14 evidence.)

15 BY MS. SIMON:

16 Q. Dr. Howard, I want to point out or ask you a
17 question about where it says table three. This table overall
18 is for the Wilmington Cooper Kill Trail area. Correct?

19 A. Yes. I notice it does say Seventh Lake Mountain
20 Trail on it, and that is because whenever one is working with
21 a word processor you copy and paste. So I made a mistake and
22 it made it through the process.

23 Q. So for the record where it says table three could
24 you read what it should say?

1 A. It should say fragmentation metrics for the roadless
2 area holding the Cooper Kill Trail or the Wilmington Trail.

3 Q. Thank you. Dr. Howard, have you formed an opinion
4 within a reasonable degree of certainty as to whether the
5 closure of snowmobile trails in your areas of study, that
6 being the Moose River Plains Wild Forest and the Wilmington
7 Gilmantown Trail study areas, affected the fragmentation of
8 these forest areas?

9 A. So have I? Yes.

10 Q. Did you form an opinion?

11 A. Yes.

12 Q. And what is that opinion?

13 A. On the whole considering the closure of more
14 interior trails and the opening of more trails that tend to
15 go along the perimeter of our forest blocks. On the whole
16 they tend to improve the fragmentation status of the forest
17 blocks that I assessed. There are some small
18 improvements. Some small negative metrics, but overall the
19 metrics tended to improve. So fragmentation tended to be
20 improved with that practice of closing interior trails and
21 adding these trails to the edges.

22 Q. Thank you. We are done with that portion of the
23 fragmentation. Moving on to seedlings and saplings. Are
24 acorns biologically trees?

1 A. An acorn is a tree.

2 Q. Are seedlings and saplings biologically trees?

3 A. Yes.

4 Q. In an undisturbed forest do seedlings and saplings
5 typically survive to mature trees?

6 A. In forest dynamics the way seedlings and saplings
7 mature into trees. Yes. Some of them will mature into
8 trees, however others will not. That is part of a large body
9 of forest ecology literature where you begin with the cycle
10 where a tree will produce thousands, tens of thousands,
11 perhaps hundreds of thousands of seeds and only a few of
12 those seeds will germinate to seedlings. And only a few of
13 those seedlings will grow tall enough to be saplings. And
14 only a few of those saplings will then grow up to be trees.

15 Q. Is that impacted by a closed canopy?

16 A. Yes. So with canopy closure you still might get a
17 fair amount of germination of the seeds to seedlings, but
18 then survival rate for seedlings over the years is low. And
19 some seedlings stick around for a very, very long time and
20 may tolerate that shade of the canopy for many, many years
21 and tolerate as seedlings. But of the thousands of seedlings
22 out there you get a few dying each year and some stick around
23 but some don't make it. They are waiting for the canopy to
24 open up to respond and grow in the sunlight.

1 Q. Dr. Howard, did there come a time when I provided
2 you data from plaintiff's expert Stephen Signell regarding
3 stumps and counting of stumps on Class II trails?

4 A. Yes. You did.

5 Q. And did you have an opportunity to review that
6 data?

7 A. Briefly. Yes.

8 Q. Are you familiar with the application called the
9 Fulcrum app?

10 A. I am.

11 Q. Did I also ask you to review Mr. Signell's
12 affidavits in this case?

13 A. Yes.

14 Q. Did you read them?

15 A. I did.

16 Q. So did you also have an opportunity to hear Mr.
17 Signell testify here in court in this matter regarding the
18 protocol he used to determine the DBH of trees based on
19 ground level stump measurements?

20 MS. BRAYMER: Objection. There is no
21 foundation for parts of that question.

22 THE COURT: For what?

23 MS. BRAYMER: That he has knowledge of
24 parts of that question such as DBH.

1 THE COURT: I didn't hear you. That he has
2 knowledge of what?

3 MS. BRAYMER: Parts of the question.

4 THE COURT: Dr. Howard has testified that
5 he reviewed the testimony. Correct?

6 MS. BRAYMER: Yes.

7 THE COURT: Your objection is
8 overruled. You may answer.

9 THE WITNESS: Could you reread the
10 question please?

11 (Reporter read the pending question.)

12 A. I did have that opportunity.

13 Q. And Dr. Howard, to the best of your knowledge is Mr.
14 Signell's protocol to determine tree DBH, which is diameter
15 at breast height, from stumps the generally accepted protocol
16 in your field?

17 A. To be fair Mr. Signell said there is no generally
18 accepted protocol, and I think he is right. There is no
19 generally accepted protocol, and to expand a little bit
20 more.

21 There are tables and documents and manuals out there
22 that tell you, that give you an idea of what math to use to
23 estimate DBH of stumps cut a foot off the ground, because
24 that is where foresters usually cut trees. Is a foot or so

1 off the ground. So you measure diameters of stumps a foot
2 off the ground, and there are tables and formulas that allow
3 you to estimate what the DBH of that tree was.

4 The problem is there are not tables and formulas for
5 estimating what the DBH of a tree is for stumps cut at ground
6 level. So that is the difficulty. I fully recognize that
7 that was a problem and Signell handled it one way. I would
8 have handled it a different way.

9 Q. How would you have handled it?

10 A. I would have gone out and measured. I would have
11 gone in the adjacent forest and I would have measured tree
12 stumps at the ground of trees that are standing and measured
13 100 of them, and measured their stump diameter on the ground
14 as well their stump at DBH. And I would have gotten that
15 math and that formula and that table that I could have
16 calculated to then translate that to the stumps that didn't
17 have a tree attached to them.

18 So then once I figured out that formula I would have
19 done the science. I would have done the sort of experiment
20 to figure that out, and then I would have had a way to
21 estimate DBH of all of the stumps on the trail.

22 Q. Just to clarify. You would do this by going to a
23 portion of the woods off the trail?

24 A. Correct.

1 Q. And you would measure the trees?

2 A. Correct.

3 Q. At the base and then at another point?

4 A. I would have measured the trees at the base and the
5 trees at DBH. At the diameter. I would have measured the
6 diameter at breast height. So I have two measurements. The
7 real DBH diameter and the real stump diameter for a suite of
8 trees off trail in the woods, and ideally you would do it
9 also by forest type. You would do it for the different
10 forest types you pass through, and even more ideally you do
11 it for the different species of trees that you have. So that
12 you get a different formula to calculate DBH for the stumps
13 that you have alone.

14 So once you have done that. Once you have sampled
15 enough trees you get an idea of what the DBH should be for a
16 stump that is three inches in diameter or four inches in
17 diameter.

18 Q. Is that sampling a generally accepted protocol in
19 your field to gather information about a forest area?

20 A. Yeah. That is the approach that would be accepted
21 under peer review. Yes.

22 Q. Are there other factors or variables to consider in
23 trying to determine DBH from a stump?

24 A. Well the species. It does vary. How it was

1 grown. Was it open grown? Like grown in a clear cut or a
2 field? Or grown in the deep woods? And the soil
3 type. Whether it is very rich soil or a poor soil. Yes. So
4 yes there are, and those are a few of them.

5 Q. Thank you. And Dr. Howard, Mr. Signell testified
6 that he counted stumps with diameters starting at a quarter
7 inch and even smaller than one inch diameters. My questions
8 are these. Could you identify a tree by its bark?

9 A. Yes. In most cases.

10 Q. Could you identify a tree by its leaves?

11 A. Yes. In most cases.

12 Q. Could you identify a tree by its buds?

13 A. Yes.

14 Q. Could you identify a tree by its rings?

15 A. There are people out there that can identify trees
16 by their rings. Yes.

17 Q. Could you identify a tree from a photograph of a
18 stump less than one inch DBH? Diameter rather. Taken three
19 years after it was cut without seeing its bark, leaves or
20 buds?

21 A. That would be very hard, but perhaps possible. It
22 would be very difficult. I'm not sure I could.

23 Q. What are woody plants?

24 A. Woody plants are plants that have secondary

1 growth. By that I mean woody plants are plants that persist
2 above the ground level after a growing season. After usually
3 a period after a winter into summer. And secondary growth I
4 mean that they grow both up and out. And so every year as
5 the plant grows out its trunk has cell division and has cell
6 growth at the trunk and that continues out every year.

7 The interesting thing about this -- that is the
8 secondary part of secondary growth. Primary growth is up.
9 Secondary growth is out, and because we have seasons up here
10 cellular growth out is almost halted in the winter
11 time. Perhaps fully halted in the winter time.

12 Then in the spring time you get very large cells
13 that generate on secondary growth and then they taper off
14 again towards the fall. That is what makes a ring. Is the
15 changes in diameter of the cells from very large in the
16 spring to tiny, tiny, tiny and very much darker. So that is
17 how you can count the age of a tree is the rings are actually
18 the different sizes in the cells as they are being created in
19 that secondary growth every year.

20 Q. So do these woody plants have rings?

21 A. So woody plants have rings. Especially actually
22 particularly here where you have climates. If a tree
23 continues to grow and never experiences a climate it
24 continues to grow at the same rate, i.e. in the tropics you

1 don't have rings on trees in the tropics. But here in a
2 temperate forest woody plants, and that includes shrubs and
3 trees that have both primary and secondary growth. They tend
4 to have rings. Yes.

5 Q. What kind of shrubs or woody plants not including
6 trees are you aware of in the Adirondacks?

7 A. Well there is one that has been on discussion quite
8 a bit and that is known as either Witch Hobble or Hobble
9 Bush. We have talked about that.

10 Q. So does Witch Hobble have rings?

11 A. I haven't checked personally, but based on the fact
12 that it is a woody plant. That it has primary and secondary
13 growth. I'm pretty certain that it does have rings.

14 Q. Dr. Howard, would you be able to distinguish between
15 Witch Hobble stumps and tree stumps if they were less than
16 one inch in diameter looking at a photograph taken three
17 years after being cut?

18 A. I think from a photo that would be very
19 difficult. I think if you were in the field fully cognizant
20 of the fact that you might be seeing Witch Hobble stumps I
21 think the root patterns just under the soil might help you
22 distinguish between tree stumps and shrub stumps like Witch
23 Hobble. I think from a photo it would be very difficult to
24 do.

1 Q. Thank you. I have a couple more questions. Dr.
2 Howard, is ragweed an invasive species in the Adirondacks?

3 A. No. Ragweed is a native plant that does grow in
4 full light environments under -- usually in disturbed soil,
5 but it does not have invasive characteristics. It is not on
6 any of the state or regional invasive species lists.

7 Q. Also Dr. Howard in your position do you have access
8 to data with regard to invasive plant species in the
9 Adirondacks?

10 A. I do. Imap invasives program is a data base of
11 invasive species in this State, and that data base gathers up
12 information from partners throughout the state and has
13 information about invasives in it and that is actually part
14 of my program. The New York Natural Heritage Program. I'll
15 stop there.

16 Q. Did there come a time when I asked you to look up
17 the location of Japanese knotweed at the Santanoni historic
18 area?

19 A. Yes.

20 Q. Were you able to do that?

21 A. Yes.

22 Q. Where was the Japanese knotweed found at the
23 Santanoni historic area?

24 A. That is in my folder.

1 Q. Could you tell us what you are consulting?

2 A. I am consulting a printout from this data base. Two
3 records. I actually found two records.

4 The first was a record from 2004, and this is for
5 Japanese knotweed and the detailed location was the back side
6 of the Sears House. Another record from 2007, and the
7 detailed location was northwest of the main maintenance
8 building.

9 MS. SIMON: Thank you. No further
10 questions.

11 THE COURT: Ms. Braymer are you all set or
12 do you need a few moments?

13 MS. BRAYMER: Could I have a few minutes?

14 THE COURT: We will take a ten minute
15 recess.

16 (Recess.)

17 THE COURT: Thank you folks. Please be
18 seated.

19 Dr. Howard do you want to step back up?

20 Ms. Braymer please go ahead.

21 MS. BRAYMER: Thank you.

22 CROSS-EXAMINATION OF DR. HOWARD

23 BY MS. BRAYMER:

24 Q. Dr. Howard, is your employer a State agency?

1 A. I get my paycheck from the Research Foundation of
2 SUNY. So technically no. I believe the Research Foundation
3 is not a State agency.

4 Q. Ms. Simon asked you if you met with DEC and asked
5 you to work on this case and you agreed to do that. What did
6 DEC ask you to do?

7 MS. SIMON: Objection.

8 THE COURT: What is the objection?

9 MS. SIMON: It is hearsay.

10 THE COURT: Overruled.

11 A. Well I remember sitting at my desk and I remember --
12 excuse me.

13 THE COURT: This is your water.

14 A. I remember some of the folks from lands and forests
15 which is an office --

16 MR. CAFFRY: Excuse me. Could the witness
17 move the microphone?

18 THE COURT: I think the issue is more his
19 voice. Do you need another drink? Do you want to
20 take a moment?

21 A. And asking me. So they came over to my desk. Asked
22 me about the -- so we are ecologists. We are scientists,
23 and asked us whether we could address issues about the
24 effects of snowmobile trails on the forest lands.

1 So there were a few of us. Namely DJ Evans, our
2 director. Freddy Epinger (phonetic spelling) our chief
3 ecologist and myself that began, that entered into
4 discussions with the group about issues. I guess I'm not
5 really sure what your question is.

6 Q. My question was: What did they ask you to do?

7 A. What they asked me to do was developed over six
8 months. I entered three different affidavits, and all of
9 those go into different pieces of this big picture. Some
10 things I felt like I couldn't address. Some issues I felt
11 like would require a scientific study that I would not be
12 able to address. Some issues I felt like that is something I
13 could participate in, but I felt like I needed to stay within
14 the bounds of science that I had access to.

15 Q. What did you feel that you couldn't address?

16 MS. SIMON: Objection. Relevance. If he
17 didn't address it why is it relevant?

18 THE COURT: Overruled. Briefly.

19 A. One example would be the ecological effects of
20 snowmobile trails on forests. Every transportation corridor
21 that goes through a forest has ecological effects. Whether
22 they be from the tiniest, tiniest foot trail to the largest
23 super highway. They all have effects on forests. To
24 quantify what those effects are -- I will back up. That is a

1 gradation from very, very little effect of just a foot trail
2 to a little bit more effect to a heavily used foot trail
3 going to the high peaks. To a little bit higher to maybe --
4 to a higher impact trail. That extends all the way up to
5 dirt roads, paved roads and four lane roads.

6 That wide range of effects because it is such a
7 gradation it is very difficult to nail down effects of one or
8 the other. Or effects of something on the other.

9 So my response to: Do you know what the ecological
10 effects of a Class II connector trail are? I can't answer
11 it. You need a study to really address that. You need to go
12 out there and look at those kind of effects. I could address
13 things like potential fragmentation on our large forest
14 areas. I can address that.

15 Q. Ms. Simon also asked if you and she had met and
16 discussed clear cutting. What did she ask you to do?

17 A. Well I was a bit surprised that your affidavits were
18 coming out saying this is a clear cut. I was very
19 surprised. That's crazy.

20 So I read the affidavits and I said this is
21 something that I think is fair to respond to that and I
22 chose. I suggested I could respond to the idea that trails
23 are not clear cuts.

24 Q. I didn't catch the very last part?

1 A. That trails are not clear cuts.

2 Q. Okay. Thank you. I know you have mentioned several
3 times your affidavits. What were the dates of your
4 affidavits or do you remember how many you did? How many you
5 submitted previously in this case?

6 A. Three.

7 Q. Did you understand that those three affidavits were
8 important to the case?

9 A. Not necessarily.

10 Q. Did you understand that they were important and that
11 you were telling the truth in those affidavits?

12 A. Um-hmm.

13 THE COURT: Yes?

14 THE WITNESS: Yes.

15 Q. Were you telling the truth in your affidavits?

16 A. I believe so.

17 MS. SIMON: Objection.

18 THE COURT: Overruled.

19 A. I believe so.

20 Q. I have provided you three documents. Are these
21 copies of your affidavits that you have previously
22 submitted?

23 A. Yes.

24 Q. Dr. Howard, please answer yes or no. Would counting

1 all individuals in all size classes, including those
2 individuals termed seedlings, saplings and trees be a way to
3 count trees?

4 A. Yes.

5 Q. Do trees that are seedlings and saplings support the
6 forest ecosystem and its processes?

7 A. Yes.

8 Q. Can you explain that?

9 A. Well let's think of an ecosystem process. Fungus in
10 the soil aids, supports decomposition of organic matter in
11 the soil. And if you have seedlings and saplings those --
12 the roots of the seedlings and saplings sometimes can support
13 fungus. So that you actually have more living materials to
14 support the fungus in one way. That can also support
15 decomposition. That is just an example of an ecosystem
16 process that occurs, and when you have seedlings and saplings
17 around that helps out.

18 If you think about the long term transition of trees
19 over time from, as I mentioned earlier, from seeds to
20 seedlings to saplings and trees it is important to have
21 seedlings and saplings around to replace the trees in the
22 overstory.

23 Q. Can trees less than one inch DBH be decades old?

24 A. Sure.

1 MS. SIMON: I didn't hear the question.

2 (Reporter read the last question.)

3 A. Yes.

4 Q. Turning to the Wilmington Trail. Did you personally
5 visit this trail?

6 A. No, I did not.

7 Q. Referring to Defendants' Exhibit DD. How long is
8 the trail that is shown in that exhibit? Do you need it?

9 THE COURT: It should be here.

10 MS. SIMON: DB as in boy?

11 MS. BRAYMER: DD.

12 A. What is the question?

13 Q. This is the picture. Tell me what this is. You
14 tell me what this is.

15 A. DD is a photograph of the top end of Wilmington
16 Trail.

17 Q. So my question is: How long is this top end that
18 you are referencing in feet or miles or any measurement?

19 A. I would -- the photo is printed out on a specific
20 scale so we could measure that, but I can't answer you right
21 now.

22 Q. Did you create a map from the data represented in
23 DD?

24 A. Yes. I believe I did.

1 Q. Do you have that?

2 A. I created it with a different image and I have
3 other -- I certainly looked at it leaf on condition under
4 GIS. I don't recall whether I actually printed one and
5 passed it onto you guys.

6 Q. Looking at Exhibit DB, which I believe you testified
7 already is the Wilmington Trail. Do you have that?

8 A. Yes.

9 Q. In the right hand map this is the, this is depicting
10 after the Wilmington trail. The new Wilmington Trail was
11 constructed. Correct?

12 A. That is correct.

13 Q. The trail running east. The trail or road running
14 east west. What was the name of that? If you know?

15 A. That's the Cooper Kiln Pond Trail.

16 Q. Do you know if that Cooper Kiln Pond Trail Road
17 extends further to the east than what you have depicted here
18 on the right photo?

19 A. I can answer you from hearsay.

20 Q. I'm sorry?

21 A. Josh Clague testified this morning that --

22 MS. SIMON: Objection to his answer. Or
23 rephrase the question.

24 THE COURT: The objection is sustained.

1 Q. I will switch gears. Can you determine the length
2 of the trail shown in DD by looking at Exhibit DB?

3 A. Probably not. No.

4 Q. Can you tell us the length of the Cooper Kiln Pond
5 Trail that you have depicted on the map on the right of
6 Exhibit DB?

7 A. No. I don't have those numbers in front of me.

8 Q. Is it your understanding that the Cooper Kiln Pond
9 Trail continues past what you have depicted there?

10 A. So there is a pond at the end of that trail. It is
11 Cooper Kiln Pond. My understanding is they kept it open for
12 snowmobile travel to the pond, and then continuing down to
13 the road they closed for snowmobile travel. So to answer
14 your question yes. It remains open. It continues on beyond
15 there, but not as a snowmobile trail anymore.

16 Q. It continues on to -- do you know the name of the
17 road there that it intersects with?

18 A. I have in other notes possibly, but it doesn't
19 matter I don't think.

20 THE COURT: You don't know?

21 A. I will just say I don't know.

22 Q. Switching to Gilmantown, which I believe you
23 testified is shown in Exhibit BY.

24 THE COURT: Give me one second please.

1 (Pause.)

2 THE COURT: Thank you. Go ahead.

3 Q. The map on the right there does not show the pink
4 line that is on the left map which you previously identified
5 was the Dunning Pond Trail. Is it your understanding that
6 the Dunning Pond Trail is closed to all uses?

7 A. No.

8 Q. What is your understanding of the state of that
9 trail?

10 A. It is closed to snowmobile traffic.

11 Q. Is it open to other uses?

12 A. I believe so.

13 Q. Yet you did not put it on the map on the right hand
14 side?

15 A. Because my assessment was about snowmobile
16 traffic.

17 Q. With respect to Exhibits CC and CB.

18 A. So we are moving onto Seventh Lake?

19 Q. I believe CB is still Wilmington. Is that correct?
20 CB is Wilmington?

21 A. I haven't found it yet.

22 MS. BRAYMER: Could I have clarification
23 as to whether CB has been admitted?

24 A. I see CV as in Victor. CZ as in Zed. I have

1 CB. Yes. That is Wilmington leaf off condition.

2 Q. CB. Do you have CC?

3 THE COURT: CB as in boy has been
4 admitted. Yes.

5 MS. BRAYMER: And CC?

6 THE COURT: CC has been admitted.

7 MS. BRAYMER: Thank you, Your Honor.

8 A. I have CC and CB in front of me.

9 Q. Thank you. You testified previously that these both
10 show the forest and leaf off conditions. Is that correct?

11 A. That's correct.

12 Q. Are you able to analyze the condition of the tree
13 canopy from an image of a leaf off forest?

14 A. You can still see breaks in the canopy. So yes.
15 Under this type of imagery condition using your computer
16 looking at different scales you can see breaks in the
17 canopy. It is obvious with the lake and the road in CC and
18 with the road in CB.

19 Q. Please answer yes or no. When leaves come off do
20 they fall onto the trail?

21 A. Yes.

22 Q. And yes or no. Do the leaves when they fall down
23 obscure the ground?

24 A. No. I can explain if you would like.

1 Q. No. Sticking with both of those two exhibits.

2 CB. What is the length of the trail shown in that exhibit?

3 MS. SIMON: Which exhibit?

4 MS. BRAYMER: CB.

5 THE COURT: CB like boy. I will ask for a
6 clarification.

7 You are asking for the length. It seems
8 like there is two different maps showing
9 that. There is a photograph and a map. So which
10 one are you talking about?

11 MS. BRAYMER: I would like to know on the
12 photograph itself how long is that segment of the
13 trail.

14 A. I don't know, and that was not the point of putting
15 the map out. The length.

16 THE COURT: Hang on. Don't explain. Just
17 answer.

18 A. I don't know.

19 Q. In the inset map is the little red box showing more
20 than what is shown in the photograph?

21 A. No.

22 Q. I have the same questions for Exhibit CC.

23 A. No.

24 Q. With respect to the little red box it is showing

1 exactly what is shown on the photograph?

2 MS. SIMON: Objection. Asked and
3 answered.

4 THE COURT: Overruled. Go ahead. You may
5 answer.

6 THE WITNESS: Would you repeat the
7 question?

8 (Reporter read the pending question.)

9 A. Yes.

10 Q. And again for this segment on the photograph. What
11 is the distance of the trail being shown?

12 A. I don't know.

13 THE COURT: Ms. Braymer I will ask a
14 question. There is a scale on the bottom of CB like
15 boy and CC. Does that scale refer to the photograph
16 or to the diagram inset?

17 THE WITNESS: The photograph.

18 THE COURT: Thank you. Go ahead.

19 Q. I will move on from those exhibits. Dr. Howard are
20 trails linear features that can fragment a forest?

21 A. Yes.

22 Q. Do roads and linear corridors like trails through a
23 forest have detrimental impacts on the plants and animals
24 making up the forest ecosystem?

1 A. Yes.

2 Q. Do the impacts from linear corridors through a
3 forest extend into the adjacent forest?

4 A. You are not specifying a distance.

5 Q. I'm not specifying a distance. Correct.

6 A. Yes.

7 Q. Can you explain that?

8 A. As I have already mentioned, all trails have an
9 impact and the magnitude of impact is what matters. So
10 yes. There it might be millimeters. It might be meters. It
11 might be hundreds of meters the impact distance into the
12 forest, and I don't know how far the impact is but it is
13 definitely going to be something.

14 Q. Just to clarify. You did not conduct any kind of
15 ecological analysis on these trails?

16 A. That's correct.

17 Q. Are linear corridors through a forest a pathway for
18 invasive species?

19 A. Potentially. Yes.

20 Q. Can it take decades for canopy closure to take place
21 over a linear corridor that has been cut through a forest?

22 A. Yes.

23 Q. If all use whatsoever on a particular corridor is
24 stopped, how long does it take for a forest to completely

1 recover from the presence of that linear corridor?

2 THE COURT: Hang on. Can I hear that
3 again?

4 (Reporter read the pending question.)

5 A. It varies with soil type. Habitat type. Forest
6 type. Tree size. Size of the corridor and many, many other
7 features. It could be very short and it could be very long
8 but, again, we shouldn't be measuring time in terms of our
9 lifetime but in terms of the forest lifetime.

10 Q. Would one of the factors for recovery be the use of
11 the corridor by vehicles or snowmobiles?

12 MS. SIMON: Objection.

13 THE COURT: Let me hear the question
14 again.

15 (Reporter read the pending question.)

16 THE COURT: Hang on. Now I'm thinking. I
17 took too long. I was pondering the objection. Give
18 me a moment.

19 THE WITNESS: Sorry.

20 THE COURT: Give me the basis for your
21 objection Ms. Simon.

22 MS. SIMON: He didn't testify to use and it
23 is not part of the case.

24 THE COURT: I think we are talking about

1 recovery of the forest with regard to closed
2 snowmobile trails. Is that the relevance? The
3 reason you are asking this question?

4 MS. BRAYMER: Yes.

5 THE COURT: The objection is overruled. Go
6 ahead.

7 Do you want to hear the question again?

8 THE WITNESS: Well the problem is she is
9 referring to it looks like recovery and talking
10 about use. Not removal of use.

11 THE COURT: Listen to the question. You
12 don't have to explain. Just give your answer, and
13 if you can't you can't.

14 Go ahead. One more time with the
15 question.

16 (Reporter read the pending question.)

17 A. I can't answer that.

18 Q. I will refer you to your November affidavit. If you
19 would pull that out.

20 A. Okay.

21 Q. Looking at paragraph ten. In the middle of that
22 paragraph. Can you read the sentence that begins with
23 "trails once driven"?

24 MS. SIMON: Objection. It is not in

1 evidence. He shouldn't be reading from it.

2 THE COURT: Did you ask him to read it out
3 loud?

4 THE WITNESS: She did.

5 MS. BRAYMER: I did.

6 THE COURT: The objection is
7 sustained. I'm sorry.

8 Q. Dr. Howard, if trails were once used by vehicles or
9 snowmobiles would it take a significant amount of time for
10 them to recover once they were closed to that use?

11 A. Better asked. Yes. It could. Depending on soil
12 compaction.

13 Q. Would you agree that it can take decades for a
14 forest to completely recover from the presence of roads,
15 trails or linear corridors that were once used by vehicles or
16 snowmobiles?

17 A. Yes.

18 MS. SIMON: Objection. He did not testify
19 about roads. This is going beyond the scope of
20 direct.

21 THE COURT: Overruled. The answer will
22 stand.

23 MS. BRAYMER: Thank you for bearing with
24 me. Sort of disjointed.

1 Q. Dr. Howard, you testified about the methodology that
2 you used to measure fragmentation in your study. Is there a
3 specific name for that methodology that you used?

4 A. No.

5 Q. Can I refer to it as the shape index methodology?

6 A. Sure. That is perfect.

7 Q. Thank you. Yes or no. Does the shape methodology
8 that you used take into consideration specific forest habitat
9 within the forest blocks being analyzed?

10 A. No.

11 Q. Yes or no. Does the shape index methodology take
12 into consideration the actual characteristics such as age,
13 width or tread of a trail, of the specific trails or roads
14 within the forest block being analyzed?

15 A. Nope.

16 Q. Yes or no. Does the shape index methodology take
17 into consideration the specific use of the road or trail
18 within the forest being analyzed?

19 A. Can you read that back?

20 (Reporter read the pending question.)

21 A. Nope.

22 Q. In your methodology how did you determine what you
23 were calling the largest block?

24 A. I had that calculated by my computer program.

1 Q. Is it true that the largest block does not consider
2 the shape of the block?

3 A. That's correct. That's why I used shape index and
4 the largest block size.

5 Q. I will get there.

6 A. Okay.

7 THE COURT: Doctor just try to listen and
8 only answer the questions that are asked of you by
9 Ms. Braymer.

10 THE WITNESS: Sorry.

11 THE COURT: Go ahead.

12 Q. Could you have an octopus shaped block that is
13 larger than a perfectly circle block?

14 A. Yes.

15 Q. Between these two shapes which would have a better
16 shaped index?

17 A. The circular one.

18 Q. Going back. If you had two patches with the same
19 acreage and one shaped like an octopus and one shaped like a
20 perfect circle would they have the same block size?

21 A. Yes.

22 Q. If you had those two same patches. An octopus
23 shaped patch and the perfect circle patch. Would they have
24 the same shape index?

1 A. No.

2 Q. Between the largest block and the shape index which
3 one contains a measurement of fragmentation?

4 A. They both do.

5 Q. I will try to give you a hypothetical question. If
6 you have one perfect circle block --

7 MS. SIMON: Objection. A circle block is
8 confusing to me.

9 THE COURT: Is it confusing to you Doctor?

10 THE WITNESS: No.

11 THE COURT: I will overrule the
12 objection. If you want to rephrase it for Ms. Simon
13 you may, but you do not need to. Go ahead.

14 Q. If you have one perfect circle block cut in the
15 center and then you move the center line over ten feet is the
16 largest block a little bit bigger?

17 A. Yes.

18 Q. Then let's assume that you take the second block and
19 you subdivide it into 50 pieces. Does the largest block size
20 tell us anything about the fragmentation of the second
21 block?

22 A. No.

23 Q. So does block size tell you anything about the
24 degree of fragmentation of the original perfect circle?

1 A. No.

2 Q. Isn't it true then that of the three things that you
3 listed the mean shape index is the measure of forest
4 fragmentation for the entire block?

5 A. It is one measure. Yes.

6 Q. Of the three wouldn't it be the most important to
7 look at? The mean shape index?

8 A. I think they all are important.

9 Q. Isn't it true that the shape index methodology
10 allows you to take into consideration the presence of
11 interior trails that penetrate a forest block?

12 A. Yes.

13 Q. I'm trying to grab Exhibit BZ. I believe you
14 testified that your initial analysis of Seventh Lake Mountain
15 Trail did not include roads that penetrated into the forest
16 block. Is that correct?

17 A. No.

18 Q. For instance, did you take into consideration
19 Sagamore Road in your initial analysis?

20 A. Oh. Roads penetrating. That's correct. I did
21 not.

22 Q. That would be what is shown in Exhibit BZ. Your
23 initial analysis?

24 A. Yes.

1 Q. And then turning to Exhibit CG. Isn't it true that
2 you updated your analysis to include some of the roads and
3 that the positive results for mean shape index dropped
4 significantly?

5 A. Yeah.

6 Q. Isn't it true that when you updated your analysis of
7 the Seventh Lake Mountain Trail you still did not include
8 trails that continued to penetrate the forest block?

9 A. I looked at a few foot trails and I did not include
10 those. Perhaps I missed other larger trails, but I don't
11 think I did.

12 Q. What are the ones that you did not include?

13 A. I remember a foot trail going from the north. On
14 the northeast side. And I don't recall its name and I think
15 there are other foot trails as well.

16 Q. If you did not include those trails isn't it true
17 that your analysis did not take into account the cumulative
18 impacts of all of the trails and roads?

19 A. Well our focus was on snowmobile trails.

20 Q. So is that a yes?

21 A. Sure.

22 Q. If you did include those trails that still penetrate
23 the forest block isn't it true that the results would drop
24 even more?

1 A. But the change would be the same direction.

2 THE COURT: Just answer the question

3 Doctor.

4 A. I think you need to rephrase that question.

5 Q. Would the results drop even more? Meaning that the
6 index number would become worse for fragmentation purposes?

7 A. Yes.

8 Q. Can you say with a reasonable degree of certainty
9 that it would not be positive?

10 A. (No response.)

11 Q. I'm sorry. Let me rephrase that.

12 THE COURT: Go ahead.

13 Q. Can you say with a reasonable degree of scientific
14 certainty that it would still be a positive number if you
15 included all of the trails that penetrate the forest block?

16 A. Because they would be unchanging. Yes.

17 Q. Isn't it true that measuring a change in the size of
18 a roadless forest block is a simple but effective metric for
19 evaluating forest fragmentation?

20 A. Yes.

21 Q. And would you agree that fragmenting a large
22 roadless area of forest into smaller forest blocks would
23 lower the stability of the forest ecosystem?

24 A. Yes.

1 Q. Would fragmenting a large roadless area of forest
2 into four smaller blocks have adverse impacts on animal
3 species?

4 A. Potentially yes.

5 Q. Dr. Howard, you visited segment three of the Seventh
6 Lake Mountain Trail. Correct?

7 A. Yes.

8 Q. And did you visit the Gilmantown Trail?

9 A. Yes.

10 Q. Did you visit the entire trail?

11 THE COURT: Gilmantown?

12 Q. Gilmantown.

13 A. No.

14 Q. What part did you go to?

15 A. The western side where it goes along and then leaves
16 the road. And then the Dunning Pond Trail. So the
17 Gilmantown block I also visited. That was the trail that was
18 closed.

19 Q. On the new Gilmantown Trail. Were you on the new
20 Gilmantown Trail?

21 A. There is a part where it leaves the road that
22 actually is on a power line cut. So that is the part I
23 saw. I didn't go through the forest. No.

24 Q. Were all of the trees removed from that power line

1 corridor that you visited?

2 A. Yes.

3 Q. And were all of the trees removed from segment three
4 of the Seventh Lake Mountain Trail that you visited?

5 A. On the trail. Yes.

6 Q. You testified that the linear disturbance of the
7 Seventh Lake Mountain Trail was not enough to be a clear
8 cut. Correct?

9 A. That's correct.

10 Q. Isn't it true that linear corridors through a forest
11 can have impacts that are different from a clear cut?

12 A. Yes.

13 Q. Yes or no. Is it your testimony that there were
14 ecological impacts to the trail corridor on Seventh Lake
15 Mountain Trail from the removal of the trees and the
16 construction of the trail?

17 MS. SIMON: Objection. Beyond direct.

18 THE COURT: I will sustain the objection
19 partially because it is beyond direct. Because it
20 is directly testified that he could not give an
21 opinion as to the ecological impact. But he did
22 that generally. If you want to attempt to lay a
23 groundwork now for him to give an opinion with
24 regard to that question as your witness I will allow

1 you to do so.

2 MS. BRAYMER: I will move on Your Honor.

3 THE COURT: Okay.

4 Q. When you visited segment three of the Seventh Lake
5 Mountain Trail did you see any large grassy patches or
6 stretches on the trail?

7 A. Yes.

8 Q. Did you identify any of the grass species on segment
9 three?

10 A. I didn't. They were much more than grasses. There
11 were sedges also.

12 Q. I'm not sure you answered my specific question which
13 was did you identify any, and if so what species did you find
14 there?

15 A. I would have to look in my notes. Actually I do
16 have field notes that might answer that if you would like me
17 to check.

18 Q. With you right now?

19 A. Yes.

20 Q. Sure.

21 A. In one spot I found two grass-like species that were
22 probably on the trail. That might have been right next to
23 the trail. One was called brachyelytrum erectum. The other
24 was a sedge called carex intumescens. Those are all the

1 gramanoids I found at that spot.

2 Q. I'm going out on a limb here. What is the
3 difference between grass and sedge?

4 MS. SIMON: Your Honor, this is beyond the
5 scope of direct.

6 THE COURT: Overruled. You may answer.

7 A. Both are very large flowering plant families. There
8 are very, very many sedges in the forest and on
9 trails. There are very, very many grasses on trails and in
10 the forest. There they are different kinds of grasses and
11 sedges. Sedges might be more shade tolerant in some cases.

12 Q. Going back to the Moose River Plains Wild Forest in
13 general and the DEC's purportedly closed trails. Did you
14 visit any of those purportedly closed trails? The ones that
15 they are saying are now closed to snowmobile use?

16 A. No.

17 Q. Is it your understanding that portions of the
18 Seventh to Eighth Lake Loop Trail have been closed to all
19 uses?

20 A. Actually no. I know they have been closed to
21 snowmobiles, but I don't know what the full uses are. No. I
22 don't know.

23 Q. Did you conduct your fragmentation analysis with the
24 understanding that portions of the interior trail were going

1 to be closed to all uses?

2 A. No.

3 Q. I will refer to what has already been admitted as
4 Exhibit 29. Turn to page 114. Can you read what it says
5 under Seventh-Eighth Lake Trail? Do you see that section?
6 The third sentence. Can you read that third sentence?

7 A. "This trail will be maintained as a Class II trail."

8 Q. I think that is the fourth.

9 A. "The section between Eighth Lake and the Bear Pond
10 Road/Mohegan Lake will be maintained for foot, ski and biking
11 use."

12 Q. Is it fair to say that the administrative closure of
13 portions of the loop trail to snowmobiles doesn't actually
14 reconnect forest sections because the trail is still open to
15 other uses?

16 A. I can't answer that as stated.

17 Q. I will refer you to your November affidavit sworn to
18 on November 17th, 2016. If you look at paragraph nine on
19 page three.

20 A. Okay.

21 Q. You talk about the closing of a majority of the
22 Seventh-Eighth Lake Loop Trail. Isn't it true that the
23 entire trail has not been closed?

24 MS. SIMON: Objection. I think he answered

1 that. He doesn't know.

2 THE COURT: Overruled. I will allow
3 it. If you understood the question.

4 A. Yeah. Once again the discussion was related to
5 snowmobile trails.

6 THE COURT: Again? I didn't hear you.

7 A. My discussion here in the affidavit and today is
8 related to snowmobile trails. Not summer time usage.

9 Q. But does the summer time usage of the trail prevent
10 the reconnection of the forest sections because it is still
11 open to other uses in the summer?

12 A. Again, it is all relative. Which is why I said I
13 couldn't answer the last one.

14 Q. Is it fair to say that the trail corridor will
15 remain in much the same condition as it is now for as long as
16 the trail is being used and maintained in this manner?

17 MS. SIMON: Objection.

18 THE COURT: What is the objection?

19 MS. SIMON: This witness is not testifying
20 to the condition of trails in the Seventh Lake
21 corridor.

22 THE COURT: Overruled. You may answer.

23 A. It is fair to say no. It is fair to say it will not
24 be the same.

1 Q. Still in the Moose River Plains Wild Forest. Did
2 you visit the Lost Ponds Road?

3 A. Nope.

4 Q. Did you visit the Lost Ponds Trail or Lost Ponds
5 Extension?

6 A. Nope.

7 Q. What is your understanding of the current status of
8 those trails or roads?

9 MS. SIMON: Objection, Your Honor. I think
10 he has already testified he has not visited any of
11 these trails.

12 THE COURT: Overruled. If you know.

13 A. I don't know.

14 Q. I will refer you back to Exhibit 29. A list of
15 purportedly closed trails. I will refer you to letter J for
16 instance. Can you read that second sentence under letter
17 J?

18 A. "This road will remain open as a motor vehicle
19 road."

20 Q. To your knowledge is Lost Ponds Road depicted on
21 your after scenario on Exhibit CG, which is showing trails
22 and roads in the Moose River Plains Wild Forest?

23 A. I don't know.

24 Q. Referring to Exhibit 29, letter B. Bear Pond

1 Trail. To your knowledge is that trail depicted on your map
2 shown in Exhibit CG in the after scenario?

3 A. I don't know for sure.

4 Q. On Exhibit 29, letter G. Otter Brook Truck Trail.

5 A. I don't know.

6 MS. BRAYMER: Could I have a minute? I'm
7 sorry.

8 THE COURT: Of course.

9 Q. Dr. Howard on Exhibit CG. How much of the lands
10 included on that, on those two maps are private lands?

11 A. Oh. That's a good question. Very little bit I
12 believe.

13 Q. Within your black lined study area?

14 A. I think there is some. Yeah.

15 Q. And how much of the land inside the study area which
16 is depicted with the black line is wilderness area?

17 A. Actually I don't know the classification.

18 Q. Would you be able to identify on the exhibit over
19 here the map where your study area is located?

20 A. Possibly. Would you like me to go look?

21 Q. Sure.

22 MS. SIMON: Your Honor what is the
23 relevance of the classification?

24 THE COURT: Ms. Braymer.

1 MS. BRAYMER: I'm trying to identify what
2 portion of his study area is wilderness which is --

3 THE COURT: That was inherent in the
4 question. I didn't know the relevance though.

5 MS. BRAYMER: -- which is not subject to
6 snowmobile use at all.

7 THE COURT: So I'm still missing the
8 relevance.

9 MS. BRAYMER: That he is taking into
10 account a portion of the forest preserve that is not
11 relevant because snowmobile use isn't in that
12 area.

13 THE COURT: The objection is
14 sustained. Go ahead.

15 Q. I want to be clear about where Sagamore Road
16 is. Can you identify on your CG where Sagamore Road is
17 located?

18 A. It is the -- let's use the right hand panel. It is
19 the blue line starting from the north side of the study area
20 that travels south actually from Raquette Lake. You can see
21 the label Raquette Lake there. Travels south to the forest
22 interior.

23 Q. Then does it sort of -- the blue line sort of forks
24 off into two directions?

1 A. Yeah. I don't think that is called Sagamore Road
2 anymore.

3 MS. BRAYMER: Your Honor, I don't have any
4 other questions for this witness at this time.

5 THE COURT: Thank you Ms. Braymer.

6 Ms. Simon?

7 MS. SIMON: Nothing else.

8 THE COURT: All right. Thank you
9 Doctor. You may step down. You have your file
10 there.

11 MS. SIMON: Your Honor, I want to talk
12 about the schedule if I might?

13 THE COURT: Let's go off the record for a
14 moment.

15 Come on up to the bench folks.

16 (Bench conference was held off the
17 record.)

18 THE COURT: We are done for the day. You
19 are all set.

20 (Proceedings adjourned.)

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I, **DEBORAH MEHM**, Senior Court Reporter in the Unified Court System, Third Judicial District, do hereby certify that the foregoing is a true and accurate transcript of the proceedings reported stenographically by me before the HONORABLE GERALD W. CONNOLLY Acting Supreme Court Justice on Tuesday, March 28th, 2017 in Albany, New York.

DEBORAH MEHM, C.S.R.

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