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IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF OREGON

WESTERN WATERSHEDS PROJECT,)	
et al.,)	
)	
Plaintiffs,)	3:19-cr-00750-SI
)	
vs.)	June 28, 2019
)	
DAVID BERNHARDT, et al.,)	Portland, Oregon
)	
Defendants.)	

(Motion Hearing)

TRANSCRIPT OF PROCEEDINGS
BEFORE THE HONORABLE MICHAEL H. SIMON
UNITED STATES DISTRICT COURT JUDGE

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1 (June 28, 2019)

2 P R O C E E D I N G S

3 (Open court:)

4 THE COURT: We are back on the record in Western
5 Watersheds Project, et al., versus Bernhardt, et al.

6 So where are we?

7 MR. BECKER: Good morning, Your Honor. David Becker
8 for plaintiffs. We had a chance to talk with our clients, and
9 they would like to proceed with the full hearing today.

10 THE COURT: All right. Then as I said about an
11 hour-and-a-half ago, Mr. Becker, you may proceed, or
12 Ms. Brooks.

13 MS. BROOKS: Thank you, Your Honor.

14 Would you prefer that I stay here?

15 THE COURT: It makes no difference to me as long as
16 you speak into a microphone.

17 MS. BROOKS: Okay.

18 THE COURT: We have one up there; we have one here.

19 MS. BROOKS: In that case, I'll stay here for now.

20 May it please the Court. I'm Talasi Brooks for
21 plaintiffs. Your Honor, we have a proposal for how we think
22 might be a good way to run the hearing. We propose that we'd
23 like to start with a brief overview of irreparable harm. Then
24 we will call our witnesses to the stand. And after the Court
25 hears that testimony from all the parties, our witnesses and

1 Mr. Odell's witnesses, Mr. Becker will address the other
2 elements that we have to establish for injunctive relief under
3 Winter, and we will answer any other questions the Court may
4 have.

5 THE COURT: Although I do think it will be helpful
6 after we hear the testimony, including the direct and
7 cross-examinations, to hear to what extent, if any, those
8 witnesses show irreparable harm. So don't overlook irreparable
9 harm in the closing argument after the witnesses have
10 testified.

11 MS. BROOKS: Okay. Thank you, Your Honor. We will
12 make sure that we highlight the most important points when
13 that's done.

14 So to begin with, we have a few points that we think
15 are really important to emphasize. The first one is that
16 grazing hasn't started yet on the Mud Creek or Hardie Summer
17 allotments. Both of these allotments burned at least in whole
18 or in part in the 2006 in part in the Grandad Fire, which the
19 Hammonds were accused of setting to increase forage for their
20 cattle. These fires destroyed --

21 THE COURT: It was more than a few. The jury found
22 it, and so did the BLM.

23 MS. BROOKS: The BLM did, yes. The jury did not
24 convict, though, on that offense, and that's in the 2014 BLM
25 decision.

1 THE COURT: Right. The BLM based it on the testimony
2 and evidence presented at the trial.

3 MS. BROOKS: That's right.

4 So these fires that were set destroyed vast swaths of
5 sagebrush habitat that were designated as Priority Habitat
6 Management Areas for sage-grouse, and sage-grouse attendance to
7 the lek on the Mud Creek allotment has declined significantly
8 in the years since the fires.

9 Nevertheless, sage-grouse still like to use the
10 Mud Creek and Hardie Summer allotments for nesting and
11 brood-rearing habitats. Redband trout inhabit the headwater
12 streams on the Hardie Summer allotment. And the habitat has
13 been allowed some time to recover since 2014 when BLM decided
14 not to renew the grazing permit. But all of these gains to the
15 habitat quality could be lost in a single season if grazing is
16 reauthorized. Nevertheless, BLM has renewed this grazing
17 permit in 2019 under a categorical exclusion without a full
18 public NEPA analysis considering these effects.

19 As we stated in our reply brief on the preliminary
20 injunction, plaintiffs have shown three types of irreparable
21 harm. First of all, irreparable harm to their interests in
22 sustaining the level of ecological recovery that has occurred
23 and continuing it. Second, harm to their interests in
24 sage-grouse and redband trout persistence and recovery on the
25 allotments and elsewhere. And third, harm to their interests

1 in agency action that is informed by a full consideration of
2 environmental impacts with public input.

3 THE COURT: What was the first one you identified?

4 MS. BROOKS: Harm to their interests in sustaining
5 and continuing the allotments' ecological recovery.

6 So just to address that one, a few important facts:
7 The allotments have been allowed to rest for five years. As
8 Dr. Kauffman's testimony will establish and has established,
9 these gains could be destroyed in a single grazing season. And
10 the recovery is not complete. The Mud Creek allotment will
11 take at least 40 to 50 years of rest recover based on
12 Dr. Braun's third declaration, and the Hardie Summer allotment
13 will take at least 20 years, based on Dr. Kauffman's second
14 declaration. And Ms. McCormack, the defendants' witness, says
15 that sagebrush reestablishment might not occur for 50 to 100
16 years.

17 So Dr. Kauffman also states in his second declaration
18 that if recovery isn't achieved in the near future, it may not
19 be possible to attain recovery because of the effects of
20 climate change. So setting back the clock on the recovery that
21 has occurred is a really serious harm.

22 Second of all, plaintiffs have shown irreparable harm
23 to sage-grouse and redband trout would occur. Sage-grouse mate
24 on both the Mud Creek lek, which is the South Bridge Creek lek,
25 and the North Bridge Creek lek, which occurs relatively close

1 to the boundaries of the Mud Creek allotment.

2 Those sage-grouse likely use habitat on the Mud Creek
3 and Hardie Summer allotments for nesting and brood-rearing.
4 During that nesting and brood-rearing season, which kind of
5 goes through the summer and into the fall, sage-grouse depend
6 on forbs, insects, tall grasses, and riparian areas for hiding,
7 cover, food, and basic survival. And livestock grazing
8 destroys all of these elements.

9 Given the already reduced habitat qualities following
10 the Grandad Fire, grazing can cause the extirpation of the
11 Mud Creek lek, and the effects on that habitat that was burned
12 in that fire also make the additional unburned habitats that
13 are still present on the Hardie Summer allotment, in
14 particular, that much more important to sage-grouse. And so
15 the extirpation of the lek could in turn reduce connectivity
16 and genetic diversity in other sage-grouse populations.

17 Similarly, the redband trout need cold oxygenated
18 water and clean gravels for their life cycles, but livestock
19 are known to trample riverbanks and destroy riparian
20 vegetation, increasing water temperatures, and causing
21 sedimentation in the water.

22 Livestock can access all of the redband-trout-bearing
23 streams on the Hardie Summer allotment, and grazing will likely
24 cause harm to those streams. It is undisputed that those
25 effects would harm redband trout.

1 And finally, just a few points on the harm from
2 grazing without adequate NEPA analysis. This Court has already
3 previously recognized that harms from failing to complete
4 adequate NEPA can be irreparable when the agency commits itself
5 to an action before considering the effects, and that's not the
6 same as stating that there's a presumption that harm flows from
7 a NEPA violation, which is what the Supreme Court held was not
8 permitted in Winter.

9 Instead, it's just a recognition that when agencies
10 undertake unconsidered actions, they may commit themselves to a
11 course of action that makes subsequent NEPA analysis valueless
12 to the Court's decision process. That was explained in great
13 detail in Marsh.

14 So for that reason this Court and others have issued
15 injunctive relief to prevent harm to the environmental, and I
16 would add that those risks -- the risks to the environment
17 flowing from unconsidered action are especially pronounced
18 here, where it appears that the agency has never done any NEPA
19 analysis, specifically considering the effects of grazing on
20 these particular allotments. Now they're arguing that grazing
21 has to be allowed to continue despite the lack of adequate NEPA
22 analysis, and that's the exact type of harm that these cases
23 warn against.

24 With that, Your Honor, we would like to put our
25 witnesses on the stand.

1 THE COURT: All right. In a moment.

2 Any preliminary comments from defendants?

3 MR. ODELL: Your Honor, typically we would wait until
4 after the testimony has occurred.

5 THE COURT: Whatever you wish.

6 MR. ODELL: So if you have a preference, I'm happy
7 to --

8 THE COURT: Whatever you wish.

9 MR. ODELL: I will wait until after the testimony.

10 THE COURT: Very good. The plaintiffs may call their
11 first witness.

12 MS. BROOKS: Thank you, Your Honor.

13 Just as a matter of housekeeping, would you like us
14 to be laying foundation for the witnesses in terms of
15 credentials and for the exhibits we're going to use?

16 THE COURT: If you wish, with respect to credentials,
17 you may have about 60 seconds to explain their credentials.
18 I've read about their credentials in the paperwork. If you
19 just want to put it on the record for 60 seconds, you have 60
20 seconds to do that.

21 With respect to the exhibits, I don't think so. If
22 there is a particular exhibit that there is going to be an
23 evidentiary objection to, I'll let the opposing party raise the
24 objection and then, if necessary, we will talk foundation.

25 MS. BROOKS: Okay. Thank you, Your Honor.

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1 With that, plaintiffs would like to call
2 Dr. Clait Braun to the stand.

3 (The witness was duly sworn.)

4 THE CLERK: Would you please state your name for the
5 record, spelling your last.

6 THE WITNESS: Clait Braun. B-R-A-U-N.

7 DIRECT EXAMINATION

8 BY MS. BROOKS:

9 Q Thank you, Dr. Braun. Dr. Braun, I would just like to
10 take about 60 seconds to establish your credentials for the
11 Court. Could you describe your credentials to testify about
12 sage-grouse matters in the hearing today.

13 A I have a B.S. in soil science. That's typical with a
14 biology major. I have a master's degree in wildlife
15 conservation from the University of Montana, and I have a Ph.D.
16 in grouse science from Colorado State University at
17 Fort Collins.

18 Q And how long have you been studying sage-grouse for,
19 Dr. Braun?

20 A Since 1973.

21 Q About how many publications have you published on
22 sage-grouse?

23 A In the neighborhood of one-third of 300, so it might be
24 close to a hundred.

25 Q Okay. Thank you, Dr. Braun.

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1 MS. BROOKS: Your Honor, I would like to
2 qualify Dr. Braun as an expert.

3 THE COURT: That's state court stuff. We don't do
4 that in federal court.

5 MS. BROOKS: Okay.

6 BY MS. BROOKS:

7 Q All right. So, Dr. Braun, I think that you should be able
8 to see the map on your screen that was attached as Exhibit 3 to
9 your third declaration. This was produced by Oregon State
10 University through the SageCon partnership.

11 Based on this map, can you tell whether sage-grouse
12 are likely to be present on the Mud Creek and Hardie Summer
13 allotments?

14 A It is very likely that sage-grouse persist on the
15 Mud Creek allotment and are still quite happily using the
16 Hardie allotment.

17 Q And if sage-grouse are likely to be present in summer, is
18 it likely that they're using the habitat there for nesting and
19 brood-rearing?

20 A It's possible.

21 Q Dr. Braun, I would just like to go through a few basics
22 about sage-grouse habitat needs and the effects of grazing.
23 Could you describe for the Court what is a sage-grouse lek.

24 A A sage-grouse lek is a place where males congregate each
25 spring to display/to attract females for the purpose of mating.

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1 Q Why are sage-grouse leks important to the species?

2 A If you don't have breeding, you don't have a population.
3 They need to attract hens, and the way they do that is choose
4 selected sites wide open to display both calls and physical
5 displays to attract females to the lek so they have the
6 opportunity to mate with them.

7 Q And do sage-grouse return to the same lek sites?

8 A Normally, yes. In the hundreds and hundreds of bandings
9 of males, very few of them change locations between years.

10 Q Dr. Braun, can you explain how lek counts of males --
11 sage-grouse leks are used to estimate sage-grouse populations.

12 A Sure. Basically the recommendation is each lek should be
13 counted four times in a given spring in about weekly intervals.
14 A high count is taken then to estimate what the population base
15 might be; the "base" being the male segment of the population.
16 We also know that not all males attend leks at the same time
17 and are not available to be counted on any of the four days
18 that may be selected.

19 We also know that there are roughly two females to
20 every male in the spring population; thus, if you know the
21 number of males on the lek, you can estimate the minimum number
22 of females that come to a lek. These are described as hen
23 counts, which agencies then use to estimate the total
24 population in size. It is an estimate of population size.

25 Q And are those estimates exactly accurate?

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1 A There are lots of variation. The more counts you do -- if
2 you have four counts in the spring, accuracy increases. The
3 fewer counts you have for each lek each spring, the accuracy
4 decreases.

5 Q Okay. After leking occurs, how far from a lek do
6 sage-grouse typically nest?

7 A Females search the surrounding area for different miles.
8 Most females will nest between two and four miles from the lek
9 that they mated upon -- two to four miles. Some go further.
10 There was a record of 60 miles for one hen -- for a marked hen.

11 Q When is sage-grouse nesting season?

12 A Nesting, in Oregon, for example, can start in late March
13 and continues to early July, depending on when they've mated,
14 whether they've successfully hatched the first clutch or
15 failed -- if they've failed, if they renested.

16 Q And what habitat components are important to sage-grouse
17 during nesting season?

18 A Cover is No. 1. They need to be hidden from predators.
19 No. 2 is forbs. No. 3 would be grasses. Those are the three
20 key components. However, females will also select areas with a
21 view of where they want to raise their chicks; in other words,
22 where the moisture might be.

23 Q Does cattle grazing affect these habitat components?

24 A Timing of cattle grazing is critical. If you graze it
25 during the period when the hen is looking for nest sites, her

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1 nest site characteristically may change because of cattle
2 grazing. So cattle grazing is important because they can
3 remove the forbs and grasses that help protect -- that provide
4 the cover for the nest during incubation.

5 Q And when is sage-grouse brood-rearing season?

6 A Hatching in Oregon starts usually in late May and
7 continues into the first week of July. A lot of it depends
8 upon when the hen was bred and if she re-nested and how many
9 days she took to lay a normal clutch of eggs.

10 Q So does brood-rearing season then end in the first week of
11 July?

12 A That's the nesting season. Brood-rearing season continues
13 clear into September.

14 Q Okay. And which habitats components do sage-grouse need
15 during brood-rearing season?

16 A Brood-rearing season, they need moist uplands. If moist
17 uplands aren't present, the hens will then move very quickly to
18 find moisture, which can be along irrigation ditches, long
19 streams, any place where there is some type of green forage and
20 water.

21 Q Does cattle grazing affect those components that
22 sage-grouse depend upon during brood-rearing season?

23 A Cattle likes the same things as sage-grouse. They like
24 green forage and water.

25 Q Does sagebrush need to be present for brood-rearing

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1 habitat to be usable by sage-grouse?

2 A Initially, yes, because theoretically the hen is nesting
3 under a sagebrush bush. However, once the hens can move more
4 rapidly, hens will take them into alfalfa fields, potato
5 fields, a lot of different places. So during the brooding
6 period -- actually the late brooding period -- they can be any
7 place and not necessarily related at all to where the sagebrush
8 is.

9 Q Thank you, Dr. Braun. Can you describe for the Court your
10 experience working with sage-grouse in Oregon?

11 A In 1993, I was asked by Oregon Department of Fish and
12 Wildlife, ODFW, to help train their personnel in procedures to
13 describe the population structure of sage-grouse in Oregon.
14 Those efforts continued until 2013. I think I was 20 years
15 there. I was also a consultant in field investigations in
16 Oregon during that period at various times looking at the
17 specific situation across the ranges with sage-grouse in Oregon
18 by units.

19 Q So are you generally familiar with sage-grouse habitat and
20 sage-grouse population trends in Oregon?

21 A In general, yes.

22 Q So I'm hoping to pull up here a graph of sage-grouse
23 populations in the Steens PAC that was included at the chart in
24 Mr. Obradovich's second declaration.

25 Dr. Braun, what does this graph tell you about

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1 sage-group populations in the Steens PAC?

2 A The general trend was, when the counts first started --
3 and we need to realize that the counts, when they first
4 started, were very sporadic. They weren't counted every year.
5 In more recent years, they've been every year. But basically
6 the population increased until about 2005/2006 and then very
7 markedly decreased and fluctuated somewhat widely.

8 The mean is the black line. So the mean takes away
9 the high peaks, for example, but it still shows the same
10 trend -- an increase and then a decrease, and then we are down
11 to a much smaller number.

12 Q And what about the sage-grouse population of the Steens
13 PAC at this point, or at least as of 2018, based on that graph?

14 A It isn't what you want to see. It is low.

15 Q Are you familiar with the sage-grouse populations in the
16 vicinity of the Hammond grazing allotments?

17 A I haven't seen sage-grouse on Hammond grazing allotment.
18 I walked through the Hammond pasture, which is a crested
19 wheatgrass seeding, and I found no signs of sage-grouse.

20 Q So let's see -- I would just like to pull up this map
21 attached as Exhibit 4 to your second declaration that shows the
22 names and locations in reference to the Hammond grazing
23 allotment of the lek.

24 Do you recognize this map?

25 A Yes, I do.

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1 Q Which are the leks that are closest to the Mud Creek and
2 Hardie Summer allotments?

3 A It would be the North Bridge Creek No. 1 and North Bridge
4 Creek No. 2.

5 Q And which is the lek that's on the Mud Creek allotment?

6 A It's the North Bridge Creek No. 1.

7 Q Well, it looks like it is South Bridge Creek, right?

8 A I'm looking at the wrong end of the map. You're right.

9 It is the South Bridge Creek lek, which is essentially vacant.

10 Q Is it likely that birds that breed on these leks that are
11 close to the Mud Creek and Hardie Summer allotments are using
12 the two allotments as habitat?

13 A There isn't really any sage-grouse habitat left in the
14 Mud Creek allotment at the lower elevations. It has been
15 burned off. It is in very poor condition.

16 Q And that's based on your field visit to the allotment,
17 right, that you see that?

18 A Yes. I actually walked out onto the lek site, which we
19 couldn't really find, but it was there someplace.

20 Q And did you visit all of the habitat on the Mud Creek
21 allotment during that visit?

22 A No.

23 Q So is it possible that there is sagebrush elsewhere that
24 could be usable by sage-grouse?

25 A It is possible. The Oregon State University map indicates

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1 that there are patches of sagebrush -- live sagebrush in other
2 parts of the allotment.

3 Q And based on your knowledge of the populations on the
4 Mud Creek lek -- you say they're in bad shape. What are the
5 lek count trends like on the Mud Creek lek?

6 A The present count, I think, was two males this spring,
7 which doesn't consist -- which doesn't indicate a viable lek at
8 all. It has been much higher at one time in 2006.

9 Q And what do those trends show about sage-grouse
10 populations that are using the Hammond allotments, particularly
11 birds that mate on the Mud Creek lek?

12 A The population has collapsed.

13 Q And in your -- AND what do you believe is causing these
14 declines?

15 A In looking at the Mud Creek lek area itself, the habitat
16 has no live sagebrush. It has a preponderance of cheatgrass.
17 It has very few forbs. It is in very poor shape for
18 sage-grouse. Essentially there is no cover to hide them.

19 Q Do you think that these declines are concerning?

20 A As a population biologist, they are very concerning. In
21 looking at the Mud Creek lek itself, it's hard to see that one
22 coming back to life outside of a few passing birds.

23 Q Is it likely in your opinion that cattle grazing is
24 causing or contributing to these population declines on the
25 Mud Creek lek?

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1 A Yes, it is.

2 Q And so we just established that you visited the Mud Creek
3 and Hardie Summer allotments. I would like to pull up, if I
4 can, the map that was attached as Exhibit 1 to your third
5 declaration. This depicts, I believe, more or less where you
6 visited on the allotments, right?

7 A That is correct.

8 Q What did you observe when visiting the Mud Creek
9 allotment?

10 A I was shocked how bare it was. There was almost no
11 vegetation to speak of in terms of being able to hide a
12 sage-grouse, let alone a male sage-grouse or even a nesting
13 sage-grouse. It was really in poor condition.

14 Q And what caused those conditions?

15 A Most likely both grazing and fire.

16 Q Is it likely that -- okay. Sorry about that.

17 How long would you think that that lek site will take
18 to return to a pre-disturbance state?

19 A Not in my lifetime, because I'm a old guy. I would say in
20 a period of 40 to 60 years minimum.

21 Q And do you think that the area immediately surrounding the
22 lek is presently used by sage-grouse for nesting or
23 brood-rearing?

24 A No. I could find no sign of sage-grouse, period. There
25 isn't adequate cover to hide a sage-grouse anywhere near that

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1 lek site.

2 Q Could it be used by sage-grouse if sagebrush and forbs
3 were reestablished?

4 A Yes, it could, but it's going to take a long time; a
5 really a long time.

6 Q In your opinion, should this area be grazed?

7 A Not in the foreseeable future.

8 Q Why not?

9 A We need to reestablish forbs and grasses outside of
10 invasive grasses, such as cheatgrass. It is going to take time
11 for forbs and native grasses to become reestablished, if they
12 can be reestablished. It is questionable whether they even can
13 be. The habitat is not good.

14 Q Will grazing the allotment affect the likelihood of
15 wildfire?

16 A Grazing will increase cheatgrass, which will increase the
17 likelihood of wildfire.

18 Q If there is sagebrush with -- if there is sagebrush
19 habitat within four miles of the lek site, do you think that it
20 could be used for nesting or brood-rearing habitat by
21 sage-grouse that might mate on the lek?

22 A Yes. I think if the hens actually come to that lek, which
23 I would be very, very surprised, they could go move four miles
24 to actually nest successfully, hopefully, in good cover. It is
25 not likely they could hatch a brood successfully in the burned

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1 area of the cheatgrass area. They would have to nest someplace
2 where there's actually some live sagebrush.

3 Q Let's move on a little bit to the Hardie Summer allotment.
4 What did you observe when visiting the Hardie Summer allotment?

5 A I was pleased to see it. It was nice to actually see some
6 live sagebrush that had up to 40 percent canopy coverage. It
7 was very nice to see that. I thought it was very good. It had
8 a good component of forbs, a good number of native grasses, and
9 it also had some cheatgrass. But it was the best site I saw in
10 the whole trip.

11 Q To your knowledge has the habitat there burned recently?

12 A I think part of it has and part of it has not.

13 Q And is the habitat that you observed on the Hardie Summer
14 allotment likely presently used by sage-grouse?

15 A Yes.

16 Q And if so, during which season?

17 A Mostly for nesting and brood-rearing, even into early
18 fall, there should be some use there.

19 Q Is the habitat quality on that allotment better or worse
20 than the habitat quality on other allotments you may have
21 visited?

22 A In Oregon?

23 Q In the Hammond allotments.

24 A It is the best that we saw.

25 Q And how did the condition of that habitat affect its

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1 importance to sage-grouse?

2 A Because of the amount of reasonably good habitat there, it
3 is keenly important to sage-grouse. It may be the best area
4 there is to actually have brooding and nesting to produce
5 chicks.

6 Q And how would grazing this habitat during summer
7 brood-rearing season affect the quality of the habitat?

8 A It is going to decrease the amount of grasses and decrease
9 the amount of forbs. You could get some -- depending on
10 whether the cows are moving in groups or not, you could
11 actually have some loss of live sagebrush.

12 Q And how would livestock grazing affect the presence of
13 cheatgrass on the allotment?

14 A It will increase the presence of cheatgrass.

15 Q And if cheatgrass increases, would that affect the
16 likelihood of wildfire?

17 A Yes.

18 Q How so? Would it make it more or less likely?

19 A Cheatgrass would make it more likely to burn.

20 Q And how would those effects impact sage-grouse?

21 A It would be very negative.

22 Q Did you see all of that allotment during your site visit?

23 A No.

24 Q And you stated that other portions of the allotment may
25 have burned in the 2006 fires. Do you believe the condition of

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1 the portion that you saw is representative of conditions of the
2 whole allotment?

3 A No.

4 Q And how does that affect your assessment of the value of
5 the habitat on the portion that you saw?

6 A It makes the value of the habitat -- the portion I saw --
7 highly important.

8 Q Okay. So I would like to move on a little bit to talking
9 about habitat connectivity and fragmentation. Dr. Braun, how
10 are sage-grouse affected by habitat fragmentation?

11 A You need to maintain gene flow in a population. To
12 maintain gene flow in a population, you have to have
13 connectivity. That's across the range in the West. It is not
14 just Oregon. It is everywhere now. But lacking connectivity,
15 each of the populations gets smaller. As each population gets
16 smaller, it has more risk of being lost permanently. It is a
17 major problem across the West, and it is the same problem in
18 the Steens even.

19 Q Dr. Braun, could livestock grazing cause habitat
20 fragmentation?

21 A Absolutely.

22 Q Dr. Braun, this map was attached, I believe, to your
23 second declaration. Could you tell me what it depicts.

24 A It depicts sage-grouse. It depicts the Hammond allotments
25 riparian systems, potential lek sites in the black spots, and

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1 it depicts already habitat and a few other things -- boundaries
2 and other things and even the refuge.

3 Q And if you look around all of these little black dots and
4 you can see the Hammond allotments around the green area with
5 the Bridge Creek Wilderness Study Area, how would losing those
6 leks or losing the habitat in that area affect the health of
7 the species regionally?

8 A Each piece is very important. Any piece that you lose
9 makes everything else more important. Thus, all the pieces
10 should be maintained in good condition. Many of the pieces
11 that you see there are not in good condition at all for
12 sage-grouse. So consequently, the pieces that do have live
13 sagebrush should be maintained and should be protected.

14 Q Dr. Braun, are you familiar with BLM's 2018 Rangeland
15 Health Assessments for the Mud Creek and Hardie Summer
16 allotments?

17 A In general.

18 Q So I would like to pull up the Mud Creek allotment
19 Rangeland Health Assessment and turn to page 3. Does this show
20 that the Mud Creek allotment is meeting all of the Rangeland
21 Health standards?

22 A No, it does not. It shows that it does not meet all of
23 the Rangeland Health standards.

24 Q It shows -- it seems like it shows that it is not meeting
25 Standard 5. And what is Standard 5 intended to measure?

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1 A Standard 5 is primarily to measure the value of the area
2 for endangered species, species that are local, high-priority,
3 or threatened species.

4 Q And do you remember from your review of this assessment
5 what it says is the causal factors for this?

6 A It is hypothesized that a number of different factors are
7 involved with that, including cattle grazing, including
8 cheatgrass, including invasive junipers, for example.

9 Q Well, it actually says -- if you'd go down, Dr. Braun, to
10 the second-to-last sentence here on page 3. Could you read
11 that sentence for me.

12 A "Grazing is not a causal factor for Standard 5 not being
13 met"?

14 Q That's right. That one.

15 A I disagree with that.

16 Q That's what I was going to ask you about. Why do you
17 disagree with that?

18 A My thoughts are a major impediment to sage-grouse recovery
19 across the West, the major reason why sage-grouse are in dire
20 straits, livestock do a number of different things to
21 rangeland. Some of them are not positive for sage-grouse.

22 Q Okay. I would like to pull up the Hardie Summer 2018
23 Rangeland Health Assessment, if I could; if we could find it
24 here. Scroll down to page 3. So this here is also the
25 standards assessment for the Hardie Summer allotment. Does it

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1 show that all the standards are being achieved?

2 A It does not.

3 Q And does it show that in particular it is meeting
4 Standard 5?

5 A No, it does not show that it is meeting Standard 5.

6 Q And what does it say are the causal factors for failing to
7 meet Standard 5?

8 A "Encroaching juniper, habitat loss, threat of wildfire by
9 treating invasive annual grasses."

10 Q And does it say here that past or current grazing are
11 causal factors for current habitat conditions?

12 A The final sentence reads, "Neither current nor past
13 grazing practices are a causal factor for current habitat
14 conditions," which is not true.

15 Q And why is that not true?

16 A Because it impacts the livestock grazing on forbs and
17 grasses and also on sagebrush.

18 Q Okay. So let's move on to the grassing permit.

19 Dr. Braun, are you generally familiar with the 2019 grazing
20 permit issued to Hammond Ranches?

21 A In general, yes.

22 Q And is this that grazing permit?

23 A It seems to be.

24 Q Okay. Does this permit restrict grazing to protect
25 sage-grouse?

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1 A Not really. When you look at turnout dates of May 16th,
2 1 April twice, and even 1 July on the Hardie Summer, that's not
3 positive for sage-grouse at all.

4 Q Would you say that this grassing permit only allows for
5 proper grazing?

6 A There is no evidence that the grazing is proper.

7 Q What is proper grazing scientifically?

8 A Scientifically proper grazing is anything that helps
9 withstand the vegetation to retain resilience. In other words,
10 it's usually less than 30, 32 percent according to range
11 science; according to Dr. Holechek, for example. So any
12 grazing that reduces the vegetation to less than 35 percent
13 would be very negative. And so if you -- well, I didn't say
14 that correctly. Any grazing that reduces vegetation cover from
15 the NRCS measure of 50 percent or what other agencies find to
16 be 45 percent would be negative for sage-grouse.

17 Q Is 50 percent utilization proper grazing?

18 A No.

19 Q Do you know whether -- did BLM prepare a NEPA analysis --
20 a categorical exclusion in conjunction with the grazing permit
21 issuance?

22 A State that again, please.

23 Q Dr. Braun, Mr. Becker would like to ask also -- before we
24 go off of the utilization standards, I believe in saying that
25 the 30 percent-ish utilization that's proper, in defining that

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1 number, you are relying on Holechek?

2 A Yes, I am. And Holechek is relying upon a series of
3 studies from across the West and Southwest and Midwest to
4 establish that level of grazing.

5 Q So does that number relate just to -- does that relate to
6 vegetation or does it relate to what's proper for sage-grouse?

7 A It relates to what's proper for plant growth.

8 Q Okay. Thank you.

9 Moving on to the NEPA analysis, the categorical
10 exclusion. This is a categorical exclusion that BLM applied.
11 In your judgment, Dr. Braun, based on your review, do the
12 permit and categorical exclusion adequately consider the
13 effects of livestock grazing on sage-grouse?

14 A No, they do not.

15 Q Why not?

16 A They don't take into consideration what sage-grouse
17 actually need to survive in terms of healthy native forb-grass
18 community, native sagebrush-plant community. Those just really
19 aren't there. You look at the various functions. It just
20 isn't realistic in terms of what actually sage-grouse need in
21 the field.

22 Q Do they consider the effects of grazing during nesting
23 season?

24 A I don't recall that they do.

25 Q How about during brood-rearing season?

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1 A I don't recall that they do.

2 Q And do they describe the lek status -- the status and
3 trends of the Mud Creek lek?

4 A I'm sure they studied the location of the lek that once
5 existed there.

6 Q Do they talk about the number of birds attending that lek,
7 though?

8 A I don't believe they do.

9 Q Dr. Braun, in your professional opinion, how long will it
10 take these allotments to recover from the effects of fire and
11 cattle grazing?

12 A Once a burn, plus grazing, it's 40 to 60 years. The
13 higher elevations will take fewer years. The lower elevations
14 will take more years.

15 Q And as they recover, are they potentially serving as
16 habitat for sage-grouse?

17 A Not unless they have live sagebrush.

18 Q And will resuming grazing on these allotments make the
19 habitat better or worse?

20 A Continued grazing will make it worse.

21 MS. BROOKS: Okay. Thank you, Dr. Braun.

22 THE COURT: Cross-examination.

23 MR. ODELL: Thank you, Your Honor.

24

25

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1 CROSS-EXAMINATION

2 BY MR. ODELL:

3 Q Good afternoon, Dr. Braun. It's a pleasure to see you
4 again. It was nice to meet you out in the field last week. So
5 good to see you again. If for any reason you don't understand
6 one of my questions or need clarification, please don't
7 hesitate to let me know. I will be happy to clarify for you.

8 I just wanted to start, if I could, with a statement
9 that I believe you made in your direct testimony about
10 nest-site timing, and I wonder if I could ask you to be a
11 little more specific on that. I think you said that's defined
12 by when hens would look for nest sites. Could you specify when
13 that usually occurs?

14 A Nesting in Oregon starts a wee bit earlier than it does in
15 some other states. Hens start nesting in Oregon -- looking for
16 nest sites in late March, and they will continue nesting until
17 early July when the last clutch that we have documented
18 actually hatches. So that's the timing for hens.

19 Theoretically most hens will start nesting in April. We know
20 for a fact that's not true in Oregon. Some actually nest
21 earlier; some actually nest later.

22 Q Thank you. I just wanted to ask you if I could turn your
23 attention to your third declaration that you submitted in this
24 case. In paragraph 19, you make the statement that you
25 consider the Mud Creek allotment to be irreparably and likely

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1 permanently damaged?

2 A Yes, that's correct.

3 Q Could you elaborate on that by what you mean.

4 A It is a mass of cheatgrass, non-native forbs, no
5 sagebrush. It is going to take more years than you can count
6 to restore it to a useful condition for sage-grouse. It is
7 irreparably damaged. It might be a hundred years, but it is at
8 least 40 to 60.

9 Q Okay. Thank you.

10 THE COURT: That's paragraph 19?

11 MR. ODELL: That was paragraph --

12 THE COURT: 13?

13 MR. ODELL: It's 19 in the third declaration of
14 Dr. Braun.

15 THE COURT: Yes, I have it.

16 MR. ODELL: Document 58.

17 THE COURT: The similar topic is also discussed in
18 paragraph 20.

19 MR. ODELL: Yes. That's correct. Thank you,
20 Your Honor.

21 BY MR. ODELL:

22 Q Could you please pull up Docket 41 at page 10. Can you
23 see that graph on your screen, Dr. Braun?

24 A Yes, I can.

25 Q Are you familiar with what that graph shows?

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1 A Yes, I am.

2 Q Could you please describe what you believe it depicts.

3 A It depicts a trend in sage-grouse from 1995 to 2018. I
4 caution everybody to understand that the counts weren't
5 standardized, and they weren't conducted every year in the
6 early 1990s -- 1995 to 2000 until about 2006 -- and so there
7 are very incomplete counts in that period.

8 Q Okay. Thank you for clarifying that. Would you say that
9 there is a fairly large degree of variability across the years
10 in the lek activity in the Steens population based on this
11 graph?

12 A Not only for the Steens population, but every population.
13 We need to understand that there is a lot of variation in why
14 males go to a lek and why a lek exists to start with. There is
15 a lot of things that go into that. It could be ecological
16 conditions. It could be site conditions. It could be even
17 when the encounter arrived or didn't arrive. It is a
18 tremendous amount of variation.

19 I cited, I think, three different publications that
20 have measured that variation over time. But one has to be
21 cautious about lek count. That's why I mentioned earlier that
22 we recommended four counts at weekly intervals to get the best
23 estimate of how many males might be there. Many of these leks
24 reported here, for example, they were only counted once, and so
25 the data are very constrained.

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1 Q And would you say there is some degree of consistency
2 across the population when you look at the mean for the
3 five-year period in terms of when the lek counts seemed to be
4 increasing and when they seemed to be decreasing across the
5 population for the leks?

6 A The mean is just an average of the highs and the lows, and
7 so it should reflect the highs and the lows.

8 Q And then how do you account for the spike, if you can, in
9 the early 2000s that's depicted on that graph?

10 A I wasn't there to make the count. I have no idea why it
11 spiked.

12 Q Is it your understanding that there was active grazing
13 going on in this area in the Steens population in the early
14 2000s when that spike occurred?

15 A I understand that grazing was a common use in the Steens
16 prior to about 2006.

17 Q Okay. I would like to turn your attention to paragraph
18 32, if I could, in your declaration.

19 THE COURT: Which declaration?

20 MR. ODELL: Third, Your Honor. I should be more
21 specific. It is on page 9 of the third Braun declaration.

22 BY MR. ODELL:

23 Q In that paragraph, Dr. Braun, you have a statement that
24 says, "Juniper-dominated sites are not secure for survival,"
25 and then in parentheses, "from predation of sage-grouse."

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1 Could you in that context explain what you mean by a
2 "juniper-dominated site"?

3 A Any site that is a natural sagebrush site that has juniper
4 tends to be not what you want. In other words, it is being
5 impacted negatively by juniper encroachment. Juniper
6 encroachment normally occurs when grasses are removed and you
7 expose the bare soil. That's when you get juniper established
8 at the range sites. In general, once you have juniper invasion
9 entering a range site, the ability of sage-grouse to use those
10 sites decreases.

11 Q Is there some threshold that's generally accepted in the
12 scientific community as to when sage-grouse would start to
13 avoid an area that otherwise might be suitable sage-grouse
14 habitat if juniper are in the area?

15 A It depends on each site. Each site is different. There
16 is no consensus as to when it starts. Sage-grouse will start
17 avoiding trees as soon as trees get tall enough to support a
18 raptor, a hawk, or something that's there to eat them. So
19 avoidance cans of sagebrush sites that have juniper is a slow
20 progression over time. Over time you get no sage-grouse at all
21 in those juniper-dominated areas.

22 Q Are you familiar with the paper by John Severson, et al.,
23 published in 2016 in the Journal of Wildlife Management showing
24 that the relative probability of nesting was negatively
25 associated with anything greater than a 3 percent amount of

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1 conifer within 800 meters of a nest suit?

2 A I'm familiar with the paper, as I read it when it first
3 came out, but I haven't pursued looking at the details of it
4 because I wasn't involved in that study.

5 Q But you have no reason to dispute the findings of that
6 study, do you?

7 A That study is in Lakeview, Oregon, and I think you have to
8 be careful with how you interpret those data. I would have to
9 review it again to actually comment about the data within it.
10 But I know where it was conducted, and I know the area. I have
11 been in the areas at Lakeview looking at the juniper
12 encroachment.

13 My general view -- in the late 1990s -- was that any
14 juniper removal would be positive for sage-grouse. Now,
15 whether that holds up over time is questionable. And I
16 question right now whether there is actual data to document or
17 to prove, so to speak, that manipulation of juniper is really
18 benefiting sage-grouse. I want to believe it is, but I want to
19 see the data.

20 Q But it is your testimony, I believe, or I'm going to ask
21 you to clarify that a relatively small percentage of juniper in
22 an area could negatively affect the ability or the desirability
23 of a sage-grouse to want to nest in particular site. Is that
24 fair? It's a relatively small amount?

25 A I'm not sure what "relatively small" is. But sage-grouse

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1 are going to generally avoid nesting anywhere near juniper.
2 Now, "near," we can define that as -- is it 100 meters? Is
3 that 200 meters? Is that half a kilometer? Who knows?

4 Q Okay. Are you aware that there has been no grazing on the
5 Mud Creek allotment for the last five years?

6 A I'm aware that there have been some years of no grazing,
7 yes.

8 Q And the same with Hardie Summer? You are aware that has
9 not been grazed in the last five seasons?

10 A I'm aware there has been no grazing for some years, yes.

11 Q Thank you. I just wanted to make sure of that.

12 In that light, could you comment on -- let me take
13 you through this question, if I can.

14 If I could turn to paragraph 36 of the third
15 declaration, Dr. Braun, which is on page 10.

16 THE COURT: All right. Internal page 10; CM/ECF
17 page 11.

18 MR. ODELL: Sorry.

19 THE COURT: I'm mainly talking to myself for future
20 finding reference. Frankly, all I really need is just the
21 paragraph number.

22 MR. ODELL: Thank you, Your Honor.

23 BY MR. ODELL:

24 Q In that particular paragraph, Dr. Braun, you have a
25 statement that says, "Overall the areas visited on

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1 Steens Mountain had exceedingly poor and the worst habitat
2 conditions of any area where I have studied greater
3 sage-grouse."

4 A That is true.

5 Q And that would seem, given your extremely rich background
6 in studying sage-grouse, that that is a fairly significant
7 statement, because how many areas would you say you've studied
8 greater sage-grouse over the years?

9 A I don't have a number. I just listed four areas, which
10 were similar in appearance, elevation, and where the effects
11 have similar results in my paragraph No. 36.

12 Q In light of that statement, would you say it would be fair
13 to characterize the condition of sage-grouse habitat, at least
14 in general terms within the Mud Creek and Hardie Summer
15 allotments, as marginal?

16 A It has a potential to be very, very good.

17 Q Okay. Are you familiar with the U.S. Fish and Wildlife
18 Service's 12-month determination that listing the greater
19 sage-grouse was not warranted as of October 2015?

20 A Yes, I am.

21 Q Do you generally believe that that determination was based
22 on sound science?

23 A No.

24 Q Can you explain?

25 A Sure. It is a political document.

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1 THE COURT: A what document?

2 THE WITNESS: It is a political document that the
3 states were forced into agreeing to because they didn't want --
4 certain groups did not want sage-grouse to be listed -- greater
5 sage-grouse to be listed as threatened or endangered.

6 THE COURT: Dr. Braun, can you tell me why you
7 reached that conclusion; namely, that it is a political
8 document for that purpose?

9 THE WITNESS: The states were involved with it. The
10 states' governors did not want a listed species in their state.
11 That's a political decision.

12 THE COURT: And what's the basis for you drawing that
13 conclusion? Is that, if you will, your opinion? Conjecture?
14 Do you have any other information that supports that
15 conclusion?

16 THE WITNESS: I worked in Colorado for 30 years.
17 When the next governor after I left was hired -- his name is
18 Hickenlooper. He took away all management, control, and
19 decision-making for sage-grouse from the Colorado Parks and
20 Wildlife. He assigned it all to a person from the oil and gas
21 industry who he was aligned with. That person made the
22 decision as to what would be done in Colorado in terms of
23 signing on to other documents to keep sage-grouse from being
24 listed. It is a political document. That's not the only case.
25 There are other cases just like that. That's one I know

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1 personally of.

2 THE COURT: I understand. Thank you.

3 THE WITNESS: Thank you.

4 BY MR. ODELL:

5 Q Thank you, Dr. Braun. So if you can turn to Defendants'
6 Exhibit No. 6, which is Docket 34-3, page 10. I want to ask
7 your opinion about a statement within that determination. I
8 understand you don't agree with the determination itself. This
9 may be hard for you to see. It is kind of small print. Is it
10 okay if I read it for you?

11 THE COURT: Counsel, please read very slowly so we
12 can have this put into our transcript.

13 MR. ODELL: I will do that. Thank you, Your Honor.

14 BY MR. ODELL:

15 Q It is the far left column; upper left corner of page
16 59909. It says -- and again, I'll read slowly. "Livestock
17 grazing may positively or negatively affect the structure and
18 composition of sage-grouse habitat (Factor A), depending on the
19 intensity and timing of grazing and local climatic ecological
20 conditions."

21 Did you catch that?

22 A I did.

23 Q And do you agree or disagree with that statement?

24 A I agree with that statement.

25 Q Thank you. Following that sentence, there is one more

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1 underneath that. Again, I'll read it slowly. It is on your
2 screen toward the bottom of the screen.

3 "As a result, drawing broad inferences regarding the
4 current impact of grazing on sagebrush habitats across the
5 range of sage-grouse is difficult."

6 Do you agree with that statement?

7 A I agree with that statement.

8 Q Thank you. Can you please pull up Exhibit 7, Defendants'
9 Exhibit 7. Now I would like to turn your attention to -- let
10 me ask you first, are you familiar with the Oregon Sage-Grouse
11 Action Plan that the Governor of Oregon, Kate Brown, adopted in
12 September of 2015?

13 A Yes, I am.

14 Q So turning to page 3 of that document, it is right under
15 Roman numeral iii, which is entitled "Addressing Key Threats:
16 Juniper encroachment, exotic annual grasses, and wildfire." so
17 That first sentence I'm just going to ask and ask if you agree
18 with this or not. It says, "The three primary widespread and
19 large-scale threats to the sage-grouse and its habitat in
20 Oregon are juniper encroachment, invasive annual grasses, and
21 wildfire."

22 Do you agree with that statement?

23 A The caveat is that what affects those things, invasive
24 annual grasses, juniper encroachment, and wildfire, are cattle.

25 Q So you agree, but you think that cattle can influence each

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1 of those three factors?

2 A Cattle can influence each of those three factors.

3 Q Thank you. I just want to make sure I understand your
4 position. Thank you.

5 Then if you could turn to page 10, please,
6 Mr. Ramsey.

7 That same document, under (b), entitled "Improper
8 Grazing Management," that first sentence says, "Appropriate
9 livestock grazing regimes are compatible with sage-grouse
10 habitat needs."

11 Do you agree with that statement?

12 A Define "appropriate."

13 Q Well, for purposes of this question, let's accept your
14 earlier statement that "appropriate" could be evaluated at
15 35 percent utilization?

16 A On some sites, that would be appropriate, yes.

17 Q So if that were the case, and the site was appropriate for
18 a 35 utilization standard, you would agree with this statement?

19 A I wouldn't go as high as 35 percent. I don't think
20 Holechek would either. I think that each site is specific.
21 You need to look at specific sites and not paint with a broad
22 brush on this, because not all sites are equal. In other
23 words, they don't all respond in the same way.

24 Q Was it your testimony earlier, though -- I thought you
25 said that you did think that 35 was the appropriate standard

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1 for utilization?

2 A I said 30 to 32 percent, as I recall.

3 Q Okay. 30 to 32. Thank you for clarifying. I'm trying to
4 make sure I understand.

5 THE COURT: In your third declaration at the second
6 paragraph 42, because there are two paragraph 42s, I think you
7 used the range 30 to 35 percent; am I correct?

8 THE WITNESS: That is correct.

9 THE COURT: So how do I understand the statement in
10 the declaration of the second paragraph 42, 30 to 35 percent,
11 when what you're telling us is 30 to 32 percent?

12 THE WITNESS: I'm citing Holechek's work -- his
13 summary paper, because he varies the percentage of grazing that
14 is proper. Some studies show it's a 35 percent; some studies
15 show a 30 percent, and so it is in that range. But I think he
16 really points out -- identified 32 percent as the magic line,
17 someplace between that number.

18 THE COURT: Just so I understand it, 30 to
19 30-something percent -- 32 percent utilization means what?
20 Does that mean the number of cattle? The percentage of the
21 land? I mean, 30 to 32 percent of what?

22 THE WITNESS: Of the annual production.

23 THE COURT: Production of?

24 THE WITNESS: Grass and forbs; what is eaten by
25 livestock.

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1 THE COURT: Okay. I think I see. Let me ask you to
2 start that at the beginning. Give me an overview, please, of
3 what we're talking about with this opinion of 30 to 32 percent
4 utilization being potentially reasonable or proper.

5 THE WITNESS: The way you measure forage production
6 varies. The best way to measure production is to have plots,
7 when you clip them. They're caged plots. Nothing can get in
8 there, including rabbits. So you are actually measuring what
9 is annually produced at various times of the year. That's how
10 you measure production -- how you should measure production.

11 That's usually by pounds per acre. It could be on a
12 kilograms per acre basis, which is then projected out over to a
13 larger area. And it's hard work. That's just how production
14 is actually estimated or measured.

15 Now, a lot of people will eyeball production and can
16 tell you precisely how many pounds of forage is out there on
17 the rangeland. I'm not able to do that. And most people
18 aren't adequately trained to do that either. So I believe in
19 actually measuring. Annual production is the way you measure
20 things, and it's usually by a plot.

21 THE COURT: Got it. Thank you, sir.

22 BY MR. ODELL:

23 Q Dr. Braun, are you also familiar with the Oregon
24 Department of Fish and Wildlife's Greater Sage-Grouse
25 Conservation Assessment and Strategy for the State of Oregon?

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1 A Yes, I am.

2 Q Do you think that's generally based on sound science?

3 A Christian Hagen is the author of that. He did a master's
4 degree with me in Colorado. He is well trained. I think he
5 did the best job he could in the situation in which he was
6 thrust. Usually a document like that is a compromise in
7 various areas, and I think there are some compromises in there.

8 Q Okay.

9 A But I have not talked to Christian Hagen about this.

10 Q But you generally respect his work?

11 A I respect his work.

12 Q Thank you. On page 11 of that exhibit, which is in front
13 of you, if you'd look toward the bottom third of the page with
14 the subheading "Recent Grazing Practices." Again, there is a
15 sentence that I will read for you and ask you if you agree or
16 disagree with it. It says, "The effects of grazing on the
17 structure and composition of sage-grouse habitat can be
18 positive, negative, or neutral and will vary with timing and
19 intensity of use and a host of environmental factors."

20 Do you generally agree with that statement?

21 A I agree with that statement.

22 Q Thank you. Then if we could turn to page 24 of that same,
23 Exhibit 8, for the defendants, please. I'm going to read. In
24 the middle paragraph there is a sentence that begins, "This
25 plan." I'm going to read those first two sentences. I'm going

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1 to read the first phrase of the first sentence and then I'm
2 going to read the second sentence. The first phrase of that
3 first sentence in that paragraph says, "This plan recognizes
4 that livestock ranching operations, which manage for
5 ecologically sustainable native rangelands, are compatible with
6 sage-grouse conservation."

7 Do you agree with that statement?

8 A There is a lot of words in there that are problematic.

9 Q Okay.

10 A I am very cautious about saying anything about that,
11 because what is compatible with sage-grouse conservation may
12 depend upon what site, what state, and what kind of data you're
13 actually using, and so I would be very cautious in agreeing to
14 accept that statement. It sounds good, but you need to look
15 into the depths of it.

16 Q Fair enough. I appreciate you clarifying, because I want
17 you to be as clear as you can.

18 In that second sentence, and, again, I'll read it for
19 you, based on the paper published by Naugle, et al., in 2011,
20 says, "From a habitat fragmentation standpoint, ranching was
21 the most environmentally benign land use and accumulated fewer
22 human features than landscapes that also contained tillage
23 agricultural, energy development, or both in Wyoming and
24 Montana."

25 Do you think that's a fair characterization of that

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1 paper and generally agree with that statement?

2 A When you consider fences, salting, and water development
3 across the landscape to benefit livestock, I do not agree with
4 that statement.

5 Q Okay. So you question the finding of the Naugle paper?
6 Is that my understanding? Are you familiar with that paper?

7 A Yes, I am.

8 Q So you question the findings in that paper?

9 A There are certain things in there, which I do not agree
10 with, and I know Dave Naugle. He and I have discussed some of
11 these things. I think that he has done really good work with
12 the sage-grouse initiative, which has benefited ranchers, but
13 not sage-grouse.

14 Q Okay. May I ask you -- and I mean no disrespect when I
15 ask this. I really want to get your frank opinion. Do you
16 consider yourself an expert when it comes to range management?

17 A I have taken classes in range science. An expert is
18 anybody who is 20 miles from home.

19 Q You qualify then, right, I guess?

20 A I don't qualify as an expert on range management. I have
21 seen a lot of range systems. I have looked at a lot of range
22 operations. Am I expert at it? I don't know an expert on
23 range management.

24 Q Fair enough. Thank you for candor on that, and, again, I
25 meant no disrespect. I was just trying to understand. You're

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1 obviously exceedingly a well-qualified expert in sage-grouse,
2 and so I don't dispute that in the slightest.

3 One final question I did want to ask you about. If
4 you could pull up Exhibit 49, please.

5 I'm sorry. Keith, Defendants' Exhibit 4. I'm not
6 sure I have it. Anyway, I'll ask. Pardon me.

7 BY MR. ODELL:

8 Q Did you have a chance to review the declaration of
9 Dr. Stringham that was filed the same day as your third
10 declaration this last Tuesday?

11 A I'm aware of it. I have scanned through it, yes.

12 Q Okay. In her paragraph 19 she references a paper that was
13 published in 2018 by Smith that addressed the effects of
14 rotational grazing management strategies on nesting
15 sage-grouse. Are you familiar with that paper? Have you seen
16 that paper?

17 A Yes.

18 Q Do you generally agree with the findings of that paper?

19 A There are a lot of words in there. There are a lot of
20 words that indicate a lot of fluff.

21 Q Okay.

22 A So I'm very cautious about it, because when you say
23 "could" and "would" and "can," I get nervous.

24 Q May I ask about a specific finding then?

25 A Sure.

C. Braun - X

1 Q The paper found -- and I will paraphrase: "There was no
2 evidence that rest from grazing for 12 months or more increased
3 daily survival rates for sage-grouse or nest success within the
4 study area that the paper's authors examined."

5 Do you question that finding?

6 A I don't think you are citing the right paper.

7 Q Okay. Do you think there is another paper that stands for
8 that finding? What do you think that paper stands for? Does
9 it talk about nest success, that Smith paper? Maybe we are
10 referring to different papers. I apologize.

11 A We may be.

12 THE COURT: Let me ask, Mr. Odell, are you referring
13 to what is referred to in paragraph 19 of the Stringham
14 declaration filed June 25 as the Runge 2019 paper?

15 MR. ODELL: The Smith 2018 paper.

16 THE COURT: Smith. Okay, got it.

17 MR. ODELL: Thank you.

18 THE WITNESS: Can you bring that paper up?

19 MR. ODELL: Well, I was trying to find which exhibit
20 number it is. Let me make sure I can find the number.

21 Forgive me, Your Honor. Unfortunately, I do not see
22 it in there. So I do not believe we submitted it for the
23 record. It is just referenced in Dr. Stringham's declaration.
24 I apologize.

25 I have no further questions at this time, Your Honor

C. Braun - ReD

1 Thank you.

2 THE COURT: Redirect.

3 MS. BROOKS: Yes, Your Honor. I would like to pull
4 up the Smith paper really quickly.

5 THE COURT: Where is this in the record? How do I
6 find it later?

7 MR. ODELL: I just want to clarify, that was the
8 paper I was referring to. Is that in the record?

9 MR. BECKER: Your Honor, it is not in the record. On
10 Tuesday we exchanged --

11 THE COURT: Then we are not talking about it.

12 MS. BROOKS: Okay.

13 THE COURT: This goes for both sides.

14 MR. ODELL: I apologize, Your Honor.

15 THE COURT: No apology needed. I'm just letting you
16 know. If it is in the record, we will talk about it. If it is
17 not, we won't.

18 MS. BROOKS: Thank you.

19 REDIRECT EXAMINATION

20 BY MS. BROOKS:

21 Q Dr. Braun, are you familiar with sage-grouse PHMA?

22 A In general, yes.

23 Q What is sage-grouse PHMA?

24 A Primary management areas (sic).

25 Q Are they important for sage-grouse?

C. Braun - ReD

1 A It depends on your view. Theoretically they are. The
2 problem is that they have been wiped off the slate now as of
3 the 2019 decisions, and so I'm very nervous about primary
4 management areas because they can change almost seasonally, if
5 not every two or three years.

6 Q But the Mud Creek allotment and the Hardie Summer
7 allotment are at least partially designated as PHMA, right?

8 A Yes.

9 Q Okay. Would you say that the Mud Creek allotment is an
10 ecologically sustainable native rangeland?

11 A No.

12 Q And would you say that a 35 percent utilization rate is
13 appropriate on a burn site like the Mud Creek allotment?

14 A No.

15 THE COURT: Why not?

16 THE WITNESS: It's excessive. There is hardly any
17 vegetation there to graze.

18 THE COURT: What about on the Hardie Summer
19 allotment? Do you have an opinion as to whether a 30, 32, or
20 35 -- if that number matters, let me know -- whether a
21 utilization rate on the Hardie Summer allotment would be
22 improper or likely to lead to harmful or irreparable damage?

23 THE WITNESS: A 30 to 32 percent grazing level would
24 be proper.

25 THE COURT: Proper --

C. Braun - ReD

1 THE WITNESS: Yes.

2 THE COURT: -- on Hardie Summer?

3 THE WITNESS: Yes.

4 THE COURT: Got it.

5 BY MS. BROOKS:

6 Q Just to clarify, Dr. Braun, you're talking about the
7 non-burned portion of the Hardie Summer allotment, right?

8 A The portion that I saw, yes.

9 Q Yes.

10 A The non-burned area.

11 Q But a significant portion of that habitat did burn, right?

12 A Yes, it did.

13 Q Okay. In light of the large amount of habitat that did
14 burn, would the 32 percent utilization on the unburned part
15 potentially hurt sage-grouse?

16 A It depends on where the cattle graze. Potentially it
17 would be very dangerous if the cattle grazed the unburned part
18 because it would compound the effort and compound the effect on
19 the habitat.

20 Q Thank you. So I would like to pull up -- I think we have
21 pulled up here this SageCon map that we had attached as an
22 exhibit.

23 I just want you to take a look -- I think you can
24 tell where the Hardie Summer and Mud Creek allotments are. On
25 the right, in the legend, can you see the dark green square?

C. Braun - ReD

1 A Yes.

2 Q And what does the dark green on the map represent?

3 A It represents good condition sagebrush.

4 Q Okay. And what about the yellow on the map?

5 A Yellow indicates early juniper encroachment.

6 Q With good condition, right?

7 A Right.

8 Q And so -- also, let's look at -- what does the dark blue
9 indicate?

10 A Good condition grassland.

11 Q So when you look at this map and you look at the
12 Hardie Summer allotment and the Mud Creek allotment, is there
13 good condition sagebrush on those allotments?

14 A There is some on both allotments.

15 Q Okay. And then let's look at this SageCon map. Does it
16 say that sage-grouse are likely present on these allotments?

17 A It says -- yes, sage-grouse may be present.

18 Q Okay. And then let's look at the dark brown in the
19 legend. What does that mean?

20 A Sage-grouse probably present. I would like to see some
21 data on some of these things though.

22 Q Fair enough.

23 Okay. So let's look at the intermediate one, which
24 is the second one right from the bottom right before
25 sage-grouse probably present, the kind of medium brown. What

C. Braun - ReD

1 does that indicate?

2 A Sage-grouse likely present. That's more -- that's
3 probably more likely.

4 Q And does that more or less coincide with the vegetation
5 map right here that we just looked at where the good condition
6 sagebrush is?

7 A Yes.

8 Q Okay. So in your opinion, Dr. Braun, the unburned habitat
9 on Hardie Summer allotment that you observed, would you
10 characterize that as marginal?

11 A Unburned habitat? No.

12 Q I would also like to go back and pull up, if I could -- if
13 I can -- the sage-grouse Steens PAC population trend graph that
14 Mr. Odell pulled up.

15 So you can see a pretty steep decline, I think in
16 sage-grouse populations, after 2006. Do you recall any major
17 ecological events that happened on these allotments in 2006?

18 A The major fire; the Grandad Fire.

19 Q Thank you. One further question. So Mr. Odell started
20 off by asking you about nesting -- about sage-grouse nesting.
21 Do sage-grouse, if they have one nest and the nest fails, do
22 they just give up and go home?

23 A Unfortunately, many of them do, but some of them actually
24 reneest. Yearlings normally do not reneest, but adults will try
25 to reneest if their first clutch was destroyed early. In other

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1 words, if it was destroyed in the egg-laying phase, they are
2 very likely to renest. If it is destroyed once incubation
3 starts, they are not likely to renest.

4 Q Do they renest at the same spot?

5 A No. Typically it would be several miles away.

6 Q And if they renest, obviously it is later in the season --

7 A Yes.

8 Q -- and so what's the latest date for nesting in the Steens
9 area?

10 A Latest date that we have calculated from backdating is
11 roughly the 3rd or 4th of July -- the last hatching date.

12 Q Then once they've nested, they keep using the habitat in
13 the area -- during brood-rearing season?

14 A July is getting pretty late. A lot of those late nests,
15 if they're successful, the hen needs to move very quickly to
16 find moisture, because she is nesting in probably a poor
17 habitat at that time, causing desiccation of the forage. Many
18 of those chicks don't make it is my belief. I don't have data
19 to prove that. But yeah, they will change habitat pretty
20 quickly once they hatch their clutch of eggs, especially a late
21 clutch. A lot of those late clutches don't amount to much.

22 MS. BROOKS: Thank you. No further questions.

23 THE COURT: Anything further, Mr. Odell, within the
24 scope?

25 MR. ODELL: No, Your Honor. Thank you.

1 THE COURT: Dr. Braun, thank you very much, sir. I
2 appreciate you being here.

3 Let's take inventory, because at some point
4 relatively soon, I need to give our court reporter a lunch
5 break. Are you okay for another minute or two?

6 So I would like to hear from plaintiff what
7 additional witnesses you would like to present, if any, and
8 your best estimate of direct examination.

9 MR. BECKER: Your Honor, plaintiffs do want to
10 present Dr. Boone Kauffman. It will probably take 45
11 minutes -- around 45 minutes for the direct examination.

12 THE COURT: All right. What live witnesses, if any,
13 would the Government like to present?

14 MR. ODELL: Your Honor, we will be calling three live
15 witnesses today. We would be calling Lindsay Davies, who
16 submitted a declaration --

17 THE COURT: Is that Mr. Davies or Ms. Davis?

18 MR. ODELL: Ms. Davies.

19 Matt Obradovich, who has submitted a couple of
20 declarations, and Dr. Tamzen Stringham.

21 THE COURT: It is Dr. Davis, right?

22 MR. ODELL: It is Dr. Stringham and Ms. Davies.

23 THE COURT: Got it. And how long do you estimate for
24 your direct examination of those three witnesses?

25 MR. ODELL: I would estimate half an hour each

1 approximately; maybe a little longer with Dr. Stringham.

2 THE COURT: Okay.

3 Dennis, how long do you need for lunch?

4 THE COURT REPORTER: 30 minutes.

5 THE COURT: All right. 30-minute recess.

6 (Recess.)

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B. Kauffman - D

1 (Afternoon session; open court; proceedings resumed:)

2 THE COURT: All right. Good afternoon.

3 Two things: I think I misspoke earlier this morning
4 when I said the TRO expires Monday. I think it expires
5 Tuesday.

6 Also, I did the math on your proposed direct
7 examinations on the remaining witnesses, and so I just
8 encourage both sides to be as time-efficient as possible so
9 that we don't have the testimony eat into your time for final
10 argument so that we can finish by 5:00 p.m.

11 All right. Plaintiff may call the next witness.

12 MR. BECKER: Thank you, Your Honor. Plaintiffs call
13 Dr. Boone Kauffman to the stand.

14 (The witness was duly sworn.)

15 THE CLERK: Would you please state your name for the
16 record, spelling your last.

17 THE WITNESS: My name is Boone Kauffman.

18 K-A-U-F-F-M-A-N.

19 DIRECT EXAMINATION

20 BY MR. BECKER:

21 Q Good afternoon, Dr. Kauffman. I would very briefly,
22 consistent with what the Court ordered earlier, like to give
23 you 60 seconds to describe your qualifications, and
24 specifically if you could focus on your qualifications with
25 respect to streams on Steens Mountain; and then secondly,

B. Kauffman - D

1 whether you are qualified to testify as a range management
2 expert.

3 A Okay. In terms of stream ecology/riparian stream ecology,
4 I have been conducting research in northeastern Oregon and
5 eastern Oregon on streams and riparian zones and management and
6 sustainability and restoration of riparian zones since 1978
7 when I did my master's degree. I've continued to do work
8 throughout eastern Oregon since that time, and I've done work
9 close or in the Steens in that time period as well.

10 In terms of range management expertise, I got a
11 bachelor's in range management, master's in rangeland
12 resources, a Ph.D. in fire ecology. I have been a range tech
13 in Texas and New Mexico. I worked cattle in Texas and New
14 Mexico and Oregon.

15 I have done research throughout Oregon, California,
16 Idaho in rangeland resources. I have also done research in
17 rangelands in the savannas of Africa. I have researched in
18 Central America, Asia, as well South America.

19 Q And you have published in both areas?

20 A Yes. I have got approximately 253 total publications, 120
21 refereed journal articles, and at least and 20 book chapters.

22 Q Thank you, Dr. Kauffman.

23 I think I would like to start off with this issue of
24 utilization. First of all, again, I would just like to repeat
25 the understanding of what utilization means in terms of whether

B. Kauffman - D

1 that is an average allotment-wide amount.

2 A Yeah. It is a very complicated question. Of course,
3 utilization, as Dr. Braun defined quite well earlier, it's the
4 percent of current year's growth consumed by grazing animals.

5 THE COURT: One more time slowly, please.

6 THE WITNESS: It is the percent of current year's
7 growth consumed by grazing animals.

8 THE COURT: And that's utilization?

9 THE WITNESS: Yeah.

10 BY MR. BECKER:

11 Q Let me just clarify that. And that's an average over the
12 whole growth --

13 A The 35 percent number is very, very meaningless to me, to
14 be honest with you, because cows aren't vacuum cleaners, and
15 rangelands aren't uniform across the landscape, as we all know.

16 Cows have certain preferences. They prefer riparian
17 zones. They prefer the cooler microclimate of the riparian
18 zone. They are going to hit those hard, and they are going to
19 graze pretty heavily before they move into less palatable areas
20 that are on steep slopes that they don't prefer away from
21 water.

22 So when you make a statement like 35 percent
23 utilization, what does it mean? By the time you got to
24 35 percent utilization in the low sage or the big sage, you'd
25 be at 75 to 90 percent utilization in the riparian zone.

B. Kauffman - D

1 Q So can you explain then the Holechek article that has been
2 discussed and that Dr. Braun cited in his third declaration,
3 what does that 30 to 35 percent figure stand for?

4 A Yeah. It is really important to remember that the
5 Holechek paper was referring to sustainable livestock
6 production, and maximizing livestock production wasn't really
7 referring to other ecosystem services. Now, livestock grazing,
8 certainly at a 35 percent level at a landscape scale, would
9 result in deleterious impacts to other ecosystem services that
10 are important on the rangelands.

11 For example, 16 percent utilization in the riparian
12 zones -- we did a study in northeastern Oregon, and we found 16
13 percent utilization at the gravel bars resulted in retarding
14 the growth to about half of willow and cottonwood growth.

15 Later on, we did another study with just two days of
16 livestock grazing, as they were trailing through, was
17 sufficient enough to retard the reproductive effort of willows,
18 the same willow species that are in the upper reaches of the
19 Hardie Summer allotment. So utilization levels at far, far
20 lower than 30 percent are going to harm the structure and
21 function of those riparian zones up high.

22 Q And if there were a 30 percent utilization rate
23 allotment-wide that we've heard tossed around since about
24 8:03 this morning, what would be the consequences in terms of
25 utilization in the riparian areas?

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1 A It would be -- you would be -- the cows would probably be
2 licking the roots of the riparian vegetation in the dry meadows
3 at that point in time. They would be severely overgrazed in
4 the riparian meadows. The herbaceous component -- clearly more
5 than current year's growth in the willows, which are the
6 Ben & Jerry's ice cream of plants out there. They would be
7 heavily hit about the time you would achieve a medium.

8 THE COURT: I've never heard that metaphor.

9 THE WITNESS: They love it.

10 THE COURT: I understand the point. I've just never
11 heard it described that way before.

12 THE COURT REPORTER: Doctor, can you slow down,
13 please.

14 THE COURT: The response to the question, "Can you
15 slow down," the honest answer is, "I don't know."

16 (Laughter.)

17 BY MR. BECKER:

18 Q And I know it is difficult, because one of the things that
19 came out very clearly in Dr. Braun's testimony is all of these
20 estimates and all of these notions that we have about what's
21 proper/what's not proper varies greatly from site to site, and
22 parenthetically would make a really good subject for a NEPA
23 analysis, but can you give an estimate, if there were a
24 30 percent utilization allotment-wide sort of try to quantify
25 what the percentage of vegetation within the riparian area

B. Kauffman - D

1 would be, how much would be used?

2 A Well, like I said, it would be very, very heavy use in the
3 riparian zones at that point in time. My guess would be well
4 over 70, 80 percent of herbaceous vegetation would be utilized
5 by the time you're even going to force them to start to graze
6 in the uplands, particularly that season of time. Quite often
7 livestock have been found to even start to decrease intake
8 rather than leave the riparian zone at that time of year.

9 Q What are the consequences for sage-grouse, for example?

10 A Well, what I would see is the areas that would be most
11 susceptible to sage-grouse damage would be the riparian zones
12 that the sage-grouse tend to use quite a bit during the summer
13 months, because that's where the insects are, that's where the
14 forbs are, on the edges. And particularly the ephemeral
15 streams, the intermittent streams, that haven't even been
16 mentioned by the BLM in all of these aspects, which are in a
17 highly degraded condition throughout both allotments, and if
18 allowed to recover, would be significant sage-grouse habitat.

19 Q I would like to pull up the second figure in your second
20 declaration. I understand that you did a field visit to the
21 Hardie Summer and Mud Creek allotments last week along with all
22 these other folks.

23 A Uh-huh.

24 Q The photograph here, that's an accurate representation of
25 what you saw in Big Fir Creek, correct?

B. Kauffman - D

1 A Yeah. That's one of the lower gradient reaches or
2 segments in Big Fir Creek.

3 Q Can you describe the conditions that you observed here.

4 A Yeah. What we see is that -- you know, these are -- this
5 Rosgen channel type is going to be clearly a pretty low
6 sediment system; very, very slow to recover. One of the
7 problems with Rosgen system, of course, it's better to use
8 particularly when you are looking at fish habitats to use other
9 classification schemes.

10 But at any rate, if you look at the various stream
11 segments, this is a lower gradient stream segment. This would
12 be areas where one can see stream banks are just starting to
13 recover after -- clearly, five years of use, we can see an
14 undercut bank starting to form. The willows in the background
15 are starting to recover. If you look closely, you can see they
16 were sort of a snow-coned appearance, high browse lines, but
17 they have recovered in five years. We're seeing good recovery
18 of the willows at this point in time.

19 The stream banks are starting to recover. They have
20 a long way to go. You can still see channel diversity is quite
21 low. What you can't see is these are what we call -- this is
22 the dining room for the redband trout, these lower gradient
23 reaches. This is where the fry would be hanging out. This is
24 where they are hiding in the undercover banks. The willow
25 dominant places would be the kitchen. It would be the drift,

B. Kauffman - D

1 the insects that would fall in, the allochthonous inputs would
2 be a source.

3 Q What does "allochthonous" mean?

4 A That's the input of energy, nutrients, insects, et cetera,
5 from outside sources. In other words, allochthonous would
6 inputs here, we are talking largely the leaf litter, the litter
7 fall, the large wooded debris that would come from the
8 streamside riparian vegetation. And that's really important.
9 In these headwater streams, studies have shown 90 percent of
10 the stream energy -- 90 percent -- 99 percent of their carbon
11 comes from these off-site resources like the riparian zone and
12 the riparian vegetation.

13 Q And the riparian vegetation would be affected by resuming
14 livestock grazing?

15 A Yes. Once again, the dominant that you can see in the
16 background are several species of willows that are especially
17 palatable to livestock.

18 Q Could you generally describe what sorts of impacts
19 resuming livestock grazing would have on this stream.

20 A Well, you would see, of course, these low-sediment
21 streams -- first of all, you would expect trampling damage.
22 Even the trampling damage of the large game -- deer and elk --
23 were apparent at this site. That would be greatly accelerated
24 because they would spend so much of their time in the riparian
25 zone, and you would see excessive utilization of these small

B. Kauffman - D

1 point bars and these small riparian areas that are just
2 starting to recover. This would be deleterious. This would
3 result in great sedimentation into the stream, causing damage
4 to redband trout habitat and spawning habitat, cover along the
5 loss of the overstory banks, which would be the cover for the
6 trout. We would see a decrease in allochthonous inputs,
7 increased shade to the streams --

8 THE COURT: Doctor, you are going to have to slow
9 down. I want to make sure we have an accurate transcript.

10 THE WITNESS: I apologize.

11 Anyway, it affects all the components of the riparian
12 zone: Shade, nutrient inputs, fish habitat, a variety of forms
13 affecting several of the allochthonous inputs.

14 BY MR. BECKER:

15 Q And why do you consider that these streams are vulnerable
16 to degradation?

17 A Well, again, they are just -- they are relatively
18 resilient at this point in time. We do see that five years of
19 rest has been very beneficial for these streams. You can see
20 the stream banks start to recover. Streams are starting to
21 narrow. We saw this not just here, but in several of the
22 headwater streams that I had the opportunity to walk the day
23 after I was with the BLM, other streams, other headwater
24 streams at the site, where we see the streams are starting to
25 narrow.

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1 They are called what we call -- performing new inset
2 floodplains, but there are such low sediment systems in these
3 headwater systems that just grazing one season is likely to
4 undo, through trampling damage, the benefit that we've gained
5 to date.

6 Q So is it possible that even one season worth of grazing
7 would undo this recovery?

8 A I would say if you tried to do 35 percent utilization
9 allotment-wide, you would.

10 Q Or 30 percent?

11 A Yeah, 30 percent.

12 Q Let me ask you in particular with respect to the
13 willows -- I think you referred to it as the Ben & Jerry's.
14 Why are willows so important for riparian habitat?

15 A Well, you know, they provide structure, stream bank
16 structure, as you can see in the background. They are
17 incredibly -- they are a keystone -- what we refer to in
18 ecology as a keystone species in that they are so important for
19 a whole variety of species -- aquatic species providing shade,
20 allochthonous input, woody debris, channel structure for fish.
21 The nesting habitat, as much as over 80 percent of the wildlife
22 in southeastern Oregon, is dependent upon this 1 percent of the
23 land occupied by riparian zones.

24 If we degrade these riparian zones, we're affecting
25 such a high proportion of the biological diversity of this

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1 science, and, of course, willows and cottonwoods and aspen,
2 those members of that family, they are sources of insects,
3 which is why they are important for birds, they're so important
4 for fish. They affect their structural habitat. And they
5 provide shade, keeping the stream cooler.

6 Q What would be the likely effect of resuming grazing even
7 at 30 percent allotment-wide utilization on the willows on the
8 streams here?

9 A Yeah, they would be -- clearly more than their current
10 year's growth would be utilized at this point in time,
11 particularly late in the season, as suggested here, where the
12 uplands would start to be drying out. This would be the only
13 real green palatable vegetation, or the most palatable -- green
14 vegetation in the level slopes that cattle tend to prefer.

15 Q In this photograph and in the other streams that you
16 visited, are the fine roots of grasses and sedges important for
17 stream bank recovery?

18 A Absolutely. Here? Of course, they are. They are the
19 ones that are causing the streams to cover. They're trapping
20 sediments. They are creating steep -- the over-hanging banks.
21 They are even important, as you can see, in the understory of
22 the willows.

23 In some of our work we found that the root mass of
24 some of these streamside riparian zones have a greater root
25 mass than from (indiscernible), and when they're grazed

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1 sustainably, in terms of livestock production, we see a decline
2 of 40 to 50 percent of that root mass. And that's when you
3 sustainably graze the riparian zones.

4 Q Could you clarify that. So let me see if I can ask this
5 without leading. What is classified as sustainable grazing at
6 the 50 percent level that Holechek would say, or even 30 to
7 35 percent, that's sustainable grazing from a livestock
8 production standpoint?

9 A Right, right. Again, virtually all of our work that we
10 have ever conducted, from rangelands, riparian zones on private
11 lands, riparian zones on public lands, I've never met a
12 permittee or a rancher who says, "I'm overgrazing," or "I'm
13 grazing where I'm deteriorating my resource." No, they say --
14 they typically are sustainably grazing for livestock
15 productivity. At the same time we can see a degradation of
16 other values that come from the landscape; values such as
17 salmon habitat, redband trout habitat, sage-grouse habitat,
18 habitat for the other 320 species of wildlife that would be
19 present out there.

20 Q So I want to be very clear. The term "sustainable" in
21 this case refers solely to livestock production --

22 A Right.

23 Q It does not refer to "sustainable" for sage-grouse or
24 redband trout for other ecosystems. Thank you.

25 In the case of these sedges and forbs, what's the

B. Kauffman - D

1 likely effect of resuming livestock grazing even at a
2 30 percent utilization rate for allotment-wide?

3 A What would happen to the sedges and forbs at 30 percent?

4 Q And to the banks --

5 A Oh, in the banks, we would see a cave-in -- with
6 30 percent utilization, you would see very heavy utilization of
7 these small meadows. Again, 70 to 90 percent, that would
8 result in very vulnerable soils. You would see trampling
9 damage. That would happen. You would see streams widening.
10 You would see lower vigor the following year. You're going to
11 lose your overhanging banks. You would lose -- infiltration
12 rates would go down. Trampling is going to decrease the
13 water-holding capacity of these sites, et cetera.

14 Q And could you just briefly describe what redband trout
15 need in terms of habitat for survival and abundance?

16 A Once again, they are a cold water fish. Optimally they
17 would have narrow channels with overhanging banks. In these
18 lower gradient segments, such as you see here, they would have
19 clean gravels for spawning and for survival of the fry while
20 they are in their redds.

21 And while they are in very young in the year, they
22 are going to need to be in these lower gradient areas,
23 particularly the end in the year, because in the steeper
24 gradient reaches it's too much energy and not enough resting
25 cover to survive, given the high velocity of the streams. But

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1 this would be where the drift would be coming down. They might
2 be behind that small piece of woody debris, hiding, and then
3 waiting for drift to come down from the site.

4 Q What sort of data would be necessary to evaluate the
5 condition of redband trout habitat?

6 A Well, you would need to do a stream survey and quantify
7 fish conditions and habitat conditions and physical conditions
8 and stream temperatures throughout the year.

9 Q To your knowledge, has BLM done any of the evaluations
10 necessary to evaluate the in-stream habitat for redband trout?

11 A Not to my knowledge.

12 Q Do you believe that BLM has conducted adequate monitoring?

13 A I don't think so. I don't know, to be honest.

14 Q Why is monitoring important?

15 A Well, again, it is important to get an idea of what are
16 the long-term influences of our land use and land management on
17 our resources, our nation's resources that come from these
18 public lands.

19 Q Does a proper functioning condition assessment evaluate
20 the in-stream condition of in-stream redband trout habitat?

21 A No. Proper functioning condition is just a qualitative
22 guess of what is going on out there.

23 Q So do you believe that resuming grazing on the
24 Hardie Summer allotment would have the effects you described on
25 redband streams and on redband trout?

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1 A Yes. At the 30 percent -- if there was an allotment-wide
2 30 percent utilization, absolutely.

3 Q So do you agree with Dr. Stringham's assessment in her
4 declaration that grazing is not a threat to redband trout
5 habitat?

6 A Oh, no. That's not true. It is simple observation and
7 understanding redband trout habitat needs and livestock
8 impacts, and these sites would lead one to conclude otherwise.

9 Q And what effect would resuming grazing on the
10 Hardie Summer allotment likely have on water temperature
11 downstream in Mud Creek, which is downstream of the allotment?

12 A You know, if you open up the channel, there's more solar
13 radiation. If you widen the channel due to trampling damage,
14 it is going to increase stream temperatures. The degradation
15 of the intermittent streams is going to have cumulative effects
16 downstream on the water quality as well on the stream
17 temperature.

18 Q And I'm going to go to the next page --

19 THE COURT: Hold on one second. Tell me more about
20 the cumulative effects.

21 Speak into the microphone.

22 THE WITNESS: Right on.

23 The cumulative effects are -- you know, about
24 80 percent of the stream segments in, say, the Donner and
25 Blitzen -- the stream miles in the Donner and Blitzen system

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1 would be the zero order of the intermittent streams in the
2 first order tributaries. Those are smallest of the streams.
3 But that's tremendous mileage of aquatic system. What happens
4 in that 80 percent of the first order tributaries is going to
5 be very varied. It is going to be reflected downstream. There
6 is the river continuum theory, where everything is connected --
7 the first order tributaries to the headwater streams down into
8 the intermittent streams.

9 So you affect these headwater systems. You have --
10 it's reverberating throughout the watershed -- the stream
11 system. And that's one of the greatest concerns that I have
12 about the entire allotments is that BLM is not paying attention
13 to the zero order of the intermittent streams. They are
14 sacrificing areas at this point in time.

15 THE COURT: Thank you. That was clear.

16 BY MR. BECKER:

17 Q This is the next page of your second declaration, and you
18 have captioned it the photo of Dry Creek on the Mud Creek
19 allotment. First of all, just to clarify, the name Dry Creek,
20 was that something that you were told by BLM?

21 A I was told by BLM. I'm not sure that was the proper name
22 for the creek. It is either Lambing Creek or Cold Springs
23 Creek.

24 Q How close is it to the lek, just to give us a geographic
25 idea?

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1 A Oh, about a half a hundred yards maybe, more or less.

2 Q So on the western part of the Mud Creek allotment?

3 A Where this photo was taken, this stream segment -- this is
4 probably -- I calculated probably about three miles long.

5 Q And does this flow into Mud Creek?

6 A It does.

7 Q What's your opinion of the ecosystem conditions on the
8 Mud Creek allotment?

9 A Oh, they are in a highly degraded state.

10 Q And what do you think caused that degradation?

11 A Livestock grazing. If livestock had never been in Steens
12 Mountain, it would be a paradise today. Of course, it was
13 livestock grazing -- all the impacts -- whether it's fire,
14 juniper invasion, cheatgrass, none of that would be there were
15 it not for the livestock grazing that precipitated all of this.

16 Q I would like to explore that a little later. I want to
17 pick up, though, on your discussion about the intermittent
18 streams. Would you classify what BLM told you is Dry Creek
19 that's shown in this photograph as an intermittent stream?

20 A At this point in time it likely is. It was running last
21 week at this time. You can see there is surface water. You
22 see five years, and you start to see a green line recovery in
23 the riparian zone starting to recover here. You still see
24 evidence of remarkable trailing and trampling damage. You can
25 see the trailing damage in the background where the livestock

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1 would have utilized this area pretty heavily. You know, we
2 have found that these sorts of streams are quite resilient and
3 have tremendous ability to recover.

4 Q How do you -- how does what you are observing here on this
5 Dry Creek compare to the conditions on the streams on
6 Hart Mountain that you have photographs of in your declaration
7 before livestock were removed?

8 A Well, you know, it is like many of those pictures. We
9 have done several research studies on Hart Mountain over the
10 years, starting at the time when the livestock were still on to
11 the present. Having permanent photo points has been a great
12 instructive aspect as well as our quantitative measures. But
13 what we see is throughout Hart Mountain in a variety of stream
14 types we will see uniformly dramatic recovery in the riparian
15 zone after 20 years of rest. This is evidence that we start to
16 see this slow recovery here, and I think there is
17 unquestionably -- all of these intermittent streams that aren't
18 done -- any of the assessments to date would be very, very
19 important for both sage-grouse habitat as well as the
20 cumulative impacts on the redband trout.

21 I just might add, in Hart Mountain, we're working in
22 these riparian zones that were in conditions very similar to
23 this 20 years ago. Now, when we work in these areas, we see --
24 we joke that we should rename "sage-grouse" to
25 "riparian-grouse," because we see so many that are in these

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1 terminal streams that are recovered, you know, utilized. This
2 is where the insects are. This is where the forbs are,
3 particularly late in the grazing season -- late in the growing.
4 So it's great value for grouse, were they allowed to recover.

5 Q And you have seen on this little Dry Creek evidence of
6 recovery after five years of rest?

7 A Yeah. You can see the small greenlight starting to form
8 right there and ungrazed clumps of sedges and riparian obligate
9 grasses that are starting to recover and come back in.

10 Q You're familiar with the testimony of Lindsay Davies.
11 You've reviewed that in this case?

12 A Yes.

13 Q Are you familiar with the statement she makes in paragraph
14 19 about the Mud Creek allotment's 303(d) listing for
15 water-quality temperature standard of 64 degrees. My
16 understanding, and I want to ask you, that is downstream of
17 both Hardie Summer and Mud Creek allotment --

18 A Right.

19 Q -- it's downstream of the effects you have been
20 describing. 64 degrees translates into about what on the
21 Celsius scale?

22 A About 27, 28 degrees. That's the upper --

23 Q Let me show you the next exhibit to her declaration: This
24 is Exhibit No. 9 to the Davies declaration. What is the
25 rearing criterion for --

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1 A 17.8 degrees. Again, once you are over 13 degrees, stress
2 starts to increase, and then for rearing, the threshold is 17.8
3 degrees.

4 Q And so this exhibit to the Davies declaration, if you
5 could look over to the far right column, and I'll enlarge it
6 for you. So this was the supporting data that they had. Could
7 you just read what it says about the 1997 water quality data in
8 that downstream section of Mud Creek.

9 A It was 72.5 degrees Fahrenheit exceeded temperature
10 standard 303(d).

11 Q And the standard was 64, according to the Davies
12 declaration?

13 A Right.

14 Q So I would like to go back to the photograph of Dry Creek
15 and ask you about these intermittent streams. You mentioned
16 that they're important. Do any of the declarants or any of the
17 Land Health Assessments that you've seen or the categorical
18 exclusion in this case, do any of them address impacts to these
19 intermittent streams?

20 A No, they don't. I'm surprised to see that, given the fact
21 that they are such a significant part of potential riparian
22 habitat on both of these allotments.

23 Q Do you have an estimate of about how many miles on
24 Hardie Summer, for example, that might be?

25 A I didn't get a chance to go to Hardie Summer. It was well

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1 over ten miles on Mud Creek. But it would be far more mileage
2 than the perennial streams that we have been talking about
3 mostly.

4 Q And again, reiterate the importance of these intermittent
5 streams. What's important about these intermittent streams in
6 terms of their value for sage-grouse and redband?

7 A Well, they're that 1 to 2 percent of the landscape that 83
8 to 84 percent of all wildlife species are wholly dependent
9 upon. They would be tremendous summer habitat for sage-grouse.
10 They are important for cumulative effects of following the
11 redband downstream. You know, were we to restore these
12 ecosystems, many of these intermittent streams could be
13 perennial with proper restoration and recovery.

14 Q So right now this stream does not provide redband habitat?

15 A No.

16 Q But it could?

17 A Possibly could. I have no idea. I mean, it would take a
18 long recovery period.

19 Q I apologize if I asked this already, because I'm jumping
20 around my outline. Would resuming grazing on the Mud Creek
21 allotment affect the degraded condition of the allotment that
22 you've described in terms of riparian habitat for sage-grouse?

23 A Yes, it would, because they would prefer these green areas
24 before almost any other part of the landscape --

25 Q And what would --

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1 A -- and it would result in overuse and degradation and the
2 loss of any recovery that has occurred in the last five years
3 on the site.

4 Q So in more colloquial terms, the cows would be eating the
5 vast majority of the vegetation in this --

6 A Well, in the riparian zone, right. They wouldn't touch
7 the cheatgrass and probably not the crested wheatgrass as well.

8 Q And is that likely to reduce the amount of vegetable for
9 sage-grouse?

10 A It is certainly going to reduce the habitat quality for
11 sage-grouse.

12 Q Thank you.

13 I am going to put up the declaration of
14 Dr. Stringham. You've had a chance to review this, correct?

15 A Yes.

16 Q I am going to look at, first, page 12 where she -- well,
17 actually let's look at page 11 first. She says that herbaceous
18 species such as sedges are not important to stream bank
19 stability.

20 Do you agree with that?

21 A No, that's completely false.

22 Q And that's your previous testimony here?

23 A Yeah.

24 THE COURT: Why is that?

25 THE WITNESS: Well, because the herbaceous species

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1 are incredibly important for stream bank stability.

2 THE COURT: Why?

3 THE WITNESS: Because they are the ones that have a
4 huge, huge mass of roots. Quite often, very intact, in zero
5 order tributaries, like these intermittent streams and these
6 headwater streams where you have the headwater streams, you
7 will see literally the herbaceous vegetable completely
8 enveloping the riparian zone, with roots even underneath the
9 spawny gravels at the bottom. They are holding that together
10 with narrowed widths, very, very steep overhanging banks, and
11 so they are very, very important. They are going to be
12 important wherever they are on the stream bank. They are.
13 They're high concentration of roots that do a great job of
14 holding, plus the fact that you have the aboveground
15 vegetation, which armors the bank during high flows as well.
16 If you lose them, you lose the stream bank and the soils, and
17 in this case, years and years required to recover that
18 sediment.

19 THE COURT: Thank you.

20 BY MR. BECKER:

21 Q On page 12, Dr. Stringham talks about there is necessary
22 infrastructure for appropriate livestock distribution with
23 offsite water and makes a statement that "livestock do not have
24 to water at the channel, as water is provided elsewhere away
25 from the channel."

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1 Can you describe why livestock are likely to use
2 riparian areas even if there is upland water troughs?

3 A May not have to water at the channel, but no one told them
4 that. The cattle just are going to prefer to be in the
5 riparian zone than an open watering tank, you know. The
6 microclimate is more pleasant. That's where the green
7 vegetation is. That's where the leveler slopes are. It has
8 been shown time and time again in several research studies that
9 watering offsite/watering salt placement has very little
10 impacts. Livestock will still overgraze the riparian zone.

11 Q On the next page she makes this estimate of forage in the
12 20 percent range. And again, based on your earlier testimony
13 about if there's a 20 percent allotment-wide utilization,
14 what's the utilization likely to be in the riparian areas?

15 A Once again, if there is 20 percent there, by the time --
16 once again, the livestock are going to start in the riparian
17 zone, graze that, and only when forage becomes eliminated in
18 the riparian zone are they going to move up to the uplands to
19 begin to graze in the sagebrush. So it is closer to the
20 riparian zones -- obviously the closer sagebrush to the
21 riparian zone, like if that lek site is less than 100 yards
22 away, maybe they would be with wandering up there at the very
23 first, but, you know, you're not going to get much more than a
24 mile away from the with closest water source.

25 Q So even at a 20 percent utilization rate allotment-wide,

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1 you're going to have what kinds of utilization in the riparian?

2 A Once again, well over -- in the meadow vegetation, the wet
3 meadow, the dry meadow, shrub understory with similar grasses,
4 it's going to be 70 to 90 percent. Based upon very, very
5 similar studies that we have conducted where we have measured
6 utilization in riparian zones.

7 Q This was the northeast Oregon study that you mentioned
8 with even a 16 percent utilization?

9 A And/or less in another study in the upper Meadow Creek
10 area.

11 Q Again, repeat what that showed.

12 A Once again, that 16 percent utilization in the willows --
13 about half-grazing it in the Meadow Creek study was enough to
14 suppress both growth as well as reproductive effort in the
15 willows. That was undetectable level of utilization,
16 herbaceous utilization, because they're hitting just the
17 willows. They hit them first.

18 Q Got you.

19 A By "hitting," I meant they utilize them. They consume
20 them.

21 Q Page 15 of Dr. Stringham's declaration has a pair of
22 photographs, which are -- well, maybe I can ask you the
23 question. Do the photographs describe what date or month they
24 were taken in?

25 A It says '10 and '16, Dalton Meadows, Nevada, 2010 and

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1 2016.

2 Q Sort of based on your knowledge, what would you estimate
3 in terms of the relationship to when these photos were taken to
4 when grazing occurred?

5 A It is obvious that the one on the left was taken after the
6 grazing season, and the one on the right is taken before the
7 grazing season.

8 Q So is she wrong to say below that that "healing of meadow
9 surface and reestablishment of native sedges and grasses is
10 apparent"?

11 A I don't see a lot -- it is really hard to tell. They are
12 grainy photos. They are small. But I don't see a lot -- they
13 appear to be *Poa pratensis*, *Juncus balticus*, exotic, dry meadow
14 species that are quite common throughout the intermountain
15 west.

16 It would be informative to see if these are taken at
17 the same time of the year, the same grazing period, so you can
18 make some sort of analysis of recovery. I do still see that
19 stream banks are still pretty raw in the background. I still
20 see eroding banks in the background. In the historical
21 floodplain, that's probably a rabbitbrush, an invasive
22 low-quality upland species that's now occupying the floodplain.
23 So it's not an impressive rate of recovery based upon the
24 confusing phrenology differences.

25 Q When you're trying to compare trends over time of

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1 recovery, is it important to take photographs at the same time
2 of the year?

3 A Especially where you don't have any structural changes.

4 Q I would like to ask you a few questions now about weeds
5 and juniper and fire. How does livestock grazing affect the
6 introduction and spread of invasive weed such as cheatgrass?

7 A Well, livestock affect the ecosystems four ways: They
8 graze vegetation. They trample vegetation on the ground. They
9 defecate and urinate. And they spread exotic species either
10 through their feces or their coats as they move through the
11 rangeland.

12 There have been great studies that have shown that
13 the trampling of the biological soil crusts are going to
14 increase the susceptibility of these sites to cheatgrass
15 invasion. These grasses, particularly upland grasses, did not
16 involve larger forage. They are sensitive to overuse. One of
17 the first things we see is that in grazed Wyoming mountain
18 basin big sage-grouse ecosystems that we lose the inter-shrub
19 bunch grasses to where they're pretty much restricted now to
20 underneath the protected areas underneath the sagebrush. This
21 is just now allowing juniper, which was historically restricted
22 to rocky outcrops, to evade these sites and the synergistic
23 impacts of grazing and fire suppression.

24 Q And so with respect to weeds and cheatgrass, what
25 scientific basis is there for the statement that grazing is, in

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1 your words, likely to increase the prevalence and spread of
2 invasive weeds?

3 A We know that science is pretty clear on that. The best
4 study I think would be Rosgen -- not Rosgen --

5 Q Reisner?

6 A Reisner. His study -- their study and others -- on how
7 looking at a whole variety of sites throughout the Great Basin,
8 what were the factors that contributed to the spread of
9 cheatgrass, and it was the trampling damage of the biological
10 soil crust as well as the impacts of grazing on the
11 bunchgrasses.

12 Q So then you disagree with the statements by BLM's
13 declarants that grazing will slow the spread of cheatgrass?

14 A Yes.

15 Q Is there any scientific basis for that?

16 A I have never seen it nor any reputable study that would
17 support that. I mean, what would be the ecological basis for
18 that to occur?

19 Q Again, explain a little bit more how grazing is likely to
20 affect the spread of juniper trees.

21 A Once again, we can look at the data that has come off
22 Steens Mountain by Rick Miller and Jeff Rose and others on fire
23 history, where about the time livestock are introduced to a
24 site, juniper start to increase. This has been -- if you look
25 at research by Julio Betancourt, this is a West-wide phenomena.

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1 So they are initially decreasing fine fuel so fires
2 don't occur, which we've changed the fire regimes. We're
3 certainly altering the fire regimes. We're decreasing the
4 resistance of bird -- we are creating basically good seed
5 sources for juniper to spread through trampling damage, loss of
6 soil crust, loss of competitive ability of the grasses to
7 compete with the juniper.

8 Q And how does livestock affect the likelihood of wildfire?

9 A Well, you know, wildfire is not just a simple matter of
10 fuels. There is also fire behavior or fire effects of the
11 climate. What time of the year is it burning? What are the
12 conditions? What are the wind conditions? And what are the
13 ignition sources?

14 So, yeah, they can -- if you look at when the
15 significant fires are occurring in the Great Basin, it is late
16 in the season, after the grazing season. You know, at the time
17 when the large severe fires are occurring, under the wind/
18 relative humidity conditions in which they're occurring, there
19 is very little that grazing animals are going to do to stop the
20 fire. They are moving through sagebrush canopy to sagebrush
21 canopy. They are moving through the junipers. They are going
22 to have very little impact under those conditions.

23 Now, if you wanted to prescribe fire early in the
24 year, they can have an effect. It is basically an impediment
25 to management when you are trying to utilize or prescribe early

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1 in the season.

2 Q And you indicated in your declaration that fine fuels,
3 so-called, are a very small percentage of the biomass out
4 there?

5 A Well, that's the one thing that's very, very interesting.
6 When you look at the sagebrush ecosystem -- we characterize it
7 as standard placing fires -- there are standard placing fires,
8 where basically the fuel load during a fire is the total
9 aboveground biomass. Now, one of the things that we find is
10 that you need to measure all the components to really get an
11 understanding of fire effects and fire behavior on these sites.
12 And the grasses themselves are a pretty small component, less
13 than 10 percent, in basin big sagebrush ecosystems, in Wyoming
14 big sagebrush ecosystems, and in mountain big sagebrush
15 ecosystems where we have conducted these studies.

16 Where the fuels that quite often are lacking or not
17 mentioned in any of these papers, for example, is the fact that
18 sagebrush themselves are dropping litter every year. In that
19 understory there is huge accumulations of sagebrush litter.
20 And so we see actually greater amounts of mass under the
21 sagebrush canopy, particularly in grazed areas where fire has
22 been suppressed. And now, because of grazing, we've lost the
23 inner shrub grasses. Grasses are now limited to the
24 understory. So when fires occur in this livestock altered
25 ecosystem, the impacts now are far greater than they would have

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1 been historically because there is so much more biomass of the
2 sagebrush litter, which is never eat on these sites, and so
3 grazing at any level is not going to affect those components of
4 the fuel load.

5 Q At least in terms of reducing the risk of wildfire?

6 A And the severity of the impacts of the fire.

7 Q Thank you. I think the final couple of questions are --
8 when you've had a fire that burned as intensely as the
9 Grandad Fire in 2006, when can grazing safely be resumed after
10 that?

11 A I would probably -- I would certainly agree with the
12 recommendations of Dr. Braun. One of the things that we look
13 diligently throughout that sagebrush lek zone, and throughout
14 that area, for sagebrush seedlings and couldn't find any.
15 That's going to suggest decades, if not centuries, for
16 recovery. Any seedlings out there would be susceptible to
17 livestock damage and trampling at that point in time. So any
18 grazing at this point in time will severely retard succession
19 back to a structurally diverse sagebrush-dominant ecosystem,
20 and that ecosystem has lost its resilience and ability to
21 recover in any short time frame.

22 Q In this case is it your understanding that grazing resumed
23 on the Hardie Summer allotment in 2007, the year after the
24 fire?

25 A Right. I thought that they said they were unclear, but it

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1 was one or two years after a fire, I believe.

2 Q So how much rest from grazing is recommended?

3 A That can greatly diminish biological diversity of the
4 post-fire environment. The reason why, these plants, this
5 vegetation has co-evolved with fire in this ecosystem. We know
6 what the fire return impulse are for the different sagebrush
7 ecosystems. We also know that in the post-fire environment, we
8 have more moisture availability. We see fire-enhanced
9 flowering. In other words, there is more reproduction in the
10 bunch grasses in the years following fire. We've quantified
11 greater rates of reproduction in burned versus unburned sites,
12 greater rates of reproduction in flowering in many of the key
13 sage-grouse forb species as well.

14 When you graze these sites in the first -- they're
15 incredibly vulnerable. You're squandering the ability to
16 recover that site to restore the site when you graze it within,
17 certainly, any time less than five years after the fire,
18 because you're not allowing -- now you're not allowing. You're
19 basically retarding and completely changing successional
20 trajectories in the future, because you're not allowing the
21 desirable native species, Bluebunch wheatgrass, Thurber's
22 Needlegrass, and key forb species, all of which we've
23 demonstrated do exhibit fire-enhanced flowering and
24 reproduction in those first post-fire years. We have done this
25 in several research sites and around the Steens.

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1 Q My last question is, how is climate change likely to
2 affect grazing impacts to riparian areas and sage-grouse and
3 redband trout?

4 A Well, you know, a couple of citations that you probably
5 would want to look at are the Oregon Climate Change Report. We
6 know that the climate is changing in Oregon. We are getting
7 warmer summers, less snowpack, more rainfall. Snowpack is
8 moving up. The weather data at the refuge just below the
9 Steens clearly indicates temperatures are rising. It is cited
10 in the McCullough paper.

11 Now, with all of these, it is going to make
12 conditions much, much difficult to restore these ecosystems.
13 We are not going to see the flowering. We are not going to see
14 reproduction. We are going to see less establishment of the
15 species. If we don't do anything now, if we don't establish
16 these species now, if we don't restore these areas now, it will
17 likely not be possible in the next 20 or 30 years, given the
18 projections and the predictions from, say, the Oregon Climate
19 Change Research Institute Report from this year.

20 Q Dr. Kauffman, based on your testimony, could you just
21 state your conclusions as to whether resuming grazing is likely
22 to cause harm to riparian areas, sage-grouse, and redband trout
23 on the Hardie Summer and Mud Creek allotments?

24 A Well, I think, once again, my testimony today has been
25 quite clear that the utilization levels suggested to date, it's

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1 going to cause very severe damage to the riparian zones, both
2 the intermittent as well as the perennial streams. It is going
3 to affect the key species that are depending on these riparian
4 zones, redband trout, sage-grouse. It is going to affect water
5 quality as well as the other important values and biological
6 diversity that have come out of the riparian zones.

7 MR. BECKER: Thank you.

8 THE COURT: Cross-examination.

9 MR. ODELL: Thank you, Your Honor.

10 CROSS-EXAMINATION

11 BY MR. ODELL:

12 Q Hello there, Dr. Kauffman. Good to see you again.

13 A Always good to see you twice in our lives, right?

14 Q Okay. I want to start by taking you through some of the
15 statements in your second declaration, which is in the court
16 docket as Document 59. Let's see if we can start with
17 paragraph 15. You have a statement there that -- well, let me
18 premise this by asking about your site visit last week, I
19 believe. You made a visit to the Hardie Summer allotment?

20 A I did, yes.

21 Q And you're talking -- I would ask about what you observed
22 during that site visit in paragraph 15.

23 A Yes.

24 Q Okay. So in that second sentence here of paragraph 15,
25 and this was part of your direct testimony elicited by

B. Kauffman - X

1 Mr. Becker, you had talked quite a bit about willows?

2 A Uh-huh.

3 Q You made several references, and this sentence also makes
4 a reference to a high browse line from grazing. I am
5 wondering -- if I could point you then to figure 2, which is on
6 page 9 of your declaration. What specifically can you point to
7 in this picture, or otherwise based on observations that day,
8 that led you to conclude that there was a high browse line on
9 the willows out there?

10 A It was very apparent. Basically when you have long-term
11 livestock grazing in mature willow communities, you'll see
12 what -- we call them "snow-coned" or "high-lined," where there
13 is a browse line to about the height where the livestock are
14 cudding. And you can still sort of see a remnant of that in
15 the willows in the background. It's rather hard.

16 But one of the things that we did see, you could see
17 the historic shape of where they had been -- the older stems
18 that had been high-lined, but the good news, what we were
19 encouraged to see, with rest, we had seen a lot of new sprouts
20 that had come up from the base of those willows and were
21 basically giving us then a continuous foliar cover of that
22 site. But it was clear that many of the mature willows had
23 been high-lined in the past.

24 Q Just to clarify, though, I think you said you think you
25 can see some of that in figure 2 here.

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1 A Yeah. The large willow in the right side, where that
2 large tree is, you can see that it has got put high-lined areas
3 historically --

4 THE COURT: Dr. Kauffman, there is a possibility if
5 you touch the screen, you might be able to circle it. There
6 you go.

7 THE WITNESS: It's possible -- this photo -- I should
8 have provided you a better photo of this perhaps. But possibly
9 in here you can see young sprouts coming in and then somewhat
10 of a gap between the dense overstory cover.

11 BY MR. ODELL:

12 Q You said "possibly." So you're not entirely sure if this
13 photo, at least, depicts the high-line concern you are talking
14 about. Is that fair? I want to make sure. You say that this
15 does depict that or it does not?

16 A It would be much better to be out in the field with you to
17 make that analysis.

18 Q Fair enough.

19 A In my professional opinion, as someone who has walked
20 streams for over a 45 years, when one sees the highlining of
21 the willows, it is quite common, as you soon as you remove
22 that, naturally the willows are going to start to sprout and
23 regrow, and that was a very common physiography of the willows
24 throughout the study as we walked through it, as well as the
25 next day as well.

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1 Q Okay. But not in this photo; is that correct?

2 A Once again, it becomes out of focus, and it wasn't the
3 purpose of the photo. What's in focus in that is the
4 foreground reach that I was trying to explain, but, you know,
5 good examples possibly in the two areas that I circled.

6 THE COURT: Dr. Kauffman, touch the screen in the
7 upper right-hand corner. Call up the arrow. Press the arrow.
8 You will get a menu bar box. Be touch "clear" on your screen,
9 and it clears your screen.

10 Thank you.

11 I can't do it from my screen. Why I can't do it from
12 my screen, I don't know.

13 THE WITNESS: Thank you for telling me that.

14 BY MR. ODELL:

15 Q Okay. So you made a statement in the direct testimony
16 about how livestock prefer riparian areas to graze in as
17 opposed to the uplands?

18 A Right.

19 Q And you made a statement in connection with your review of
20 Dr. Stringham's declaration where you said, even at a
21 20 percent utilization level, that you would expect -- and I
22 believe I heard you correct in your direct testimony -- 70 to
23 90 percent utilization in any riparian area. Is that correct?

24 A That's probably most likely, right. And that would be
25 based upon some of our research where we have found that when

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1 cheatgrass -- when grazing in riparian pastures were getting
2 about -- in the overstory plant communities we do get about 17
3 to 20 percent utilization while in the -- while we're getting
4 into dry meadows, the wet meadows are 60 to 70 utilization.

5 Q 60 to 70? Or 70 to 90? I thought in your direct
6 testimony you said 70 to 90.

7 A Well, in this scenario I would suggest it would probably
8 be higher just because of the limits at this time of grazing
9 and the late season and the lower palatability of the sagebrush
10 at that time.

11 Q Even though this area hasn't been grazed in five years,
12 you still think it would be 70 to 90 --

13 A Oh, yes --

14 THE COURT: Wait. Can I ask you both not to speak
15 over each other. So when one person is speaking, the other
16 person has to wait. And then when one person is speaking, the
17 other person has to wait. That will maximize the likelihood of
18 a good transcript.

19 Thank you.

20 MR. ODELL: Thank you, Your Honor. And I should know
21 better.

22 THE WITNESS: I should too.

23 BY MR. ODELL:

24 Q You mentioned several studies on which you were relying on
25 which to make this assertion. Can you tell me specifically the

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1 names of those studies, and did you supply those as a part of
2 what was requested in discovery that you relied upon in
3 preparing your declaration for this?

4 A I believe the Kauffman, Krueger, and Vavra paper is in the
5 testimony.

6 Q Do you know what year that is?

7 A 1983 or 1984.

8 Q Okay. So what specifically did that study find and where
9 was it conducted?

10 A It was conducted in northeastern Oregon at the
11 Eastern Oregon Agricultural Research Center on Catherine Creek
12 where we had it done. It was a three-week late season grazing
13 system where we looked at utilization levels in ten different
14 plant communities.

15 Q And it supported your assertion that when there is
16 20 percent utilization in the uplands, there was 70 to --

17 A There was 12 percent utilization in the Ponderosa Pine --

18 Q I'm sorry. How much?

19 A Once again, 2 percent in the cheatgrass; 16 percent in the
20 gravel bars that were willow dominated, or less. It is hard
21 for me to remember these numbers.

22 Q That's fine. That's fine. I just --

23 A It was a long time ago. The other studies where we've
24 looked at utilization impacts on willows would be Brookshire
25 and Kauffman paper in Oecologia. And I don't think that was in

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1 part of the record.

2 Q I'm sorry. I wanted to make sure you were done.

3 Did you say 16 percent in the willow-dominated area?

4 A I was saying, yeah, 16 to 17 percent utilization resulted
5 in about half of the growth rates being about half of -- willow
6 height being about half of what it was.

7 Q Were there any findings to support your opinion that you
8 providing here today that a 20 percent utilization in the
9 uplands would lead to a 70 to 90 percent utilization in the
10 riparian area, especially one that is willow-dominated, such as
11 Big Fir?

12 A You know, I would have to look at that. That's a very
13 broad question to ask. I think several studies have shown --
14 you know, another study that is in the literature would be
15 studies of Roath and Krueger where 10 percent of the riparian
16 zone accounted for about 17 percent of the total forage
17 available, and because of a whole variety of inherent
18 topographic features, it was about 80 percent of forage
19 consumed.

20 Q Okay. Now, in making that kind of assertion, can I ask,
21 does it matter what kind of stream you are talking about?

22 A Are you referring to like the Rosgen classification
23 system?

24 Q That's certainly one classification system.

25 A No, because, once again, the willows and the cows don't

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1 know what the classification system are. They are still
2 palatable no matter what geomorphic feature they're at. One of
3 the other aspects in trying to ascribe the Rosgen
4 classification system to land management, you're assuming that
5 the stream looks like this. Streams don't look like this. You
6 know, they have -- and this is why few fisheries biologists and
7 anybody doing reputable impacts on fish habitat and riparian
8 habitat are going to have to break these up into various stream
9 segments because there are certain areas the riffles and pools
10 that have lower gradient subsections within that area. So all
11 of these are going to have strong impacts. No, I would prefer
12 to use -- if you really want to get better ecological impacts,
13 it is better to use other classification systems.

14 Q Can you specify which one?

15 A Hankin-Reeves, which is used specifically by fisheries
16 biologists. Oh, man, my mind is at a blank.

17 Q Which one did you use in preparing your testimony? I
18 think your testimony is you think there is a distinction
19 streams, and it impacts the lifestyle it can have on streams
20 based upon the kind of stream --

21 A Right.

22 Q Is that fair?

23 A Basically what we would be looking at would be -- you
24 know, I'm dividing things up by stream segments, stream
25 reaches, pools and riffles, low-gradient reaches, reaches that

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1 would be of the different habitat characteristics for the
2 salmon. And that would be like, Pete Bisson's work that
3 suggested classification approaches for looking at impacts on
4 salmonid species. And that's where you would break things out.

5 Again, having these gross generalizations based on
6 physiography alone and stream gradient is really going to tell
7 you very little about susceptibility of these ecosystems. It
8 does tell you something about recovery. These steep Rosgen
9 systems suggest that they're sediment-limited, and they're
10 going to be very, very slow to recover, because there is just
11 not a very significant source of sediments to rebuild channels,
12 to rebuild channel diversity.

13 Q Okay. If I can follow up on that for a moment, because I
14 understood you to say in your direct testimony that you
15 expected great sedimentation to occur that would impact
16 negatively on the redband trout habitat. Now, I am hearing you
17 say, and I believe you also mentioned in your direct testimony
18 that this is a low-sedimentation stream because of the nature
19 of --

20 A No, you misunderstood what I said.

21 Q Did you not say that this is low --

22 A Let me tell you what's happening here.

23 Q Okay.

24 A The recovery -- because these are low sediment, there is.
25 not a lot of sediment load in these systems, and this is why we

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1 see such a slow rate of recovery. So the reason why we don't
2 have better overhanging banks in this photo --

3 THE COURT REPORTER: Please slow down. Slow down.

4 THE WITNESS: The reason why is that it is very, very
5 slow to recover. But if you get -- so now we are seeing maybe
6 five years of recovery of sediment accretion on this site,
7 because we have the roughness -- now, if you utilize these
8 things down to a few centimeters, you're not getting any
9 sediment accumulation the following year. You're going to get
10 no recovery, because you've trampled the banks. So what you
11 are going to see is a pulse of sediment.

12 THE COURT: A what?

13 THE WITNESS: A pulse of sediment.

14 So when I talk about sediments going into the redds,
15 going into the streams, that is because you've lost all of the
16 accumulated sediments over the last five years in a very short
17 period of time because of trampling and trailing damage.

18 BY MR. ODELL:

19 Q Let me ask you this. Are you familiar with the Rosgen
20 classification system?

21 A Somewhat.

22 Q So you could, I would presume, given your expertise in
23 this area, classify the area of Big Fir Creek that you saw
24 under Rosgen, could you?

25 A Yeah, if I had the list with me.

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1 Q Okay. Let's pull that up if we can. Pull up Defendants'
2 Exhibit 34?

3 MR. BECKER: That's not in the record, I don't think.

4 THE COURT: Yes, it is, with all respect.

5 Just give us the CM/ECF cite, and we will follow
6 along.

7 MR. ODELL: Thank you. It is Defendants' Exhibit 34
8 at page 7.

9 THE COURT: What docket number?

10 MR. ODELL: The docket number is -- oh, this is
11 one -- Your Honor, to clarify, your order said we were to share
12 with plaintiffs our exhibits we intended to use at the hearing.

13 THE COURT: I thought I said demonstratives.

14 MR. ODELL: With all respect, Your Honor, I sought
15 clarification from Ms. Austad to say do you mean just
16 demonstratives or all exhibits, and the email I got in response
17 said, "No, all exhibits."

18 THE COURT: The communication that went to me, and I
19 intended to get back to you, was we don't do things by
20 surprise.

21 MR. ODELL: Right.

22 THE COURT: So if you want some evidence submitted,
23 you file it in the CM/ECF system. In addition, I do expect
24 both sides may have demonstratives exhibits --

25 MR. ODELL: Yes.

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1 THE COURT: -- whether it be charts or outlines or
2 PowerPoints, and that's what I expect everybody to share as
3 well, so there is no surprise.

4 If what you both want to tell me is that you both
5 have additional exhibits that you would like to submit, here is
6 what we are going to do: I will let you do it. I will let you
7 each then brief and file supplemental briefs that will explain
8 to me the significance of this additional evidence, but only on
9 the condition that I get a stipulation that the TRO continues
10 past Tuesday, because I am not going -- I have got enough to do
11 to understand the evidence you have submitted.

12 If you want to submit additional evidence to me, I
13 will let you both do that, and I'll give you both a fair
14 opportunity to argue why it is or isn't significant to my
15 decision, provided that there is a stipulation that the TRO
16 will continue to give me enough time to receive your evidence,
17 read it, understand it, and that's what I'm going to do for
18 you.

19 You can decide what you want to do.

20 MR. ODELL: Well, I will speak for federal
21 defendants. In all candor, I was very confused, based upon the
22 order that was entered that said by Wednesday at three o'clock
23 of this week, on June 26th, we were to supply to the plaintiffs
24 all of our demonstrative exhibits, which is how I understand
25 what you just said.

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1 So I sent an email to Ms. Austad, and I said, "I just
2 want to clarify. Do you mean just our demonstratives, or do
3 you mean beyond that," in response to which, and I'll let
4 Mr. Becker clarify if he so chooses, which I am sure he may
5 well, "No, no. We don't want there to be any unfair surprise.
6 We think that should include any and all exhibits."

7 THE COURT: Make sure that all exhibits you want me
8 to consider have been filed, and things you don't want to file,
9 like demonstratives, you exchange.

10 MR. ODELL: So I have exchanged all of those
11 exhibits. It was my understanding that's what the Court
12 expected me to do Wednesday at 3:00. I have not filed those.
13 These are critical to our defense.

14 THE COURT: Let me ask this question -- I accept your
15 representation that they are critical to your defense. So if I
16 were to get them now, when do you expect that I would read them
17 and process them and understand their significance and give the
18 other side an opportunity to tell me whether they agree with
19 the significance and have all of that done in time to issue a
20 decision no later than Tuesday?

21 MR. ODELL: You would not, which is why I inquired
22 about the order. I would also represent, Your Honor, the
23 plaintiffs also shared exhibits with us that they have --

24 THE COURT: We heard this morning that Mr. Becker
25 wanted to talk about one exhibit, or I think Ms. Brooks wanted

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1 to talk about the Smith report. It is not in evidence. I
2 didn't let her do it. If she wants to get that in, and if you
3 want to get in an exhibit and deal with an exhibit, fine, I'm
4 not going to stop you, provided that I have enough time to read
5 it.

6 MR. ODELL: Absolutely.

7 THE COURT: If I don't have enough time to read it,
8 then we are just going to base it on the record that you've
9 already submitted.

10 MR. ODELL: Earlier, Your Honor, you had thrown out
11 the suggestion that we extend the TRO by another week or two in
12 order to allow us to discuss potential settlement. So I have
13 already had that discussion with BLM, and they are prepared to
14 provide up to that level of time. I mean, if a week would
15 suffice --

16 THE COURT: Here is what we are going to do now. I
17 would like to give our reporter a little bit of a break. I
18 know we still have our witness on the stand. During this break
19 you consult with opposing counsel and come back and give me
20 whatever proposed schedule you want that meets the following
21 condition: If both sides want to submit some additional
22 material, what are your deadlines for the submission of
23 additional material? Does each side then want a reasonable
24 opportunity to respond to the other side's additional evidence?

25 By the way, put page limits on it. I'm not going to

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1 get any more 40-page briefs on this stuff. Give me a proposed
2 page limit of 3, 4, 5 pages, give or take, somewhere in that
3 range that will explain the significance. Then give me at
4 least three to five business days to review all of that.

5 We don't have a trial next week, do we, Mary?

6 No. Oh, next week is July 4th. Wonderful.

7 Okay. Well, business days are business days. Give
8 me at least three to five business days. By the way, next
9 Friday, the 5th, the Court is not in session. That's not a
10 business day, although I will be here preparing for another
11 trial. Give me at least three to five business days. And as
12 long as you meet all of those conditions and then give me a
13 stipulation -- we can put it on the record, and I'll enter it
14 orally -- that the TRO will be extended until the end of that
15 five-business-day period, you can have any schedule that you
16 all agree upon that meets those conditions.

17 Dennis, how much time do you want?

18 THE COURT REPORTER: 20.

19 THE COURT: 20 minutes.

20 (Recess.)

21 (Open court; proceedings resumed:)

22 THE COURT: All right. Have you all reached a
23 scheduling proposal?

24 MR. ODELL: Yes, we have, Your Honor.

25 THE COURT: What do we have?

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1 MR. ODELL: I have spoken with Mr. Becker during the
2 break, per your direction. We agree we would extend the TRO
3 through July 17th, per stipulation of the parties. At the
4 conclusion of this hearing or by the end of day today we would
5 have submitted all the exhibits on which we intend to rely on
6 during this hearing; that we would proffer for admission.

7 Would you like us to go ahead and file those in the
8 CM/ECF system?

9 THE COURT: I think you should. If you don't get
10 them filed today, file them on Monday.

11 MR. ODELL: Okay.

12 THE COURT: Give me hard copies. Make sure that
13 whatever you want me to consider that's not already in the
14 electronic docket is filed by Monday.

15 MR. ODELL: That sounds good, Your Honor.

16 THE COURT: File the exhibits by Monday.

17 MR. ODELL: By Monday. Although I think in order to
18 make our deadline work, do we want to say Monday morning? We
19 talked about each to have a five page --

20 MR. BECKER: If you would, Your Honor, I think it
21 would be preferable if we could do it by the end of the day
22 today.

23 THE COURT: I'm not going to stop you. I'm
24 suspecting that you both will be here talking to people. Do
25 whatever you want, but no later than Monday morning.

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1 MR. ODELL: Let's say Monday morning, if that's all
2 right.

3 MR. BECKER: Your Honor, again, respectfully, we've
4 shortened the time that we get to file our five-page response.

5 THE COURT: Until when?

6 MR. BECKER: Tuesday.

7 THE COURT: Fine. Now you have until Wednesday.

8 MR. BECKER: Thank you.

9 MR. ODELL: Thank you.

10 THE COURT: So file your exhibits by Monday.

11 MR. ODELL: Okay.

12 THE COURT: Five-page responses on Wednesday.

13 MR. ODELL: Limited to the scope of those exhibit.

14 THE COURT: July 3rd.

15 MR. ODELL: Yes.

16 THE COURT: If you each want to respond to what the
17 other files on Wednesday, the 3rd, why don't you do that by
18 Wednesday, the 10th, again, limited to five pages each.

19 Then one week later will be the deadline for me to
20 get you a decision on the motion for preliminary injunction.
21 That is Wednesday, July 17th.

22 Let's put a deadline. Can you get them filed by
23 10:00 a.m. Monday morning?

24 MR. ODELL: Yes, Your Honor.

25 THE COURT: 10:00 a.m. Monday morning for the

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1 exhibits.

2 Your briefs will be due, limited to the new exhibit
3 materials, July 3rd, five pages each.

4 Responses to what the other one's brief was on
5 July 10th, five pages each.

6 I will get you a decision on the pending motion for
7 preliminary injunction no later than 5:00 p.m. on July 17th,
8 earlier if I can, but otherwise July 17th.

9 The temporary restraining order, by stipulation of
10 the parties, can be extended until July 17th.

11 Is that correct, Mr. Odell?

12 MR. ODELL: Yes, Your Honor. On behalf of
13 defendants, I can represent that's correct.

14 THE COURT: Mr. Becker, that's acceptable?

15 MR. BECKER: That's acceptable.

16 THE COURT: All right. We will do that by minute
17 order. We will put in that schedule by minute order, including
18 the fact that the TRO is extended by stipulation of the parties
19 until July 17th. That means now, if you want to talk to some
20 witnesses today about some additional exhibits that haven't
21 been entered, you go right ahead.

22 All right. I think we are still with the
23 cross-examination of Dr. Kauffman.

24 MR. ODELL: Yes, Your Honor. Thank you.

25

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1 BY MR. ODELL:

2 Q Dr. Kauffman, if I can continue with my questioning. We
3 were talking about the Rosgen stream classification system, and
4 I was referring to this particular chart. That's a part of
5 what's called the Rosgen Stream Classification Technique
6 Supplemental Materials Technical Supplement 3E.

7 Are you familiar with that chart? Have you seen it
8 before?

9 A I'm looking at it right now.

10 Q Great. So what I wanted to ask you, based on your
11 representation of your familiarity with Rosgen, is based upon
12 the site visit that you made to Big Fir Creek last week, which
13 of these stream classes would you say Big Fir fits into?

14 A Well, you know, I didn't measure the stream gradient of
15 these areas, but there's no reason to believe they weren't, you
16 know, Class B and C channels, you know, intermittent.

17 Q Fair enough.

18 Then if I could turn to ask my legal assistant to
19 turn to page 21 of Exhibit 34, in particular the table that is
20 denominated TS3E-5. If you look down there under the stream
21 types, there is B1 through B6. I'm not going to you ask you to
22 classify more particularly than B and C, which you've already
23 said. You'll notice in that third column over, there's a
24 recovery potential column. You notice that the recovery
25 potential for all of the Rosgen B channels, B1 through 6, is

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1 rated as excellent?

2 A I see it written here.

3 Q Okay. Earlier I thought your testimony on direct was that
4 Big Fir had very slow recovery and was not suitable for
5 recovery. Is that your testimony, and is that consistent with
6 this?

7 A No, neither one of those. First of all, can you tell me
8 what they mean by "recovery potential," because one can't just
9 make -- I mean, recovery is a very complicated aspect. Are you
10 talking about vegetation recovery? Are you talking about
11 stream channel recovery? Which segment of the river are you
12 talking about recovery? Because one of the shortcomings of
13 this Rosgen system, one of the reasons why this table is really
14 of limited value in this case is because there are some areas
15 that are -- have a high recovery potential that would be
16 reasonably rapid. And like we testified, we do see recovery on
17 that site.

18 On the other hand, there are certain segments in that
19 area that are low gradient, where there is not -- where they
20 are -- where there are few willows, where channel widening,
21 channel simplification is going to be quite slow. So this
22 table really is of -- it is just too general to really be
23 relevant in this case.

24 Q But at least can I ask you this: To the extent that the
25 stream does represent a Rosgen B classification system, in

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1 those areas, and I understand that there are areas where the
2 gradient may be different or the sinuosity may be different or
3 there may be other variations, but in general, during those
4 segments where the stream does fall into that classification,
5 you're saying the recovery potential for those could be quite
6 good?

7 A Yes. I mean, every ecosystem has a recovery potential
8 when it is a riparian zone with time and what you define as
9 "recovery" -- what components are recovered.

10 Q All right. Very good. So then can I take you back to
11 figure 2 in your second declaration, which is Docket No. 59,
12 and that's on page 9 of Dr. Kauffman's second declaration.

13 This is a photo that we have talked quite a bit about
14 today. I just want to ask you, based upon the site visit that
15 we made -- actually, I wasn't on that site visit. But you went
16 on with some of my clients that day --

17 A Correct.

18 Q -- how much of the stream that you walked would you say is
19 represented by conditions like this as opposed to a more woody
20 and more cobbled banks in other parts of the stream? Could you
21 estimate how much of the stream is represented by conditions
22 like this?

23 A You are talking about -- we just want to limit my answer
24 to Big Fir Creek, or all the creeks I walked the next day as
25 well? I walked several creeks with different Rosgen channel

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1 types throughout the area. I would love to talk about their
2 ecological condition as well. Am I just limited to this site
3 here?

4 Q Correct.

5 A For this site, I would guess somewhere -- 20 percent
6 maybe.

7 Q 20 percent. Thank you.

8 A Again, those are the critical 20 percent for redband
9 trout.

10 Q Okay.

11 THE COURT: And what makes them critical?

12 THE WITNESS: Because they are the lower-gradient
13 systems. They are the ones where the fish -- particularly the
14 fry and the young of the year can hide and where you have
15 overhanging banks, where you have this large piece of wood. In
16 the areas that are steep, it is far too much stream power for
17 small fish for resting. It is trying to rest in a
18 40-mile-an-hour wind versus a calm room.

19 BY MR. ODELL:

20 Q Okay. Thank you. Can we now go to paragraph 16 in
21 Dr. Kauffman's second declaration; the second part of the
22 paragraph on page 7. You have a statement here referring to
23 numbers of AUMs on this allotment. You represent it is 1500
24 AUMs. Can I ask where you got that figure?

25 A From the information on how many were on the allotment

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1 that year.

2 Q Are you confident that's a correct representation of the
3 number of AUMs being raised there --

4 A Given all the shifts and changes today, no, not at all.

5 Q Okay. You are not confident. Thank you.

6 A I have no idea, because, like I said, things have been
7 changing so rapidly. But again, if you were to give me an idea
8 of how many AUMs, I would certainly be happy to provide you
9 with the estimate of fecal deposition and the average fecal
10 deposition of a cow on a daily basis.

11 Q All I'm asking you is if you are confident in that number,
12 and I heard you to say no. That's all I needed to know, so
13 thank you.

14 Do you know the number of AUMs that actually are
15 permitted to be grazed on the Hardie Summer allotment, how many
16 of those are on private land as opposed to the BLM public land?

17 A No.

18 Q All right. Now, turning you to paragraph 17, which is
19 just down the same page, page 7. If I can ask you, first,
20 generally before I specify a particular sentence, is it
21 possible with any degree of meaningful certitude to discern
22 trend based on a single data point or a single observation?

23 A Yes.

24 Q It is?

25 A Uh-huh.

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1 Q How so?

2 A Well, you know, I mean from the fact that one of the
3 things that we did is we looked at physiognomy of the willows.
4 They were clearly snow-coned. You can see recovery through
5 time. Also, there is a very significant signal in the channel
6 physiognomy as well. We can see where channels had started to
7 recover. You can tell historically where they are narrowing
8 and widening. You can see the former channel banks from the
9 degraded system. And once they start to recover, you see the
10 recovery through time, the fact that the channels are
11 narrowing, and what we refer to that is the inset floodplain
12 from where the historical floodplain -- where it has degraded,
13 where it down-cut, and then the historical channel width and
14 now with recovery of five years. You can very discernibly see
15 where it has improved. I'll provide some photos for the next
16 round that clearly showed this, where we took photos in other
17 streams of that Hardie Summer allotment the next day.

18 MR. ODELL: Mr. Becker, just to clarify, are we
19 limiting ourselves to what we relied on today and what we
20 previously showed each other as the exhibits; is that correct?
21 That's what we discussed, as I recall.

22 MR. BECKER: Yeah. But I think under the
23 circumstances, if we produced it to you -- because we had the
24 sort of the surprise 30 percent figure tossed out today,
25 Dr. Kauffman has mentioned a couple of articles, which he

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1 referenced, and we provided in the document production. So I
2 think if it is in the exhibits that we exchanged or in our
3 production, and we mention it today, we can go ahead.

4 MR. ODELL: So we are not limited to those. I don't
5 think that's what we agreed to, but I understand your position.

6 Okay. Thank you.

7 BY MR. ODELL:

8 Q Would what you are discussing be depicted in figure 2 in
9 your declaration? You have this sentence that I wanted to ask
10 you about in paragraph 17. "The channels are narrowing and
11 channel diversity is incrementally increasing."

12 That's why I wanted to figure out how you were able
13 to discern that based on a single-day visit to that creek. Is
14 there a photo that you have where you can show that?

15 A Yes.

16 Q Okay. That would be helpful. Thank you.

17 Can you pull up Exhibit 33?

18 Now, you have a photo in your declaration on page 10
19 that you refer to as Dry Creek on the Mud Creek allotment. I
20 wanted to know on what basis you concluded that that was
21 intermittent streams?

22 A Basically on the advice of the BLM experts that were in
23 the field -- on their telling me that. On the other hand, it
24 was running -- as I clearly stated, it was running at the time.

25 Q And I believe your direct testimony is that it flows into

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1 Mud Creek. Is that what you said?

2 A It flows into the Donner and Blitzen channel. I would
3 have to see exactly where it flows in. I can't do that now.

4 Q Do you know what the source of that particular --

5 A Yeah, I was at the source. It is in the
6 Hardie Summer allotment.

7 Q And what is the source?

8 A Headwaters.

9 Q And is it a natural spring or did you see a --

10 A Well, it is just a slow incremental increase, yeah.

11 Q Okay. Thank you. I believe also in your direct testimony
12 you said that everything was due to livestock grazing. By
13 that, I want to give you a chance to clarify, if you can. You
14 mean every adverse effect in this allotment or ecosystem or
15 anything that is not in pristine condition, it's your testimony
16 it is all due to livestock grazing?

17 A Well, you know, what I meant by that is were we to have --
18 were there not to be any influence of Euro-American settlement
19 on Steens Mountain, it would look pretty much like it does
20 today -- it probably would have changed very little over the
21 last 150 years. There is more hectares, more acres, more land
22 that are affected by livestock grazing and use in the West and
23 the Steens, in particular, here.

24 The point is that the overall -- now, clearly, there
25 would be -- the roads would cause a modicum of damage. There

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1 would be the extirpation of Native Americans that would have
2 changed ignition patterns. There would be arson fires today.
3 They would all cause -- but the fact that the increase in the
4 juniper, the increase in the sagebrush, the degradation of the
5 riparian zones, the loss of the sage-grouse is largely due to
6 livestock grazing.

7 Q So are you familiar with the studies that I cited to
8 Dr. Braun earlier that said that the major drivers of
9 sage-grouse habitat laws did not include livestock grazing? So
10 it is your testimony you do not agree with that. You think
11 that livestock grazing is the primary driver for sage-grouse
12 habitat, and that's inconsistent with those studies?

13 MR. BECKER: Objection. "Unclear." Could you
14 specify which studies.

15 MR. ODELL: Sure. I'm glad to.

16 BY MR. ODELL:

17 Q The documents I'm talking about, to be more precise, there
18 is the U.S. Fish and Wildlife Service 12-month determination
19 that listing the greater sage-grouse was not warranted as of
20 October 2015. There was the Oregon Sage-Grouse Action Plan
21 adopted by Governor Kate Brown in September 2017. There is the
22 Oregon Department of Fish and Wildlife Greater Sage-Grouse
23 Conservation Assessment and Strategy for Oregon that -- none of
24 which identify livestock grazing as a primary threat. They do
25 identify it as a factor, but not among the primary threats to

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1 greater sage-grouse habitat loss, and I heard you say that you
2 think it is primary?

3 A Well, let me back up again. Remember, those documents are
4 not scientific documents. Those are not peer-reviewed. They
5 would never pass something peer-reviewed, because of the gross
6 generalization and misstatements that those documents make.
7 They are political documents.

8 So I find them to be incorrect, yes. I mean -- and I
9 doubt, and I would love to talk to the authors, because, as I
10 said, well, what about the overall influences, the proximal
11 causes of these invasive species -- the juniper invasion and
12 the lower range condition. Those are due to livestock
13 grazing --

14 Q All due to livestock grazing? That's your testimony?

15 A Principally due to livestock grazing.

16 Q Okay. So do you know Christian Hagen, as does Dr. Braun,
17 who said he respects his work, who was the author of that --
18 you do not?

19 A I know who he is.

20 Q But you denigrate his work --

21 THE COURT: Is "denigrate" the right word or
22 "disagree with"?

23 MR. ODELL: I should put that in the form of a
24 question, Your Honor. I apologize. That was not an
25 appropriate statement.

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1 BY MR. ODELL:

2 Q You disagree with Dr. Hagen's statement in the assessment
3 and strategy --

4 A I will certainly have a conversation with Dr. Hagen. I
5 think that Dr. Hagen and I -- I doubt Dr. Hagen and I would
6 disagree on the fact that that was a political document, not a
7 scientific paper. It would not pass peer review. That
8 statement would not pass peer review. It is not likely to pass
9 peer review because it does fail to recognize what are the
10 proximal -- the ultimate causes of an expansion of, say,
11 cheatgrass, juniper, et cetera.

12 Q Are you familiar with the work that Dr. Knick has done on
13 sage-grouse?

14 A Somewhat, yes. Steve Knick.

15 Q Is it your understanding that he is a reputable scientist
16 and what he has published in this seminal work on sage-grouse
17 habitat --

18 MR. BECKER: With respect, Your Honor, Knick has not
19 even been introduced or exchanged.

20 THE COURT: First of all, it wasn't with respect,
21 because if you want to make an objection, you wait until the
22 question is over, and then you make an objection. Let me hear
23 the end of the question, and then we will go to the objection
24 before I hear from the witness.

25 What was the question again, please?

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1 BY MR. ODELL:

2 Q The question is whether you disagree with the findings by
3 Dr. Knick with respect to the influence of livestock grazing on
4 sage-grouse habitat or sage-grouse biology?

5 THE COURT: Mr. Becker, do you object to that
6 question?

7 MR. BECKER: Objection. There is no foundation.
8 There is no description of what conclusions or what study or
9 anything.

10 THE COURT: All right. The objection is overruled.
11 You may proceed, Dr. Kauffman.

12 THE WITNESS: Okay. You would have to tell me what
13 paper in particular, what line in particular. I've had
14 conversations with Steve Knick. I never found that we
15 disagreed overall, but these would be conversations, you know,
16 in the camp at night.

17 Q So if Dr. Knick in his peer-reviewed published literature
18 determined that livestock grazing was not one of the primary
19 threats to sage-grouse, you would disagree with him as well.
20 You pointed out that the earlier documents that I cited were
21 not scientifically peer-reviewed documents. But if Dr. Knick's
22 was, you would still disagree with it?

23 THE COURT: Mr. Odell, do you have a copy of a report
24 from Dr. Knick in which he makes that statement?

25 MR. ODELL: I have a report. I have not shared that

B. Kauffman - X

1 with plaintiff, I concede, but I'm aware of it from previous
2 litigation, and it is directly relevant.

3 THE COURT: I understand. Can you show that report
4 to Dr. Kauffman so he can then answer your question, seeing
5 that report and that statement that you purport is contained in
6 that statement in the report in context.

7 MR. ODELL: Yes. Although I should have clarified, I
8 have it in my office. I don't have it with me. I apologize.

9 THE COURT: Move on to the next question.

10 MR. ODELL: All right. Thank you.

11 BY MR. ODELL:

12 Q In your declaration you cite to the draft Oregon
13 Department of Fish and Wildlife Malheur Lakes Redband Trout
14 Conservation Plan; is that correct?

15 A What paragraph? Could I see it? I'm not sure.

16 Q Go to page 29, Mr. Kauffman.

17 A In the "literature cited" section?

18 Q Yes. You cite to there and I know -- anyway, the point I
19 want to ask you, since you cite to that, I assume you accept
20 that it is a reputable and credible document. Is that fair?

21 A What do you mean by "reputable and credible"? Do you mean
22 I'm going to believe and understand every word like Facebook?
23 No, I'm not.

24 Q Are you aware that in that draft conservation plan the
25 Blitzen River population of redband trout is classified as the

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1 most robust among local redband trout populations and is at low
2 risk of extension? Were you aware of that?

3 A I would have -- yeah, I would have no reason to dispute
4 the results of the fisheries biologists data.

5 Q And if grazing had had the effects on riparian systems
6 that you have alleged would occur, based upon what is
7 authorized for 2019 Hardie Summer, which has occurred for 20 of
8 the last 25 years and well before that at a much heavier
9 intensity, would you have not expect that to have an effect on
10 the population over time and how is that consistent with your
11 testimony?

12 A I'm not following you exactly.

13 MR. BECKER: Objection. Compound.

14 MR. ODELL: Let me try that again. I'll rephrase
15 that question.

16 THE COURT: Mr. Becker, this is not a deposition. If
17 you want an objection, you make your objection to me.

18 MR. BECKER: Yes, Your Honor.

19 THE COURT: Although it sounds a little bit like a
20 deposition, but we are not applying deposition rules.

21 MR. BECKER: Thank you very much. Forgive me.

22 BY MR. ODELL:

23 Q Would you expect the population to be considered robust
24 and a low risk of extinction, given that there is extensive
25 grazing in this area, in the Steens area? Is that consistent

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1 with your testimony that these riparian areas are
2 extraordinarily damaged every year there has been grazing going
3 on? Is that consistent with a robust population of redband
4 trout?

5 A You can't talk about an entire population and an entire
6 area and then talk about general localized areas and impacts.
7 Again, we could go through and talk about impacts of various
8 land uses on the population and what do we mean by "robust
9 populations" to begin with. We know that if the population may
10 be hanging on, then it might be like street people living on
11 grates, you know. It is lousy for humans to be living on the
12 street, but they're still there. It's the same with these
13 redband trout. It may be poor habitat conditions, but they're
14 hanging on, and we call that robust conditions.

15 Q Okay. I would like to turn now to figures 4A and 4B on
16 page 12 of Dr. Kauffman's second declaration, which is document
17 No. 59. So these are the photos that you submitted as part of
18 your declaration that I believe were taken in the Hart Mountain
19 National Antelope Refuge; is that correct?

20 A Yes.

21 Q Earlier I asked you about whether or not you believe there
22 were differences in stream systems; is that correct?

23 A Yes.

24 Q And you acknowledge that you think that there are?

25 A Yes.

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1 Q So do you think at this particular stream that you
2 included in your declaration is the same type of stream system
3 as Big Fir, or at least the portion of Big Fir you walked along
4 during the site visit?

5 A No.

6 Q Thank you.

7 A It's more similar to what we call Dry Creek. It is an
8 intermittent stream. The premise of this was to demonstrate
9 the natural and inherent resilience of the riparian vegetation
10 and the channel narrowing with cessation of livestock grazing
11 over a 20-year period.

12 Q Is there any level of grazing that you think would be
13 appropriate -- do you find any livestock level of grazing
14 appropriate if you had to say?

15 A Yes. Absolutely.

16 Q How would you characterize that?

17 A Where are we talking about? Are we talking about a tame
18 pasture? Are we talking about in Iowa? Eastern Oregon? There
19 is a lot of areas where livestock grazing is appropriate and
20 sustainable and compatible with other uses, and there are other
21 areas where perhaps it is not so compatible.

22 Q Based on your earlier testimony, I understood that you
23 felt even like a 20 percent utilization standard was probably
24 excessive.

25 A When we talk about these generalizations like this and --

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1 what are your purposes? What are your management goals? Is it
2 sustainable livestock production? Fine. If you're looking at
3 impacts on the entire ecosystem, on biological diversity, on
4 other uses, on other public resources, maybe it's not. So,
5 again, it is site-specific and what are your management
6 objectives?

7 Q Okay. Fair enough.

8 MR. ODELL: I think that's it, Your Honor. Thank
9 you.

10 THE COURT: Redirect.

11 REDIRECT EXAMINATION

12 BY MR. BECKER:

13 Q I would like to start with just clarifying, Dr. Kauffman,
14 the testimony that you gave in your direct when you said that
15 reason for the damage that you saw was livestock. I believe
16 you went on from that to say that livestock were responsible
17 for cheatgrass infestation increases; that livestock were a
18 contributing factor to the expansion of juniper; and that
19 livestock grazing is a cause of potentially increasing the risk
20 of wildfire. Is that the gist of it?

21 A More or less. They changed the fire season necessarily --
22 other than the fact that they do increase the preponderance of
23 cheatgrass, they would lengthen the fire season as well. They
24 definitely changed the severity -- and I know I am splitting
25 hairs here, but I want to get it right. They changed the

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1 severity and the impacts of the fire season.

2 Q So I would just like, if I could, if I could make this
3 work -- I would like to show you an exhibit that was filed as
4 one of the Tuesday morning exhibits by federal defendants
5 before the TRO hearing. This is the Oregon Sage-Grouse Action
6 Plan. I think it has been shown again today. But page 3,
7 Mr. Odell was asking about the three primary widespread and
8 large-scale threats to sage-grouse and its habitat in Oregon
9 are juniper encroachment, invasive annual grasses, and
10 wildfire.

11 So am I correct that those three threats, in your
12 professional opinion based on the science, are all exacerbated
13 by grazing?

14 A Few people who ever had anything beyond a Range 101 would
15 disagree with that statement. I mean, that's the first thing
16 you might learn -- that overgrazing causes an increase in
17 invasive species. Overgrazing is going to cause an increase in
18 noxious species that are unpalatable, such as juniper. In the
19 general wildland fire science class we talk about the fire
20 regime concept, just the regular pattern and occurrence of fire
21 in an ecosystem. How would the introduction of an exotic,
22 large herbivore affect that natural fire pattern, and so
23 absolutely.

24 Q So in the same document, in this Oregon Sage-Grouse Action
25 Plan at page 10, if you could just read the paragraph that I've

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1 highlighted.

2 A "When improperly managed, livestock grazing can impact
3 sage-grouse by reducing grass height below levels needed to
4 shield nests from predators (Beck and Mitchell, 2000), reducing
5 forb abundance beyond levels needed for hens and chicks to meet
6 nutritional requirements, damaging soil crusts in a manner that
7 reduces vegetation diversity and contributes to annual-grass
8 invasion, impacting the ecological integrity of riparian
9 vegetation and other wetlands (Crawford et al., 2004), and
10 directly trampling sagebrush at levels of concern for providing
11 a winter food source and cover to sage-grouse."

12 Q And is that consistent with your testimony that livestock
13 grazing is likely to increase weed infestations and otherwise
14 damage --

15 A I think this is a much, much more scientifically based
16 statement than the generalized statement that was made earlier,
17 and even the fact that there are some references cited.

18 Q Thank you. I would like to just go back to your
19 declaration here. I think it was paragraph 16, where there was
20 a question about the amount of manure that livestock produce
21 and whether or not 1,500 AUMs was the allotted amount. Could
22 you just clarify, again, are you getting that figure from the
23 permit?

24 A I thought I got it from the permit.

25 Q Would it surprise you to know that, in addition to what

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1 was permitted on the Hammond allotment, which I can bring up
2 here -- it is in the opening brief.

3 So basically the 1,500 was adding together the
4 right-hand column, very roughly speaking.

5 A Uh-huh.

6 Q So on the Hardie Summer allotment -- excuse me -- on the
7 Hammond allotment, there were 471 permitted AUMs. It is my
8 understanding that there have been at least 1,200 to 1,400
9 excess AUMs grazed this year. So if that was the case on top
10 of the 471, would you say that more than 1,500 AUMs have been
11 consumed and therefore a comparable number of feces deposited?

12 A Probably. I can do the math.

13 THE COURT: Are you asking him whether or not 400
14 plus 1,200 is greater than 1,500?

15 MR. BECKER: Yes.

16 THE COURT: Okay.

17 BY MR. BECKER:

18 Q You also mentioned, I believe -- you had mentioned, I
19 believe, an article by Roath and Krueger about cattle grazing
20 influence in a mountain riparian zone. Again, could you
21 refresh our recollection as to what that said.

22 A That was a study done by a fellow grad student and my
23 major professor, Bill Krueger. Cattle grazing in a mountain
24 riparian zone -- basically -- I can't get the numbers exactly
25 right -- but about 2 percent of the area was riparian zone.

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1 They did quite a bit of clipping utilization about
2 productivity. It was about 18 percent of the total forage
3 produced, but about 80 percent -- 78 percent utilization was in
4 the riparian zone.

5 Q Okay. Thanks.

6 A That's not uncommon for other sites I have seen throughout
7 the West.

8 Q Including in the Kauffman and Krueger 1984 that you
9 attached to your second declaration?

10 A Right.

11 Q I think he would also like to go back to your declaration
12 here and the photographs that you attached showing the
13 Hart Mountain conditions.

14 A Yeah.

15 Q I believe that you -- that there is a statement in
16 Dr. Stringham's declaration about the tragedy of the commons.
17 Could you kind of explain what -- you seem to express some
18 concern.

19 A Well, you know, her suggestion was that this was
20 uncontrolled, non-scientific grazing that people -- the tragedy
21 of the commons, which would suggest that everybody is grazing,
22 and there are no restrictions at all. And this was kind of
23 hurtful, because I knew Dave Franzen was the range con on the
24 site and a permittee with the O'Keefes. They were grazing
25 permittees working on the site. They were very good range cons

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1 working on the site with very, very good -- the best grazing
2 management that they could possibly do, you know. It was
3 professional range management that hasn't been altered to any
4 great extent since that time.

5 Bill Krueger -- once again, both Tamzen's and my
6 major professor. Tom Bedell, the state range con, worked
7 diligently with Hart Mountain to keep the cows on and came up
8 with good grazing management systems. So this is very
9 representative of grazing at the time -- of pretty professional
10 level grazing and commitment to maintain productivity of
11 species like antelope, for example.

12 At the same time the grazing practices are very,
13 very -- no different today. If you read the approaches to
14 grazing that the BLM is undertaking on the Hardie Summer and
15 these other allotments, they're far more primitive than the
16 type of grazing management that is occurring here.

17 Q Thank you. You mentioned that you had a photograph in
18 response to one of Mr. Odell's questions. What photograph are
19 you referring to?

20 A You mean in terms of channel recovery?

21 Q I'm not sure what the question was.

22 A Well, he asked me can you look at evidence of channel
23 recovery from a single visit. Clearly we would like to have 20
24 years of research, like we have here, which demonstrates pretty
25 quantitatively the shifts in time. But, no, what we have is

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1 some headwater streams --

2 Q If I could stop you. I thought there was a specific
3 question that Mr. Odell asked whether you had a photograph of
4 something you could show, and you said yes, but then I don't
5 know what photograph --

6 A It was of a headwater stream showing channel recovery.

7 Q In the Hardie Summer allotment?

8 A In the Hardie Summer allotment.

9 Q Is that something that's in the record?

10 A No.

11 Q Is that something we can produce to the Court? I don't
12 know that we've produced to the other side, but it seems
13 responsive to your question.

14 THE COURT: Since he is your witness, why don't you
15 talk to him offline when he is done with the examination. If
16 you want to produce an exhibit, confer with Mr. Odell. If
17 there is no objection, send it to me, consistent with the
18 deadlines we've already described.

19 MR. BECKER: Very well. Thanks. I think that's all
20 we have.

21 THE COURT: All right. Any recross within the scope?

22 MR. ODELL: Just one. If I may, Your Honor.

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B. Kauffman - ReD

RE CROSS-EXAMINATION

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BY MR. ODELL:

Q In discussing the three primary threats, as identified in the Sage-Grouse Conservation Action Plan, I understood you at this point to talk to how those three primary threats could be exacerbated by overgrazing instead of just grazing in general. Is that your testimony in response to the question from Mr. Becker?

A You would need to define what "overgrazing" and what "grazing" means.

Q I am just asking you is that your testimony. At this point in your testimony did you use the term "overgrowing" as opposed to just "grazing" in general?

A I don't recall.

Q You don't.

MR. ODELL: Okay. Thank you. That's all, Your Honor.

THE COURT: All right. Dr. Kauffman, I take it that you know Dr. Howard Horton.

THE WITNESS: I do.

THE COURT: He is the Court's scientific advisor on another case. Please give him my regards.

THE WITNESS: I will.

THE COURT: And I assume you know Dr. Lubchenco?

THE WITNESS: I do. She is one of my heroes as well.

1 THE COURT: Give her my regards as well.

2 Let me ask, Ms. Brooks, you wanted to ask Dr. Braun a
3 question about the Smith report. I didn't let you do it
4 because the Smith report was not in evidence. But in light of
5 what you all are going to be doing, do you have a question that
6 you want to re-call Dr. Braun about the Smith report?

7 MS. BROOKS: No, Your Honor. It was just to refute
8 it.

9 THE COURT: That's fine. I just wanted to give you
10 that option if you wanted it.

11 Do plaintiffs have any further witnesses?

12 MR. BECKER: We do not, Your Honor.

13 THE COURT: The Government may call its first
14 witness.

15 MR. GRENHAM: Your Honor, we call Matthew Obradovich.

16 MR. ODELL: Your Honor, may I ask a simple process
17 question while Mr. Obradovich is coming to the stand? Earlier
18 you said you wanted to wrap up by 5:00. Is that still your
19 intent?

20 THE COURT: It is. What do you want to do if you
21 don't get through all of your witnesses by 5:00?

22 MR. ODELL: I think we would like to maybe confer at
23 that time or think about a date next week when we could put on
24 our other two witnesses. I would like, at least, let
25 Mr. Obradovich finish his testimony today, if possible.

M. Obradovich - D

1 THE COURT: Well, since you told me Mr. Obradovich's
2 direct examination will be about 30 minutes, I'm positive we
3 will complete that examination today. If you want, for next
4 week, I am not available at all on Monday. On Tuesday, I have
5 two criminal matters in the morning, but I am available all
6 afternoon on Tuesday, July 2nd. Wednesday is a bit tougher,
7 but we could find some time to squeeze something in. I'm
8 planning to be in the courthouse on July 5th, but it is not
9 going to be open, and I don't want to ask my courtroom deputy
10 or court reporter to do that. Then we are pretty much out of
11 luck.

12 MR. ODELL: Thank you, Your Honor.

13 THE COURT: Mary, swear in the witness.

14 (The witness was duly sworn.)

15 THE CLERK: Thank you. Please be seated. Would you
16 please state your name for the record, spelling your last.

17 THE WITNESS: I'm Matthew Obradovich. Last name is
18 O-B-R-A-D-O-V-I-C-H.

19 DIRECT EXAMINATION

20 BY MR. GRENHAM:

21 Q Mr. Obradovich, is it fair to say that you are a wildlife
22 biologist working with the Burns District of the Bureau of Land
23 Management?

24 A Yes.

25 Q And does that area, the Burns District, include the

M. Obradovich - D

1 Steens Mountain area as well as the four grazing allotments at
2 issue in this case?

3 A Yes.

4 Q Is it fair to say that you have a bachelor's of science in
5 wildlife science as well as bachelor's of science in rangeland
6 resource management both from Oregon State University?

7 A Yes.

8 Q Have you ever testified in court before?

9 A I have not.

10 Q How many years have you been working as a biologist in the
11 Burns District?

12 A Almost 20 years now.

13 Q Have you carried out post-fire sagebrush planting
14 restoration efforts on the Burns District?

15 A I have, yes.

16 Q Do you have experience monitoring sage-grouse populations
17 on the Burns District?

18 A I do.

19 Q Have you been to the Hardie Summer and Mud Creek
20 allotments?

21 A Yes, I have.

22 Q Did you help organize, as well as attend, the tour for
23 plaintiffs' experts and defendants' experts on June 20th last
24 week?

25 A I did.

M. Obradovich - D

1 Q Can you describe the major stages of the life cycle of
2 sage-grouse as you've observed on the Burns District?

3 A Yeah. Usually beginning in March, the early part of March
4 to March 15th, we see males coming to the leks to start
5 strutting. It varies from year to year. They are usually on
6 the leks all the way through about the first week of May.
7 Females start coming into the lek to breed during the later
8 part of March. Usually, as Dr. Braun referred to, any late
9 nesters or renesters may come back during that latter part of
10 April through the first week of May to rebreed.

11 Usually nesting occurs during that April, May, and --
12 through the May period. But I think most of our hens, the
13 majority of the hens are done with hatching, if they have had a
14 successful nest, by the middle of June to the third week of
15 June, somewhere in there. I'm not aware, other than in the
16 literature, any nesting occurring through that first week of
17 July.

18 Q And the following nesting season, what's the next life
19 cycle?

20 A So according to what we've set out in our approved
21 resource management plan, the early brood-rearing period --
22 breeding, nesting, and early brood-rearing period ends
23 somewhere around the end of June. Then we start into the late
24 brood-rearing period that goes from July through September.
25 Then usually sometime in October sage-grouse will start

M. Obradovich - D

1 shifting their diets to particularly sagebrush. At that time
2 it is considered fall into winter habitat, or wintertime, until
3 you get back around to that first part of March when breeding
4 season starts again.

5 Q Dr. Braun discussed leks. Just to add to that
6 information, can you describe what a lek looks like on the
7 ground?

8 A Usually it is pretty sparse vegetation. It may be low
9 sage. It may be mostly grasses, but usually there is a
10 component of big sage near most of the leks. It may not be too
11 close. It may be within half a mile or so, but usually there
12 is a component of big sage where females and males go to roost
13 after males strut during the day.

14 Q How does the presence of juniper trees affect sage-grouse
15 use and habitat?

16 A For the most part they will avoid taller structures where
17 predators can perch, in this case raptors and/or ravens,
18 depending on the time of year. Raptors will be looking for
19 sage-grouse in the trees during breeding season and pretty much
20 all year around. Ravens are probably more of a problem during
21 the nesting period and possibly early brood-rearing period.

22 Q There has been some discussion of the Steens PAC or
23 Priority Area of Conservation for sage-grouse. What is that?

24 A It was an area that was established through a process
25 started by ODFW in their 2011 plan. It was originally

M. Obradovich - D

1 called -- all of the PACs were originally called core areas.
2 ODFW limited their description to habitats to core areas, which
3 were usually determined by the number of leks, the number of
4 males on the leks, the consistency of that population of males
5 at that lek over time. Then a mathematical model was used to
6 determine the width of the area around the lek that was
7 included. Usually it was somewhere around four to five miles.

8 The other area that they had was low-density habitat,
9 which also included some leks but also other ranges, such as
10 brood-rearing lek range, late brood-rearing range, areas that
11 were still important to sage-grouse, but not as important as
12 the lek sites in those core areas.

13 Q Why do biologists count sage-grouse at leks?

14 A Again, as Dr. Braun referred to, the males return there
15 consistently from year to year to the same spot. Numbers may
16 vary from year to year and may vary through the season, the
17 breeding season as well, but, again, in what are called trend
18 leks that have been monitored a lot over the years are now what
19 we call PAC trend leks. Usually we try to get to those three
20 times a year. "We," I mean BLM and ODFW. "ODFW" being the
21 Oregon Department of Fish and Wildlife being the driver in this
22 effort, but us helping them. Again, it is for determining
23 populations or estimate populations of male sage-grouse and
24 populations of sage-grouse in general.

25 Q Have you accompanied the Oregon Department of Fish and

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1 Wildlife biologists in conducting sage-grouse counts at leks at
2 the Burns District?

3 A I have over the years. I have done a few of my own counts
4 as well in different areas.

5 Q I'm going to re-project a graph that was shown earlier.
6 It is from your second declaration, the last page. Can you
7 discuss generally any trends that you've observed on the Steens
8 PAC over the last two decades? By "PAC," I mean Priority Area
9 of Conservation?

10 A Sure. In this PAC -- and I arrived back in Burns in early
11 2000, so in going to some of the different leks on the PAC,
12 there was an increase to about 2005, and then the population
13 plummeted pretty much through 2007. Then it has been
14 fluctuating on an annual basis since that time.

15 Q What factors affect sage-grouse population counts in the
16 Steens PAC?

17 A There are different factors that will affect it. One
18 would be climate. Another would be just the general condition
19 of the habitat on a year-round basis. So those two factors are
20 the main ones that seem to affect it.

21 Q Are there ungrazed areas near Steens Mountain where
22 sage-grouse population trends have been tracked.

23 A The nearest one I know of is Hart Mountain.
24 Christian Hagen in the 2011 strategy talks about that and
25 displays a graph in there, and I refer to it in my first

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1 declaration. It talks about leks in Hart Mountain. Actually
2 the leks in Hart Mountain have been counted probably more
3 consistent than leks than others just because of the amount of
4 studies that have gone on on Hart Mountain. So that graph
5 compares the counts of those leks with counts of leks from
6 other similar areas around Oregon.

7 Basically the trends in those leks, both in grazed
8 and ungrazed areas, track each other. They are not exactly the
9 same, but the fluctuations in the populations are the same.
10 They are very similar. I think he only shows that graph
11 through about 2010, but it is very similar to what you see in
12 the Steens PAC.

13 Q Thank you. Let's move to discussion of the Hardie Summer
14 allotment. Presently is there suitable habitat for sage-grouse
15 on the Hardie Summer allotment?

16 A Yes. Mainly in the southern portion that we visited on
17 our tour where there's sufficient sagebrush cover, sufficient
18 grasses, and forbs in the understory.

19 Q What part of the sage-grouse life cycle would overlap
20 grazing on the Hardie Summer allotment under that present
21 Hammond permit?

22 A It would overlap with the late brood-rearing period. So
23 in the permit, the way it was set up, my understanding, the
24 part we visited would not see any livestock until about
25 August 1st, which at that time, based on what I saw, most of

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1 the forbs that were there would probably be drying up, would
2 not be as attractive to sage-grouse as they would be at this
3 point in time when we were up there visiting. Many of the
4 grasses would probably be in that same state.

5 So I would expect that sage-grouse would use that
6 area as roosting habitat during the day and hiding cover, but
7 they would be going other places outside the allotment a little
8 higher the Steens where there are wet meadow areas and small
9 wetlands that have emergent vegetation around them to get the
10 nutrition they need. And again, wet areas would provide the
11 bugs, which provide nutrition as well as the plants.

12 Q What is the significance of forbs or grasses drying up?
13 Why does that matter?

14 A Usually when the forbs and grasses dry up, the nutritional
15 value of those plants to whatever is eating them decreases. So
16 during active growth the plants have more nutrition in them
17 than they do when they start to dry out.

18 Q You indicated that the sage-grouse might move to wetter
19 areas. Would you expect the sage-grouse to move to
20 Big Fir Creek?

21 A I would not. Based on the mainly overstory of aspens in
22 that system, they would not move down into Fir Creek as far as
23 I know. They would stay up in the higher elevation areas where
24 there was -- again, one, because of the trees, all of the aspen
25 trees; two, they would be looking for areas that are open, more

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1 meadow, wetter vegetation that would provide suitable forage
2 for them.

3 Q Why would the aspen be a deterrent to the sage-grouse
4 using Big Fir Creek?

5 A Again, it goes back to a similar situation as with the
6 juniper. They don't like tall structures that would house
7 predators or allow predators to perch and prey on them or the
8 chicks. There's a study that is ongoing in Lakeview right now
9 where they have been monitoring sage-grouse hens over the last
10 eight to ten years, and the work that is coming out of that
11 is -- there's a thesis by Severson in 2017 that I cited in my
12 declaration that talks about the avoidance of sage-grouse of
13 junipers, in this case of aspens, by up to 800 meters.

14 Q Is there sagebrush present on Hardie Summer allotment to
15 serve as cover for sage-grouse?

16 A Yes, there is. The area we visited on the tour is, again,
17 sufficient sagebrush cover.

18 Q In light of the sagebrush present on the allotment, would
19 there be reason for sage-grouse to nest in grasses instead of
20 sagebrush?

21 A Not in that area, no. Depending on the year, that area on
22 drier years with less snow is probably available for them to
23 nest in when the snow level doesn't get below 7,000 feet.

24 Q You discussed the northern part of the Hardie Summer
25 allotment was burned. What type of vegetation characterizes

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1 that area?

2 A Part of it burned, from what I could gather, about 2,600
3 acres burned over a couple of different years pretty close
4 together. Some was the Grandad Fire; some appeared to be
5 another burn from the previous year.

6 That area is characterized by very little sagebrush
7 on the ridges. There's mainly grasses. There is some
8 sagebrush starting to come back in. Then the other areas where
9 sagebrush remains, there is an overstory of juniper that is at
10 a density that would pretty much exclude sage-grouse in those
11 areas.

12 Q Overall for the Hardie Summer allotment, where would you
13 expect sage-grouse to be located?

14 A Most likely, from what I've seen, the southern half south
15 of Little Fir and Big Fir Creeks in that area that we visited
16 off north of the road.

17 Q In your opinion, would the livestock grazing authorized
18 under the Hammond permit harm sage-grouse habitat on the
19 Hardie Summer allotment?

20 A No. I don't see that it would harm the habitat there.
21 There seems to be sufficient grasses and forbs. Again, I have
22 not physically been in the northern part of that allotment, but
23 with the lack of sagebrush in the area that were burned, you
24 won't see sage-grouse using those areas to any great extent.
25 They would most likely be moving to areas of higher sagebrush

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1 cover, such as in the south half of the Hardie Summer
2 allotment.

3 So I wouldn't expect grazing there to affect
4 sage-grouse habitat in any way, shape, or form. And even in
5 the southern end their still seems to be plenty of forage
6 available, and by the time the cows would get there, the
7 plants, like I alluded to earlier, would be pretty well past
8 their prime. Grazing after the plants have set seed and
9 started to dry out shouldn't affect the health of those plants.

10 Most of the forbs, which sage-grouse would feed upon,
11 would be pretty well dried out -- flowered out and dried out by
12 that time. So there would be little effect on the health of
13 those plants as well.

14 Q So when you speak of plants, you are referring mainly to
15 forbs and grasses?

16 A Correct. That's what would be overlapping as far as
17 livestock and sage-grouse.

18 Q In terms of making sure those grasses are available to
19 sage-grouse the following season, are you concerned that the
20 Hammond permit resulting in forbs and grasses being harmed such
21 that they wouldn't be available for sage-grouse the following
22 year?

23 A No. If they are past their morphology stage where they
24 are drying out, then they've done their bit for the year to
25 reproduce, and grazing them would not have any effect on the

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1 following year's production.

2 Q There has been some discussion that sage-grouse on
3 occasion may choose to use tall grass as cover in lieu of
4 sagebrush. Is the site potential on the Hardie Summer
5 allotment consistent with having abundant tall grasses?

6 A From the area that we visited, the tallest grass would
7 probably be Idaho fescue in that system, which the leaves would
8 probably be about eight inches tall. It would be considered a
9 tall grass.

10 Could you repeat the question?

11 Q Is the site potential consistent with having abundant tall
12 grasses that sage-grouse could use for nesting in lieu of
13 sagebrush?

14 A In that area, if there was no sagebrush, there would just
15 be tall grasses, and I don't think that would be sufficient to
16 hide sage-grouse nest in those conditions without sagebrush.

17 Q Are there leks on the Hardie Summer allotment?

18 A Not to my knowledge. As far as I know, ODFW has not told
19 us of new leks that they have found up there. The last time it
20 was surveyed extensively would have been in 2007, where they
21 did find other leks on other parts of the Steens but not in
22 that area.

23 Q In your experience in the Hardie Summer allotment, does
24 the 50 percent utilization standard under the permit harm the
25 vegetation?

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1 A No, it does not. The 50 percent utilization standard
2 should allow for livestock to use those plants and to have
3 enough reserves set up from grazing that they would not be
4 harmed by it.

5 Q Even if there were grasses that sage-grouse hens elected
6 to nest in, would the livestock under the scheduled permit
7 affect the viability of those grasses?

8 A In my opinion, no. It's late enough in the season that
9 the grasses would have reached their -- pretty much their full
10 potential growth and stored enough root reserves through
11 photosynthesis and still be healthy plants the following year.

12 Q Let's move to Mud Creek allotment. There has been
13 suggestion obviously there is a sage-grouse lek in the
14 Mud Creek allotment. Do you know when it was first discovered
15 by people?

16 A That, I'm not sure of. I know, even though it didn't show
17 in the record, that Dr. Braun provided, I think in his first
18 declaration, I visited that lek -- the north -- I was thinking
19 of the North Bridge lek -- I'm not sure when the South Bridge
20 Creek lek was first discovered. I know somewhere about
21 2005-2006, somewhere in there, we increased -- ODFW and us
22 increased trying to monitor lek as part of being able to
23 characterize what was going on with that lek.

24 Q Which part of the sage-grouse life cycle would grazing
25 overlap at the Mud Creek allotment under the Hammond permit?

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1 A It would probably overlap with nesting and early
2 brood-rearing, so middle of May through the end of June.

3 Q Is there suitable nesting and brood-rearing habitat in the
4 Mud Creek allotment?

5 A In my opinion, no. Most of what was suitable in that
6 allotment burned in the Grandad Fire, which took out quite a
7 bit of the sagebrush cover, both Wyoming big sage and low sage.
8 There are very few plants -- sagebrush plants left. Those that
9 are there are pretty much associated with rockier areas, where
10 juniper still exist. Alluding to what I commented on earlier,
11 even though those are available, hens would probably not nest
12 in those areas because of the juniper.

13 Q Do you have any understanding of how there can be a lek
14 without nesting and brood-rearing habitat on the Mud Creek
15 allotment?

16 A I think Dr. Braun alluded to earlier in his testimony that
17 hens will return to leks where they have bred before, but if
18 they don't find suitable nesting habitat, they will probably
19 travel distances to where there is suitable nesting habitat. A
20 lot of times in -- when they return to an area to nest, they
21 may try to nest there even though there isn't sufficient
22 sagebrush cover. But if they fail at that attempt, they may go
23 back and rebreed and move to someplace else to reneest that has
24 suitable sagebrush cover.

25 Q Would BLM like to restore sagebrush and native grasses to

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1 the Mud Creek allotment?

2 A That was in the emergency stabilization rehabilitation
3 plan for the Grandad Fire, what was called the South End
4 Complex. We did have in there to plant sagebrush seedlings in
5 that area to try to establish sagebrush in that area, but we
6 did not get funded during that time period and over the years
7 have not received as much funding as I would like to restore
8 sagebrush in some of these areas that have burned.

9 Q In your opinion would eliminating grazing accomplish
10 restoration of sagebrush and native grasses?

11 A No, it wouldn't. In the first part for sagebrush,
12 sagebrush is not very abundant, like I said, on the allotment
13 except where there is junipers and seed from sagebrush. There
14 is not -- it does fall that far from the plant, maybe 10 to
15 15 feet on average per year. So by the time you get one
16 plant -- and then with Wyoming big sage, which a lot of the big
17 sages in that area, the viability of the seed is there for the
18 first year, but if it doesn't germinate that first year, then
19 the viability goes way down. It has to have some pretty
20 specific conditions to germinate and sustain through that first
21 year.

22 As far as the grasses go, part of -- I'll go back to
23 sagebrush and talk about low sagebrush, because low sagebrush
24 takes longer to reestablish. It doesn't produce very much seed
25 in the first place, and since it is lower to the ground, the

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1 seed probably doesn't travel as far. There are no sources, as
2 far as I know, of low sage near to where the lek is. When we
3 visited it, all you could see was grasses for about a mile in
4 every direction.

5 So that's going to take probably a long time, well
6 over a hundred years, to reestablish from seed. As far as the
7 grasses go, we try to reseed areas that we know have the
8 potential to have a successful reseeding -- whether it's native
9 or introduced perennial grasses. One of the reasons we use a
10 mixture of native, perennial, and non-native perennial grasses
11 is to increase our chances of having that grass structure there
12 that, one, holds the soil; and two, provides other ecosystem
13 services, like nutrients to the soil. If we didn't,
14 cheatgrass, which will take over burn sites fairly readily
15 within a year or two after a fire, doesn't produce those
16 services and will actually outcompete some of the native
17 perennial grasses that are still there, because a lot of times
18 they are in a weakened state after the fire. And most likely
19 in that fire a lot of perennial grasses were killed as well due
20 to the intensity of the fire.

21 Q So the BLM and plaintiffs agree, probably along with a lot
22 of other people, that the Mud Creek allotment is not in the
23 condition that people would like with regard to native
24 sagebrush or forbs or grasses. But back to the question of
25 grazing, will closing this area to grazing bring those back at

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1 a quicker rate than without -- than with grazing?

2 A No. It is my opinion that with rest you will get that
3 increase in cheatgrass still throughout the allotment, just
4 because of the competitive nature of cheatgrass with other
5 native plants.

6 Q In your opinion would livestock grazing, authorized under
7 the Hammond permit, harm sage-grouse habitat under the
8 Mud Creek allotment?

9 A No. There is very little sage-grouse habitat left there.
10 As Dr. Braun alluded to, even though the lek has still been
11 active, and even though the number of males have decreased, the
12 birds are still using it. So if there is no nesting habitat,
13 no brood-rearing habitat, as far as I know in that allotment,
14 right now there would be no effects to sage-grouse habitat by
15 grazing.

16 Q Let's move to a discussion of fire. When referring to
17 fire on rangeland, what is meant by the term "fine fuels"?

18 A Usually fine fuels are the grasses that grow, whether they
19 are annual grasses or perennial grasses.

20 Q When we speak of annual grasses, what grasses are you
21 speaking of?

22 A Mainly cheatgrass, but there are others, like Medusahead
23 that are present in the Burns District active in the same way
24 as cheatgrass is.

25 Q Is it fair to say that cheatgrass and Medusahead are both

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1 non-natives and undesirable?

2 A Correct.

3 Q And typically native grasses are native and desirable?

4 A Yes.

5 Q Can you discuss the impact of livestock grazing on the
6 presence of fine fuels for fires?

7 A Livestock would have the impact of reducing the fine fuels
8 in a fire, or fine fuels a the fire would use -- and I guess
9 this goes kind of back to your question about resting. Under
10 conditions of rest, perennial -- native perennial grasses will
11 build up dead material in the centers of the plants, in the
12 crown of the plants, and in the event of a fire that crown will
13 burn hotter and cause mortality to those native perennial
14 grasses.

15 Q Do the overall effects of fire on plants differ based on
16 the abundance of fine fuels throughout an allotment?

17 A Could you repeat that question.

18 Q Do the overall effects of fire on plants differ based on
19 the abundance of fine fuels throughout an allotment?

20 A So fine fuels -- if you have sagebrush, fine fuels will
21 allow the fire to get into the canopy of sagebrush and pretty
22 much, even if there aren't very many fine fuels, most sagebrush
23 will die with light fire as well -- lighter fire, I should say,
24 as well as high-intensity fire.

25 In the juniper-dominated areas, depending on how much

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1 fine fuel you have there, it may or may not reach the canopy of
2 the juniper. For most junipers you need almost sagebrush in
3 the understory to carry that fire into the canopy and kill
4 juniper. So just fine fuels in the understory of the juniper
5 usually won't kill the juniper. It will kill or will burn
6 whatever is underneath the juniper.

7 Q Why is cheatgrass undesirable from an ecological
8 perspective in the Burns District at least?

9 A Well, from the standpoint of -- one, it does help improve
10 the fuel load for fires, and that varies year to year depending
11 on the moisture. The other thing would be that it, again,
12 outcompetes native plants. It has a competitive advantage of
13 germinating in the fall and starting to put down its roots,
14 being able to survive our harsh winters and, again, being able
15 to utilize moisture in the soil earlier than other native
16 perennials and forbs.

17 So by the time our native perennial grasses and forbs
18 start growing, there's already less water in that soil surface
19 for our native perennial grasses to use, and it does not
20 provide the nutrients once it dies. It doesn't provide the
21 same amount of nutrients that dead material provide to the
22 ecosystem.

23 Q How long has cheatgrass been documented on the
24 Burns District?

25 A I can't say for sure. I just know that in one of the

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1 articles -- actually, I think it was a chapter in a book by
2 Miller, et al., in 2011 that pretty much the extent -- the
3 range-wide extent of cheatgrass had been reached by the 1930s,
4 and that was another article that he cited. I think it was
5 Ziska, et al.

6 Q In your experience on the Burns District, will cheatgrass
7 find its way to disturbed areas regardless of the presence of
8 grazing?

9 A Yes. In a lot of areas it has found its way there, yes.

10 Q Can you address the plaintiffs' proposition that sagebrush
11 steppe landscapes are less susceptible to fire without grazing?

12 A I guess I would disagree with that just from the
13 standpoint that grazing can reduce the fine fuel load in areas
14 and reduce the intensity of fire and by grazing can allow our
15 firefighters to get there and in a reasonable fashion to help
16 suppress those fires so we don't lose any more sage-grouse
17 habitat.

18 Q Can you address plaintiffs' proposition that livestock are
19 causing the spread of juniper on the allotments at issue.

20 A Again, I think I haven't heard the word used, but
21 "historic" grazing through probably the '30s and '40s where
22 like the 1850s and '60s through the '30s or '40s allowed for
23 the expansion of juniper into areas that had previously burned
24 over the years from the reduction of fine fuels in those areas.

25 But since that time, with that increase of juniper,

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1 more seeds have become available to be spread across the
2 landscape as well by birds and also down-drainages, which is
3 one of the reasons you see juniper moving farther downslope
4 than in the past.

5 Q I'm going to show Dr. Kauffman's second declaration, page
6 10, figure 3, ECF No. 59. Do you recognize the location of
7 figure 3?

8 A Yes. I did not go over with him to the creek. We were on
9 the tour on the 20th of June, and we had stopped -- because of
10 the road that I was trying to find, we stopped and got out and
11 walked around for approximately five minutes or so looking for
12 that road. At that time, when I got back to the truck, we
13 realized we had not reached the road yet. I whistled over to
14 where they were standing on the edge of Lambing Creek Canyon,
15 and they came back. I think they asked what creek that was,
16 and as I said, "It's just a dry creek." In normal years it
17 would be dry at this time of the year. There is a reservoir
18 upstream from this, and Grandad Reservoir does overflow at
19 times on wet years like this when there is sufficient water,
20 which probably explains the water in the creek.

21 Q Do you know with how much of the time during the tour
22 Dr. Kauffman spent on this dry creek?

23 A It was probably about five minutes.

24 Q Did he go down to this stream?

25 A Not that I know of. Otherwise, I probably wouldn't have

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1 pegged on he and Dr. Vesta (phonetic), who was also on the trip
2 standing at the edge, and if they'd gone down, I would have
3 seen them over there.

4 Q Dr. Kauffman indicates this could be a perennial stream if
5 it were not so degraded. Do you agree with that conclusion?

6 A No. This is again an ephemeral stream that's dry most of
7 the year. The only reason, again, there is probably water on
8 there, one, is it is probably a wet year. If we were to take
9 out the reservoir up above, I think the flow would have already
10 stopped.

11 Q Dr. Kauffman, indicated that he went to the headwaters of
12 this stream. Were there any headwaters to this stream?

13 A There probably could be. But to the best of my knowledge,
14 I think he referred to it in the Hardie Summer allotment. I
15 have not been to any headwaters and, as far as I know, on any
16 USGS topo. maps there. I haven't seen any springs up in this
17 area that would act as a headwater at the head of that
18 drainage.

19 Q What is an ephemeral stream?

20 A Ephemeral would be that it may run part of the year based
21 on snow melt or some other condition, but usually it is dry
22 most of the year.

23 Q So it is not the intermittent stream, as Dr. Kauffman
24 characterized it?

25 A No. Usually intermittent streams have some perennial

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1 water year-round, but it may be in spots on the stream itself
2 in the drainage itself, and it may not be all the way through
3 the drainage.

4 Q Does it flow all the way to Mud Creek?

5 A I have never walked down this, but as far as I know, it
6 doesn't.

7 Q Would there be redband trout present in this dried creek?

8 A No.

9 Q Dr. Braun testified that grazing would increase cheatgrass
10 on Mud Creek and Hardie Summer allotments. Do you agree with
11 that?

12 A No, I don't.

13 Q Why not?

14 A I guess my experience and from some of the studies that
15 have taken place with the staff at the Agricultural Research
16 Service in Burns that have been studying cheatgrass and its
17 effects and grazing management and its effects on cheatgrass
18 from year to year, cheatgrass would reduce -- excuse me --
19 grazing would reduce the amount of cheatgrass overall over time
20 as opposed to resting from grazing.

21 Q Dr. Braun testified that livestock grazing on
22 Hardie Summer and Mud Creek allotments will cause habitat
23 fragmentation. Do you agree with that?

24 A No, I don't. I think we would have seen that by now if
25 that was occurring just based on -- even though it hasn't been

1 grazed for five years, the habitat would have looked or would
2 have been fragmented earlier before grazing ceased. We have
3 seen the effects of that still.

4 Q With your experience on the Hardie Summer allotment, would
5 you agree with plaintiffs' experts that grasses are not a major
6 fuel source for fire on that allotment?

7 A I would say that they still are. There was plenty of
8 understory grasses; namely, native perennial grasses in that
9 system, that it would still be a factor in a fire.

10 MR. ODELL: Thank you. That's all I have.

11 THE COURT: Mr. Obradovich, did I hear you say that
12 wildlife generally do not want to eat dried forbs and grasses
13 because it doesn't have as much nutrients? Did I hear that
14 correctly?

15 THE WITNESS: Correct.

16 THE COURT: I assume that's true with cows, as well.
17 I assume cows will eat dried grass or dried forbs, if that's
18 all there is, but they generally don't want to? They prefer
19 more nutrient-rich material; am I correct?

20 THE WITNESS: Correct.

21 THE COURT: So if we have a situation where we have
22 an awful lot of dried-out forbs and grasses in one area, would
23 you expect that the cows would end up migrating more towards
24 riparian areas?

25 THE WITNESS: That's a possibility.

1 THE COURT: Let me also ask you -- you were here
2 during the testimony on Dr. Kauffman and Dr. Braun. You heard
3 their testimony. I've heard a number of things that you've
4 disagreed with. Was there anything you agreed with?

5 THE WITNESS: In general?

6 THE COURT: The substantive, important stuff, not
7 background stuff. Was there anything at all that they said
8 that you agreed with?

9 THE WITNESS: Not off the top of my head.

10 THE COURT: Okay. Cross-examination.

11 MS. BROOKS: Thank you, Your Honor.

12 We would ask for about 45 minutes to cross-examine
13 Mr. Obradovich. Could we have him come back at the next
14 hearing as well so we can follow up on anything that is
15 still --

16 THE COURT: Asking for both is unreasonable. One or
17 the other is a little bit more reasonable. When Mary comes
18 back, I'll ask her, but, Dennis, can you stay with us until
19 5:30?

20 THE COURT REPORTER: Yes.

21 THE COURT: Mary, can you stay with us until 5:30?

22 THE CLERK: Yes.

23 THE COURT: All right. You may have your 45 minutes
24 now.

25 MS. BROOKS: All right. Thank you.

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1 THE COURT: Use them wisely.

2 MS. BROOKS: I'll do my best, Your Honor.

3 CROSS-EXAMINATION

4 BY MS. BROOKS:

5 Q Mr. Obradovich, thank you for being here and answering so
6 many questions. I just want to ask really quickly, have you
7 ever conducted any scientific research that's peer-reviewed
8 about sage-grouse?

9 A About sage-grouse, no.

10 Q Thank you. Have you participated in training sessions
11 with Dr. Braun about sage-grouse?

12 A I have attended wing-bees that were held by the Oregon
13 Department of Fish and Wildlife in Burns, Oregon. During those
14 wing-bees he did provide or tell us how to identify the age of
15 the both chicks, hens -- chicks and adults in sage-grouse based
16 on the molt pattern and the length of the different primary
17 feathers on those wings.

18 Q Thank you, Mr. Obradovich. I just want to start off by
19 just correcting a statement of fact that you made. I want to
20 pull up the grazing permit. So in your testimony you said that
21 sage-grouse -- that grazing wouldn't begin on the Hardie Summer
22 allotment until August 1st, and by then most of the forbs and
23 grasses that sage-grouse depend upon would have dried up. But
24 doesn't this grazing permit show that in fact grazing turnout
25 can occur on the Hardie Summer allotment on July 1st?

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1 A Yes, it does. But my understanding is that they would
2 start with the cows in the north end of the allotment. And
3 again, that has substantial juniper in it and areas that
4 sagebrush have burned in 2005 and 2006. And my understanding
5 is that they would spend somewhere between two and four weeks,
6 two to four weeks on that north end, and then progress south
7 through the progression of pastures that are shown on the map.
8 And so they wouldn't reach that southern part of Hardie Summer
9 until around August 1st.

10 Q Is it fair to say, though, that the grazing on the Hardie
11 Summer allotment occurs during sage-grouse brood-rearing
12 season?

13 A Yes, it is.

14 Q Thank you. Let's see here -- I would also like to pull up
15 the SageCon map. I know you are familiar with this -- pretty
16 familiar with this allotment. This map was -- again, we filed
17 it with our reply brief, and it shows potential sage-grouse or
18 likely sage-grouse use of the allotment -- or the allotments.
19 You can see where the Hardie Summer allotment is. What does
20 this map show as far as the likelihood of sage-grouse presence
21 in the Hardie Summer allotment?

22 A It shows -- I guess I'm not sure what the green is. I
23 don't see one for the green. It is shown in most of those
24 drainages, but the brown is anywhere from -- depending on the
25 color, sage-grouse present possibly; sage-grouse probably

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1 present; also may be present; likely present.

2 Q And it also showed along Big Fir Creek in the sort of the
3 southern third of the allotment that not right on the riparian
4 area, but in the surrounding area that sage-grouse are probably
5 present, doesn't it?

6 A Yes.

7 Q Okay. So, Mr. Obradovich, this map also shows that
8 sage-grouse are also probably present or likely present just
9 adjacent to Little Fir Creek as well, doesn't it?

10 A Is that the drainage to which you are pointing to right
11 now? Is that the drainage?

12 Q Yes.

13 A Yes, it does.

14 Q And it also shows that they are likely or probably present
15 around Fence Creek as well, doesn't it?

16 A Yes.

17 Q So based on this map and your knowledge of the allotments,
18 would you say that it is fair to say that sage-grouse are
19 probably present during summer on this allotment while it is
20 being grazed?

21 A Yes.

22 Q Thank you. I just want to ask a few questions about the
23 fire history. Have you observed the effects of the 2006
24 Grandad Fire on the Mud Creek and Hardie Summer allotments?

25 A Mainly on the Mud Creek allotment. I have seen some of

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1 the pictures that were included in the rangeland health
2 standards in that -- kind of north of Fir Creek where the fire
3 occurred in the Hardie Summer allotment, but I haven't been to
4 that particular part of the allotment.

5 Q And to the best of the knowledge, were the Hammonds
6 accused of setting the Grandad Fire to increase forage for
7 their cattle?

8 A As far as I know they were accused, but never convicted of
9 that.

10 THE COURT: Did the BLM make any findings in that
11 regard?

12 THE WITNESS: I have not read the findings.

13 THE COURT: And are you familiar with the BLM's
14 report in 2014 that stated -- and this is at Docket 7-2 at page
15 17 -- "the Hammonds will no longer have the economic incentive
16 to burn public land allotments without authorization."

17 Are you familiar with that finding by the BLM?

18 THE WITNESS: Like I said, I haven't read this at
19 all, Your Honor.

20 THE COURT: And are you aware of the finding that I'm
21 referring to?

22 THE WITNESS: I guess not.

23 THE COURT: Okay.

24 BY MS. BROOKS:

25 Q Mr. Obradovich, if it were true that the Hammonds had set

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1 that fire, would it have violated the terms and conditions of
2 their grazing permit?

3 THE WITNESS: I can't speak to that.

4 THE COURT: That's a legal conclusion, and I really
5 don't need an expert witness to give me the information on that
6 point.

7 MS. BROOKS: Okay. Thank you, Your Honor.

8 THE COURT: Nor do I see any opposition to that point
9 by defendants. Let's cover the areas that are important to
10 cover.

11 MS. BROOKS: Okay.

12 BY MS. BROOKS:

13 Q Before the Grandad Fire were Wyoming big sagebrush and low
14 sagebrush present on the Mud Creek allotment?

15 A Yes, they were.

16 Q And after the fire, were they present?

17 A For the most part, no.

18 Q And to your knowledge, was the allotment rested for at
19 least five seasons immediately after the Grandad Fire?

20 A Not for five seasons.

21 Q Was the allotment grazed after the Grandad Fire?

22 A Not immediately, as far as I know. I think there was at
23 least one and possibly two years of rest after the
24 Grandad Fire.

25 Q Mr. Obradovich, are you familiar with the actual use

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1 records for 2006 and 2007 for this allotment?

2 A I have not seen those.

3 Q So we're going to try to pull those up for you. These
4 were filed -- we filed them, but we received them from the
5 Government -- that was Mud Creek and Hardie Summer.

6 THE COURT: Where can I find this in the docket?

7 MR. BECKER: This was one of the documents that we
8 had presented to the Government on Tuesday.

9 THE COURT: So the answer is it is not yet in the
10 docket?

11 MR. BECKER: It is not yet in the docket.

12 THE COURT: Okay. Thank you.

13 BY MS. BROOKS:

14 Q On the Mud Creek -- in this record, which is the grazing
15 records for Hammond and Hardie Summer and also it appears
16 Mud Creek for 2007, can you see what it says right on the
17 bottom on Mud Creek?

18 A Yes, I can.

19 Q Could you read that for me.

20 A It says -- are you talking about the text or the numbers?

21 Q The text.

22 A "For the month of November, as we were trailing home, we
23 spent 10 days on our allotments with 110 head."

24 Q And could you also read the numbers for us.

25 A "110 head from 10-29 to 11-15."

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1 THE COURT: What year was this again, please?

2 MS. BROOKS: This is 2007.

3 THE COURT: All right.

4 BY MS. BROOKS:

5 Q And what about the other ones? Did this show grazing on
6 the Hardie Summer allotment in 2007?

7 A Yes, it does.

8 Q Thank you. So in the Mud Creek allotment has sage-grouse
9 reestablished after the Grandad Fire burn?

10 A No.

11 Q Let's see -- you said you're not as familiar with the
12 Hardie Summer allotment. Can you attest to whether there was
13 sage-grouse present before the Grandad Fire on that allotment?

14 A Yes. In the areas that burned, there was sagebrush, yes.

15 Q And how about after?

16 A As far as I know, no. What I've seen from some of the
17 pictures is that there is some sagebrush still where there is
18 juniper, but for the most part what was between patches of
19 juniper burned pretty extensively, and that there is some
20 sagebrush return.

21 Q And so there is some sagebrush return. But would you say
22 that the Hardie Summer allotment has recovered from the effects
23 of the Grandad Fire?

24 A Can you define "recovery"? Are you talking perennial
25 grasses? Sagebrush? Sage-grouse habitat?

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1 Q Would you say it now closely resembles what it did before?

2 A No.

3 Q So you said that you spent -- you visited the Mud Creek
4 lek. Would you say you've visited it every year since 2006?

5 A No, I have not visited every year since 2006.

6 Q And are you aware that only two displaying males were
7 counted on the lek in 2019?

8 A I wasn't aware of that until Dr. Braun's first
9 declaration.

10 Q Based on your knowledge of trends on that lek, is that
11 more or less than have been counted on that lek in previous
12 years?

13 A Less. But it is also following the same trend as a lot of
14 other leks within that Steens PAC.

15 Q So does that give you cause for concern?

16 A Yes and no. I mean, it's one of those trends that we have
17 seen before. While it is increasing, we have seen these
18 fluctuations over the last 15, 20 years, and so we probably
19 won't know for sure exactly what's going on until we see what
20 the numbers are in the following years.

21 Q Didn't the burned area stabilization plan at page 12
22 recommend that if sage-grouse numbers are in decline or on
23 previously used leks or if previously used leks have been
24 abandoned, active rehabilitation or restoration of sagebrush
25 habitat should be conducted?

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1 A I'm not familiar with exactly that page of it, but I know
2 that was one of the things that we tried -- we were trying to
3 do and put in plans so we would have that in there. Again, as
4 like I said earlier, we did not get money to do that, so --

5 Q Would you -- so that hasn't occurred, right?

6 A Right.

7 Q And you stated in your declaration at paragraph 12 that
8 despite these degraded conditions females have been observed
9 coming to breed on the lek since 2006, right?

10 A Yes, they have.

11 Q Do you think it's fair to say that no sage-grouse use the
12 Mud Creek allotment during nesting and brood-rearing seasons?

13 A As far as nesting goes, I would say that if they do nest
14 there, either there is pockets of sagebrush that they are using
15 that I haven't seen, but mostly what I would characterize as
16 sage-grouse nesting habitat is outside the allotment down next
17 to east canal on the refuge to the south of the loop road about
18 three miles and probably up in Hardie Summer allotment in the
19 southeast and east.

20 Q But if sage-grouse are leking on the allotment and
21 breeding on the lek, then they are likely present, at least for
22 a certain interval, on the lek, right?

23 A Right.

24 Q Dr. Braun says that sage-grouse typically nest within two
25 to four miles of the lek where they breed. So you're saying

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1 there are suitable patches within about four miles of the
2 Mud Creek lek, in your experience?

3 A Yes. I think I have that in my first declaration.

4 Q And can cattle trample and disturb sage-grouse leks?

5 A I have never witnessed that, but it is possible.

6 Q You do state that in your declaration, your second
7 declaration, at paragraph 9.

8 And you also say in your first declaration at
9 paragraph 9 that open grasslands on the Mud Creek Allotment may
10 provide green forage for hens and bugs and green forage for
11 chicks.

12 Is that true?

13 A Could you repeat that question and could I see your
14 first --

15 Q Sure. Could you pull up the first Obradovich declaration.

16 A I thought it was second -- I thought you said my second
17 declaration.

18 Q In your second declaration you said that cattle can
19 trample and disturb sage-grouse nests. Then the second --

20 THE COURT: That's paragraph 9?

21 MS. BROOKS: Can you pull up the second declaration,
22 paragraph 9. Then we will go to the first declaration of
23 paragraph 9.

24 THE COURT: Where is that sentence?

25 MS. BROOKS: We have to scroll down, I think.

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1 BY MS. BROOKS:

2 Q So following the highlighted portion, could you read that
3 sentence for me.

4 A I will. I just want to note that this came from the Fish
5 and Wildlife Service Listing Determination on Greater
6 Sage-Grouse, so --

7 THE COURT: I'm not following you. I thought this
8 was your declaration.

9 THE WITNESS: It is my declaration. I just included
10 a part of the 2015 Fish and Wildlife Service Determination to
11 talk about properly managing grazing.

12 THE COURT: I'm not following you. There is no
13 quote. We're not quoting from that. When I read the sentence,
14 "Livestock can also trample or disturb nests and cause nesting
15 females to flush from the nest revealing the eggs to nest
16 predators, such as ravens," you put that statement in paragraph
17 9 of your second declaration.

18 THE WITNESS: Yes, I did.

19 THE COURT: And you put it in under oath and you
20 represented that you have personal knowledge of that.

21 THE WITNESS: That wasn't the intent of that
22 statement, Your Honor.

23 THE COURT: Well, you are not quoting from another
24 document like the 2015 endangered species listing, are you?

25 THE DEFENDANT: Yes, I am.

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1 THE COURT: Then where are the quote marks? I missed
2 them.

3 THE WITNESS: I must have left it out.

4 THE COURT: All right. That's not appropriate.

5 BY MS. BROOKS:

6 Q So moving on to the first Obradovich declaration, you also
7 state in paragraph 9 that open grasslands on the allotment may
8 provide green forage for hens and bugs and green forage for
9 chicks. Is that true? It is about halfway down, starting,
10 "While open grasslands."

11 A Yes, I see it. I'm just trying to re-read it so I
12 remember the context. Yes. "While open grasslands may provide
13 green forage for hens and bugs and green forage for chicks, the
14 open nature of these areas does not provide suitable
15 concealment for sage-grouse from predators as it did before the
16 Grandad Fire."

17 Q Do cattle eat green forage?

18 A Yes, they do.

19 Q Would there be less green forage if grazing were allowed?

20 A Overall, yes. But there would still be sufficient forage
21 for both livestock and sage-grouse.

22 Q You also say that there's not sagebrush cover on the
23 allotment, but is there grass?

24 A There is plenty of grass, yes.

25 Q Do cattle eat grass?

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1 A Yes, they do.

2 Q Would the height of that grass be reduced if grazing were
3 allowed?

4 A Yes, it would. But in many of those areas, such as where
5 we visited on the tour, the grass heights really wasn't
6 sufficient, in the first place in the ungrazed state, to
7 conceal sage-grouse.

8 Q Is there cheatgrass on the Mud Creek allotment and in the
9 Mud Creek lek site in particular?

10 A Yes.

11 Q And can't grazing serve as a vector for the spread of
12 invasive grasses?

13 A It can.

14 Q Thank you. You say that in your second declaration also
15 at paragraph 9.

16 So moving on to the Hardie Summer allotment. Isn't
17 it true that the Hardie Summer allotment provides habitat for
18 sage-grouse for spring and summer?

19 A Yes.

20 Q Isn't it generally more resilient than the Mud Creek
21 allotment?

22 A Based on what I know about it, yes.

23 Q And didn't you also state that native grasses could
24 outcompete cheatgrass generally due to this resilience?

25 A Yes.

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1 Q And you stated that sagebrush has returned in some burned
2 areas of the allotment?

3 A Yes.

4 Q And is there sagebrush in the unburned areas?

5 A Yes, there is.

6 Q And are there forbs and grasses?

7 A In the unburned areas, as far as I know, yes.

8 Q Do cattle eat forbs and grasses?

9 A Yes, they do.

10 Q And would there be less forbs and grasses if cattle
11 grazing were allowed?

12 A There would be less volume of the annual growth, yes. But
13 like I said before on direct, my understanding of when
14 livestock would be on that southern part of the allotment would
15 have been towards the end of the growing season of grasses, so
16 sage-grouse may still be there, but they wouldn't be focusing
17 on the grasses and forbs. They would be moving to wetter areas
18 not in the allotment that provide wet meadow areas or around
19 ponds that provide those nutritious forbs and grasses that they
20 would be eating on and more abundant bugs than would be present
21 in drying out sagebrush.

22 Q Mr. Obradovich, doesn't the SageCon map that we looked at
23 at the beginning show that sage-grouse are likely to probably
24 be present in those portions of the allotment in summer?

25 A Yes.

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1 Q Okay. And that would include in August?

2 A That would include in August. Again, what I would say
3 about this map is it is a modeled map. Without radio telemetry
4 work in that area to know where the sage-grouse are during that
5 time of the year, the best we can do is say, yes, that they may
6 be present.

7 Q And this is the best we can do then, right, at least for
8 purposes of today?

9 A Right.

10 Q Thank you. I want to talk a little bit about the
11 standards of rangeland health and the Rangeland Health
12 Assessments.

13 Do the standards of rangeland health consider
14 sage-grouse population trends in abundance?

15 A You know, usually when we are looking at No. 5 on there,
16 we are looking at habitat for sage-grouse as well as other
17 wildlife species in that area. So it is not just a
18 sage-grouse-centric evaluation, but sage-grouse do play into
19 that, yes.

20 Q And wasn't the Mud Creek allotment failing standards for
21 ecological processes and native sensitive special status and
22 locally important species in 2007?

23 A Yes. That was -- are we talking Hardie Summer?

24 Q Mud Creek.

25 A Mud Creek, yes. That was because the area had just

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1 burned, and so we were lacking the sagebrush component, which
2 was important for both sage-grouse and mule deer as far as part
3 of their winter range.

4 Q And what about Hardie Summer? Was that allotment meeting
5 standards in 2007?

6 A I don't remember exactly on that. I think it was meeting
7 most standards. I can't remember. If you can pull it up.

8 Q Yeah, we can pull up the Hardie Summer one; the 2007
9 Hardie Summer allotment.

10 MR. BECKER: What page?

11 MS. BROOKS: You'll have to scroll down to the
12 standards assessment, which is hard to find in this one,
13 unfortunately.

14 BY MS. BROOKS:

15 Q So these are the standard assessments. Let's just focus
16 on No. 5. Let's just focus on No. 5 for purposes of this
17 question.

18 So it says it's meeting No. 5, right?

19 A Yes, because the standard was achieved.

20 Q Wasn't this allotment burned in the Grandad Fire in 2006?

21 A Part of it was. Like I said earlier, about -- I want to
22 say about 1,600 acres in the Grandad Fire. I do believe in the
23 previous year there was about 1,000 that burned right next to
24 that as well.

25 Q Didn't that remove sagebrush and native grasses?

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1 A As far as I know, it removed sagebrush, but as far as I
2 know, the perennial grasses were still there.

3 Q But despite the lack of sagebrush and shrub cover, which
4 form the basis for the Standard 5 determination on the
5 Mud Creek allotment that same year, BLM never found that this
6 allotment was meeting Standard 5?

7 A Probably because there were more areas -- I mean, the size
8 of the fires is not very big as far as removal of habitat. So
9 there was suitable habitat for big game as well as migratory
10 birds, such as those that would necessary in sagebrush or
11 riparian habitats. So based on the amount of habitat that was
12 still left, it was meeting standards.

13 Q It did burn three of the pastures, though, right? It says
14 the fire burn the Bridge Creek, Thompson, and North fires, and
15 that's on -- that's on page 17, as I think our numbers -- let
16 me just pull this up. Yes.

17 Could you just read No. 14, please.

18 A No. 14 says, "No use in the Bridge Creek pasture because
19 of fires. The Grandad Fire burned a portion of the Bridge
20 Creek, Thompson, and North pastures. The Cabin and North
21 pastures were used in August and September of that year."

22 Q Thank you. Are you familiar with the 2018 land health
23 assessments?

24 A I have seen them, yes, but I was not part of that
25 evaluation.

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1 Q Okay. Are you aware that the Mud Creek allotment was
2 failing Standard 5 still for native desired species
3 basically --

4 A Yes. From what I remember, yeah.

5 Q Are you aware that this was still because of lack of
6 sagebrush cover due to fire history and invasive annual grass
7 presence?

8 A Yes.

9 Q Yet at the same time didn't BLM specifically find grazing
10 was not a causal factor, even though the fires that eliminated
11 the sagebrush and spread the annual grasses were set to
12 increase cattle forage?

13 A I can't answer that question, not the whole question.

14 Q Fair enough. Did BLM change management to change
15 sage-grouse needs as a result of that analysis?

16 A Not to my knowledge, no. It was -- the analysis was done
17 after several years of rest on that allotment, and so I was not
18 part of that process. So I don't know if there was any
19 discussion of changing the grazing or any management on that
20 area after the assessment was done.

21 Q In the 2018 Rangeland Health Assessment for the
22 Hardie Summer allotment, didn't that Rangeland Health
23 Assessment also find that the Hardie Summer allotment was
24 failing the Standard 5, even though it was meeting it in 2007?

25 A Yes. But I'm not sure what the conditions were as to --

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1 can you pull that up?

2 Q Sure.

3 A Again, I was not part of that assessment.

4 Q It will be at page 3. Doesn't it state here that the
5 reason for that failure was because of juniper encroachment and
6 fire risk because of invasive weeds, infestations, and fire
7 scars?

8 A Which paragraph?

9 Q That will be at the last couple of sentences in the second
10 paragraph.

11 A Could you repeat the question?

12 Q I think I was asking, isn't it true that BLM found that
13 the reason for the failure to meet Standard 5 was because of
14 juniper encroachment and fire risk from the invasive weed,
15 infestations, and big fire scars?

16 A Yes. But it sounds like those fire scars were in areas
17 adjacent to the allotment, not necessarily in the allotment,
18 but, yes, juniper encroachment into existing sagebrush and
19 riparian areas.

20 Q Okay. So moving on a little bit, are you familiar with
21 the categorical exclusion that BLM did this year to reissue the
22 Hammond's grazing permit?

23 A I know we did one. The BLM did one, but I was not part of
24 that process.

25 Q Do you know whether it considered how grazing would affect

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1 sage-grouse?

2 A I don't know.

3 Q Okay. In your second declaration you say that proper
4 grazing --

5 THE COURT: What paragraph?

6 MS. BROOKS: What was that?

7 THE COURT: What paragraph?

8 MS. BROOKS: Paragraph 9. Again, the second
9 declaration.

10 THE COURT: I have got it in front of me.

11 BY MS. BROOKS:

12 Q You say that proper grazing is not a threat to
13 sage-grouse. But isn't it true that improper grazing can
14 reduce vegetation cover, make nesting and brood-rearing habitat
15 less suitable for sage-grouse, and provide a vector for the
16 spread of invasive grasses?

17 A Yes.

18 Q And don't you state in your first declaration that
19 utilization of less than 50 percent by weight is compatible
20 with maintaining elements of sage-grouse habitat?

21 A Yes.

22 Q But doesn't the Hammonds' current grazing authorization
23 allow for 50 percent utilization?

24 A Yes.

25 Q And isn't it true that the Hammonds have already grazed

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1 1,200 to 1,400 more AUMs than were permitted on the Hammond
2 allotment?

3 A From what I have heard, yes.

4 MS. BROOKS: Thank you. I would like to give
5 Mr. Becker just five minutes to ask a few questions.

6 Is that okay?

7 THE COURT: No, it absolutely is not.

8 MR. BECKER: It might be three minutes.

9 THE COURT: It is not a question of time. That's not
10 the way it works. No. One counsel questions per witness.

11 MS. BROOKS: Okay. Thank you, Your Honor.

12 THE COURT: Redirect.

13 I'm sorry. Did you have any more questions,
14 Ms. Brooks?

15 MS. BROOKS: Yes, I think I do.

16 THE COURT: Make them efficient, please.

17 MS. BROOKS: I'll do my very best, Your Honor. I'm
18 sorry.

19 BY MS. BROOKS:

20 Q Mr. Obradovich, can you see this post-fire vegetation
21 mortality map from August 2006?

22 A Yes.

23 Q And does it show that all of the Mud Creek allotment
24 burned?

25 A What it shows is that there was high mortality of

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1 vegetation in the lower parts of the allotment and anywhere
2 from zero to 25 percent mortality in the upper parts of the
3 allotment. Mainly that area is covered with juniper and is
4 dense enough that the juniper has reduced the understory that
5 would carry a fire. So there are probably areas in there that
6 may not have burned totally. Then there may be areas that did
7 not burn at all. But what didn't burn is covered with juniper,
8 to the best of my knowledge.

9 Q Doesn't this also show that most of the Hardie Summer
10 allotment didn't experience very high mortality from those
11 fires?

12 A Yes. Could you scroll back up to the legend. So it looks
13 like part of it was high mortality; other parts were moderate
14 and moderate low -- or low moderate. Then the green areas were
15 possibly where it was very low or not at all.

16 MS. BROOKS: Thank you, Mr. Obradovich. I don't
17 think we have any further questions.

18 THE COURT: Redirect.

19 REDIRECT EXAMINATION

20 BY MR. GRENHAM:

21 Q Mr. Obradovich, plaintiffs discussed the SageCon maps with
22 you, Plaintiffs' Exhibit 3, and used them to assert that
23 sage-grouse are likely present in several parts of the
24 Hardie Summer allotment and other locations. Are those SageCon
25 maps a substitute for on-the-ground inspection and knowledge of

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1 the ground?

2 A Yeah, I think as I stated it earlier -- without being able
3 to track any sage-grouse through that area, the best we can do
4 is say that habitat is there, and they may use it. So we don't
5 know with certainty the exact timing. We didn't see any
6 sage-grouse while we were out there on that southern part of
7 the Hardie Summer allotment, but we didn't cover all the area.
8 So they could be there, but they may not as well.

9 Q Just to make sure we're not crossing wires on the way I
10 asked the question and you answered it, the question was: Is
11 the SageCon map a substitute for on-the-ground knowledge?

12 A It can be used that way, yes.

13 Q If your on-the-ground knowledge is that sage-grouse will
14 avoid areas with alders or juniper, and you know on a
15 site-specific level that, say, Big Fir Creek has alders or
16 juniper, would you trust your knowledge or the SageCon map?

17 A I would trust my knowledge that they wouldn't use those
18 areas.

19 Q Does the mere presence of livestock on an allotment, such
20 as Hardie Summer or Mud Creek at the same time as sage-grouse,
21 necessarily result in harm to sage-grouse?

22 A No.

23 Q Can you explain why.

24 A Just the presence of livestock doesn't mean that they may
25 have an impact on sage-grouse use of that allotment, depending

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1 on the season of abuse of the livestock as well as the season
2 when sage-grouse would be there. If they are overlapping,
3 there would be competition for that forage. But if we are
4 properly grazing that allotment, then there should be forage
5 for both livestock and sage-grouse.

6 Q Counsel discussed with you the concept of grazing can
7 spread cheatgrass. As applied to the Hardie Summer or
8 Mud Creek allotments, would you expect grazing to bring
9 cheatgrass to a place that it wouldn't otherwise get to -- to
10 the other vectors?

11 A Can you repeat that one more time?

12 Q With regard to the concept of grazing and spreading
13 cheatgrass, as applied to Hardie Summer or Mud Creek
14 allotments, would you expect grazing to move cheatgrass to
15 areas that it wouldn't otherwise get to?

16 A No, I would not. I would say it's spread more through
17 fire. It produces a great amount of seed in and of itself, and
18 that seed can be spread by wind as well and occupy areas that
19 it hasn't occupied formerly.

20 Q Counsel discussed with you allotments at times that were
21 not meeting one of the five standards of rangeland health, but
22 for causes other than grazing. If grazing is not the causal
23 factor in an allotment failing to meet the rangeland health
24 standards, does BLM policy provide for stopping that grazing
25 anyway?

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1 A As far as I know, usually there has to be a determination
2 that livestock is a causal factor in not meeting a particular
3 standard, such as riparian health. In that case we have -- and
4 I can't remember the exact amount of time to institute changes
5 to that grazing system that we determine that would allow for
6 improving the health of whatever factor we are not meeting.

7 Q I think, lastly, just back to this discussion of your
8 second declaration at paragraph 9, there was discussion of
9 taking the Court's admonition about using quotes more
10 accurately next time.

11 Other than that, is there anything more that you
12 would want to say about what you were trying to convey about
13 improper versus proper livestock grazing?

14 A I was just trying to include that quote in there so
15 that -- as a reference to the Fish and Wildlife Services 2015
16 determination that talked about their recognition that proper
17 grazing would not affect sage-grouse habitat, but improper
18 grazing would, and it also included that statement of -- the
19 one that was made reference to as far as the possibility of
20 livestock trampling nests.

21 THE COURT: You say that quote. There is no quote in
22 there. Even if there is no quotes on it, the point you make
23 says, "This runs against the grain of the finding of U.S. Fish
24 and Wildlife Service." Then you make about four or five lines
25 of text. Then later we get to this point that you've disavowed

M. Obradovich - ReX

1 about livestock can trample or disturb nests.

2 THE WITNESS: My mistake, Your Honor, was not
3 including that in quotes. I was just trying to include that as
4 part of the Fish and Wildlife Service and not just trying to
5 limit it to what they said on proper grazing.

6 THE COURT: So your testimony is that the Fish and
7 Wildlife Service believes that livestock can trample or disturb
8 nests and caused nesting females to flush from the nest,
9 revealing the eggs to nest predators, such as ravens, but,
10 frankly, you disagree with the U.S. Fish and Wildlife Service
11 statement?

12 Is that what I'm hearing from you?

13 THE WITNESS: No, that is not. I had included that
14 whole statement in there to show, one, that, yes, there was a
15 recognition of proper grazing, improper grazing, and --

16 THE COURT: Do you disagree with that statement?

17 THE WITNESS: No. I've just never observed it,
18 Your Honor, and that is what I was trying to testify to.

19 THE COURT: All right.

20 MR. GRENHAM: Nothing further.

21 THE COURT: Anything further within the scope? I
22 mean within the scope.

23 MS. BROOKS: Just one question.

24 RE-CROSS-EXAMINATION

25

1 BY MS. BROOKS:

2 Q Mr. Obradovich, you testified that wildlife don't tend to
3 use -- eat cheatgrass or other grasses once they are all dried
4 up. Do livestock eat cheatgrass once it's all dried up?

5 A To my knowledge, no.

6 MS. BROOKS: Thank you.

7 THE COURT: Thank you, Mr. Obradovich. You may step
8 down, sir.

9 All right. We still need to hear from Ms. Davies and
10 Dr. Stringham.

11 Are you all available to continue with that testimony
12 on Tuesday, July 2nd, next Tuesday, at 2:00 p.m.?

13 MR. ODELL: I believe so, Your Honor. May I have one
14 second to confer with the experts?

15 THE COURT: Well, Mary, you scheduled something for
16 me at 1:30.

17 THE CLERK: Yes.

18 MR. ODELL: Yes, Your Honor. That's acceptable.

19 THE COURT: Plaintiffs?

20 MR. BECKER: 2:00 p.m. on Tuesday, July 2nd, would be
21 fine.

22 THE COURT: All right. Then we will be in recess in
23 this matter until Tuesday at 2:00 p.m. on July 2nd.

24 All right. Thank you.

25 MR. ODELL: Thank you.

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MR. BECKER: Thank you.

(Court adjourned.)

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I certify, by signing below, that the foregoing is a correct transcript of the record of proceedings in the above-entitled cause. A transcript without an original signature, conformed signature, or digitally signed signature is not certified.

/s/ Dennis W. Apodaca
DENNIS W. APODACA, RDR, RMR, FCRR, CRR
Official Court Reporter

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