

EVIDENTIARY HEARING
BEFORE THE
CALIFORNIA ENERGY RESOURCES CONSERVATION
AND DEVELOPMENT COMMISSION

In the Matter of:)

Application for Certification)
for the Calico Solar Project)
(formerly SES Solar 1))
-----)

Docket No. 08-AFC-13

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08-AFC-13

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CALIFORNIA ENERGY COMMISSION
1516 NINTH STREET
SACRAMENTO, CALIFORNIA

WEDNESDAY, AUGUST 18, 2010

9:06 A.M.

Reported by:
John Cota

APPEARANCES

HEARING OFFICER

Paul Kramer

COMMITTEE MEMBERS

Anthony Eggert, Presiding Member

Jeffrey Byron, Associate Member

Joe Loyer, Advisor to Commissioner Eggert

Kristy Chew, Advisor to Commissioner Byron

STAFF

Caryn Holmes, Staff Counsel

Stephen Adams, Staff Counsel

Jared Babula, Staff Counsel

Christopher Meyer, CEC Project Manager

APPLICANT

Ella Foley Gannon, Esq., Bingham, McCutchen, LLP

Allan Thompson, Esq.

Felicia Bellow, Tessera Solar

APPEARANCES (Continued)

INTERVENORS

Bart Brizzee, Deputy County Counsel, San Bernardino County
Loulana Miles, Esq., Adams Broadwell Joseph & Cardozo
Joshua Basofin, Defenders of Wildlife
Laura Cunningham, Basin and Range Watch
Patrick Jackson
Travis Ritchie, Sierra Club
Wayne Weierbach, Newberry Community Service District

ALSO PRESENT

Steven Lamb, Burlington Northern Santa Fe (BNSF)
Cynthia Burch, Burlington Northern Santa Fe (BNSF)

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PROCEEDINGS

PRESIDING MEMBER EGGERT: Good morning, everyone. My name is Anthony Eggert, and I'm the presiding commissioner for the Calico Solar Project. I want to introduce a number of folks up here with me.

To my right is Commissioner Byron, who is the associate member on this case. To his left and my right is Paul Kramer, who is the hearing officer who's going to be running today's proceeding. And to my left here is Mr. Joe Loyer, who is assisting me as an advisor on this case.

We have a lot of material to get through today, so I won't spend too long on opening comments, but I do just want to thank everybody for coming here and for your participation. We are interested in hearing all of the evidence and having a good discussion about the various aspects of this case, including its impacts and the mitigation of those impacts for the purposes of considering it for a permit.

Let's see. For those of you who are with us in Barstow, several weeks ago we were able to cover a fair amount of ground, but also did a number of issues that we were unable to close out at that time. So our hope is that today we can proceed and try to get through as much of the material that weren't able to because of some of

1 the lack of information, documents, time for review during
2 the last three days of hearings.

3 I'll ask Commissioner Byron, do you have any
4 opening comments here?

5 ASSOCIATE MEMBER BYRON: I'll add my thanks for
6 you all being here this morning. Our space is small, and
7 we apologize. We've got competing interests going on here
8 at the commission here this morning.

9 But, Commissioner, we've got a lot of work to do
10 today. I'm very hopeful that we'll get through it; but I
11 think it's also worth noting, these are extraordinarily
12 difficult cases for this commission. They are very
13 challenging for us with regard to the staff resources
14 required and the issues that we're dealing with, but we
15 are giving them the utmost attention.

16 Thank you all for being here.

17 We'll see what we can do today, Commissioner.

18 PRESIDING MEMBER EGGERT: All right. Thank you.

19 I'm going to go ahead and do introductions.

20 And start out with the applicant.

21 MS. FOLEY GANNON: Good morning, Commissioners.
22 It's Ella Foley Gannon, counsel to the applicant. And to
23 my right is Allan Thompson, co-counsel to the applicant.
24 To my left is Felicia Bellows from the applicant
25 Tessera Solar.

1 PRESIDING MEMBER EGGERT: Thank you.

2 CEC staff?

3 MR. ADAMS: Steve Adams, one of several staff
4 counsels who will be representing the staff today. To my
5 left is Caryn Holmes, another counsel, and Jeremy across
6 the -- excuse me, Jared, across the way, and Christopher
7 Meyer is our project manager to my right.

8 PRESIDING MEMBER EGGERT: So we have good legal
9 representation for the staff.

10 And for the intervenors? CURE?

11 MS. MILES: Loulena Miles on behalf of CURE.

12 PRESIDING MEMBER EGGERT: Defenders of Wildlife?

13 MR. BASOFIN: Good morning. Joshua Basofin on
14 behalf of Defenders of Wildlife.

15 PRESIDING MEMBER EGGERT: Society for the
16 Conservation of the Big Horn Sheep?

17 No?

18 Basin and Range Watch.

19 MS. CUNNINGHAM: Hello. Laura Cunningham, Basin
20 and Range Watch.

21 PRESIDING MEMBER EGGERT: Good morning, Laura.
22 Patrick Jackson.

23 MR. JACKSON: This is Patrick Jackson, I'm here.

24 PRESIDING MEMBER EGGERT: Good morning.

25 Sierra Club.

1 MR. RITCHIE: This is Travis Ritchie with
2 Sierra Club.

3 PRESIDING MEMBER EGGERT: Okay.
4 Newberry Community Service District?

5 MR. WEIERBACH: Good morning. This is
6 Wayne Weierbach.

7 PRESIDING MEMBER EGGERT: Good morning.

8 Also want to check to see if we have any other
9 state agency representatives, either here in the room or
10 on the phone. Non-CEC.

11 MS. JONES: Becky Jones, Fish & Game.

12 PRESIDING MEMBER EGGERT: Good morning. Thanks
13 for joining us.

14 MS. JONES: Good morning.

15 PRESIDING MEMBER EGGERT: Anybody --

16 MS. MOORE: Tanya Moore, Fish & Game.

17 PRESIDING MEMBER EGGERT: I'm sorry, say that
18 again?

19 MS. MOORE: Tanya Moore.

20 PRESIDING MEMBER EGGERT: Anybody from BLM?
21 Any of the other federal agencies?

22 MR. STOBAUGH: This is Jim Stobaugh with the
23 Bureau of Land Management on the telephone.

24 PRESIDING MEMBER EGGERT: Actually, could you
25 speak into the microphone? This is all on the record.

1 And then if you could, please, spell your last name, just
2 for the record.

3 DR. HUNTER: Dr. Charlotte Hunter, H-u-n-t-e-r,
4 BLM, cultural resources.

5 PRESIDING MEMBER EGGERT: Thank you.

6 MR. BRIZZEE: Bart Brizzee, calling from the
7 County of San Bernardino, one of the intervenors.

8 PRESIDING MEMBER EGGERT: Oh, I'm sorry.
9 Apologies. Thanks for chiming in.

10 MR. BRIZZEE: You bet.

11 PRESIDING MEMBER EGGERT: And then BNSF is
12 there --

13 MR. LAMB: Yes, Steve Lamb, and Cynthia Burch for
14 BNSF.

15 PRESIDING MEMBER EGGERT: Okay. Anybody else I
16 missed?

17 MR. BRIERTY: Peter Brierty with San Bernardino
18 County Fire Department calling from San Bernardino.

19 PRESIDING MEMBER EGGERT: Good morning,
20 Mr. Brierty.

21 MR. BRIERTY: Good morning.

22 PRESIDING MEMBER EGGERT: Okay. I'll now turn it
23 over to Mr. Kramer.

24 HEARING OFFICER KRAMER: Thank you.

25 And good morning, everyone. For those of you in

1 the room, you just need to press the button in the middle,
2 bottom of the phone, or microphone rather, to -- and the
3 microphone will light up, and that means you're live.

4 On the telephone, if you could please mute
5 yourself if you've got background noise in your area. We
6 can mute you here, but if we do, then I don't think you
7 can un-mute yourself, and we may have trouble recognizing
8 that you want to speak. So we prefer that you police your
9 own audio; but if you don't, we will, just to avoid noise.

10 Is everybody on the telephone hearing us pretty
11 well? If one or two could just acknowledge that.

12 MR. STOBAUGH: Yes. This is Jim Stobaugh. Yes,
13 I can.

14 HEARING OFFICER KRAMER: Okay. Great. Sounds
15 like we're finally getting the bugs out of the system in
16 our room here.

17 Earlier in the week I circulated an updated
18 matrix for today showing the various topics. You'll see a
19 lot of topics on there. We're hopeful that many of them
20 were resolved during the workshop that was held between
21 the last hearings and today, but we still need to hear, at
22 least briefly, about the nature of that resolution and, of
23 course, we may have a few questions about that.

24 And the order basically begins with the visual
25 issues. And that was at the request of the railroad for

1 the convenience of their witnesses. And then ends with
2 cultural resources. And that was at the request of, I
3 believe some of the people from BLM were only available
4 this afternoon and wanted to participate in that
5 discussion.

6 So do we have any -- any procedural or other
7 issues the parties wish for us to address before we begin
8 with our topics? There was the motion from the Sierra
9 Club and some of the other intervenors to have additional
10 time because of the delay in the probation of the
11 transcript of the August 5th biological hearings.

12 And what we are hoping, that it will be
13 unnecessary, but we have set aside time in our schedules
14 next Monday morning if we need to carry some topics over
15 because of that or other reasons. And whether we need to
16 do so is decision we're hoping to make by noon today,
17 because the location which will be a little more
18 comfortable, as our Hearing Room A across the atrium, but
19 that has been scheduled for an ADA update of its -- I
20 guess some of its facilities. I'm not sure what all is
21 involved in that, but we need to be able to give some
22 notice to put off that work on the room if we're going to
23 use it. So what we want to do is decide before noon.

24 And we're planning on breaking right about noon
25 because we -- there are some other things that some of us

1 on the committee had to schedule, and we've done that
2 during the noon hour.

3 And for your convenience we are celebrating the
4 dog days of summer here at the commission, so we have --
5 we'll have hot dogs outside and nachos available to
6 support one of our charitable efforts.

7 ASSOCIATE MEMBER BYRON: Yeah, the heart
8 association.

9 HEARING OFFICER KRAMER: Well, we can do irony
10 like nobody else here.

11 So does that address to a degree, the motion,
12 Mr. Ritchie?

13 MR. RITCHIE: I believe it addresses -- this is
14 Travis Ritchie with Sierra Club. It addresses it,
15 Mr. Kramer, but I don't believe it resolves the pertinent
16 issues that we were bringing up with that motion.

17 One of the other problems is, and when we filed
18 this motion this problem hadn't existed yet, but the staff
19 assessment of the desert tortoise -- or the translocation
20 plan hadn't been released yet, it was released last night.
21 Again, all of these time frames for the ability of Sierra
22 Club and other intervenors to review these complicated
23 documents, have our experts review them, comment on them
24 and provide meaningful comment have almost been eliminated
25 with the speed of this proceeding.

1 So I do appreciate the opportunity to address
2 this potentially on Monday, but again, I think that it's
3 more proper to push this 14 days out, which is, I believe,
4 what the rules call for. I forget the exact -- I mean, I
5 know everyone is on a tight schedule with this, but as
6 these things are coming --

7 MS. MILES: The Commission Rule 1747 regarding
8 the final staff assessment, and I believe there was a
9 staff assessment supplement that was published at
10 5:00 p.m. yesterday.

11 MR. RITCHIE: And under that rule, it does
12 require at least 14 days before evidentiary hearings on
13 the matter. We obviously don't have that; we've barely
14 had 14 hours.

15 And so Sierra Club just strenuously objects to
16 proceeding with evidentiary hearings on biological
17 resources. I don't think the record can possibly be
18 completed based on the time that parties have had to
19 review the documents that keep coming and that we are
20 supposed to be able to analyze with our own experts and
21 just simply can't do.

22 HEARING OFFICER KRAMER: Well, we certainly
23 understand, because we have about the same time that you
24 do to review some of these documents. I think it
25 misinterprets though our regulatory requirements to

1 characterize everything the staff files as, in effect, a
2 new staff assessment that resets that clock in the
3 regulation that you're referring to.

4 It is additional testimony, but it's really --
5 it's not the final word. We're not here to adjudicate
6 whether the staff performed an adequate analysis of the
7 project, we're here to analyze the environmental impacts
8 of the project and its compliance with LORS, and staff's
9 work is simply one element in that analysis. It's an
10 important element, many people choose to rely on that as
11 the basis for their own work; but in reality, all of the
12 parties are obligated to come to the hearings ready to
13 talk about the merits of the project on the basis of their
14 own work and research as well as their critique of what
15 others have done.

16 So we will -- we're hoping to get to biology and
17 perhaps even finish it before the noon hour, but we can
18 come back to this and assess where we are closer to noon.

19 MR. RITCHIE: Mr. Kramer, I certainly understand
20 the constraints that are put on staff and, frankly, the
21 applicant and everybody in this proceeding, and I'm not
22 saying that anybody else is being treated differently, but
23 I'm gravely concerned that the commission will not have an
24 adequate record upon which to base its decision. And that
25 is what our objection goes to, and that's what I would

1 like to know for the record.

2 The time that's happening here and the rushed
3 proceeding that's happening here, there simply will not be
4 a record upon which to make an important decision.

5 HEARING OFFICER KRAMER: Okay. Well, let's
6 revisit that as we get close to noon.

7 Any other issues we need to address before we get
8 started?

9 MR. BABULA: Yeah, I'd like to -- over here.

10 HEARING OFFICER KRAMER: Introduce yourself,
11 please.

12 MR. BABULA: This is Jared Babula, staff counsel,
13 handling the cultural aspect of this case.

14 My understanding then is cultural will be after
15 lunch. And we are trying to -- we'd like to set up a
16 workshop. I talked to the applicant briefly before this
17 session to maybe make lunch a little longer so the
18 applicant, staff, and CURE could meet and continue to try
19 to resolve our differences on the conditions of
20 certification. I think we could get some more movement
21 and knock off a few of those so that when we come back for
22 the hearing, we'll have fewer issues to go over.

23 HEARING OFFICER KRAMER: How long do you think
24 that would take?

25 MR. BABULA: We -- I do have a copy of our

1 response to their comments, so we can start moving forward
2 on that right now.

3 What do you want; like an hour?

4 MS. FOLEY GANNON: I think if we had an hour for
5 lunch and for discussion with it, that would be
6 sufficient, particularly as there's nachos and hot dogs
7 right here.

8 HEARING OFFICER KRAMER: We're going to have to
9 stagger or have a priority line for us at the hot dog
10 stand.

11 Okay. Well, I think we're certainly open to
12 having the parties work things out. That's always
13 encouraging. So let's see. If we're about to finish up
14 biology, but we haven't quite, I think we would want to
15 finish that up before lunch, and then maybe during the
16 lunch hour, you can -- that would work.

17 MR. BABULA: We just want to leave the system on
18 because I believe CURE's expert will be calling in by
19 phone; so as long as we can be in here and --

20 HEARING OFFICER KRAMER: Sure. Yeah, we would be
21 leaving the lines open all day.

22 MR. BABULA: Okay. All right.

23 HEARING OFFICER KRAMER: Okay. Thank you.

24 MS. HOLMES: I believe there's an outstanding
25 motion to strike by Patrick Jackson -- Johnson.

1 MR. JACKSON: Jackson.

2 HEARING OFFICER KRAMER: And that relates to --

3 MS. HOLMES: That relates to one of the
4 intervenor's exhibit. Staff doesn't have a position on
5 this motion, but I want to make sure that we don't
6 overlook --

7 HEARING OFFICER KRAMER: Right. No, I was
8 planning on discussing Mr. Jackson's motion to strike at
9 the time we get to that topic, which would be -- I think
10 it would be the land use, traffic, and transportation
11 combo on the -- not a parcel access -- not a part parcel
12 access issue. So that will come up in a few minutes.

13 Anything else?

14 MR. LAMB: Yes, Hearing Officer Kramer. This is
15 Steve Lamb for BNSF.

16 Just to clarify, and I sent some e-mails about
17 this yesterday, you've got on the schedule glare and glint
18 only changes to VIS 3. Really the concern is Trans 7 for
19 BNSF and the access issues relate to Trans 1 through 6.
20 And what we'd ask is that the applicant be prepared to
21 present whatever evidence or testimony it has as a
22 proponent of these, and that the staff present Marie
23 McLean and James Jewell so they can be available for
24 cross-examination.

25 And then we have four witnesses, Edward Phillips,

1 Joseph Schnell, Dennis Skeels, and David Krauss regarding
2 those issues. And ask if their testimony was presented
3 yesterday with some exhibits. I wanted to make sure that
4 it's going to be available so when you call up that
5 exhibit, it can be shown on the board.

6 HEARING OFFICER KRAMER: Do you have it available
7 electronically, or are you expecting me to do that for
8 you?

9 MR. LAMB: Well, that's what I'd asked. I sent
10 it. I mean, I have it on my computer, so we have it
11 electronically, but --

12 HEARING OFFICER KRAMER: Are you logged in to
13 WebEx?

14 MR. LAMB: I am not.

15 HEARING OFFICER KRAMER: If you could do that.
16 Do you know how to do that?

17 MR. LAMB: No.

18 HEARING OFFICER KRAMER: And you could present it
19 from your -- or maybe the applicant -- the applicant is
20 set up to do that. So maybe if you give her the files on
21 a thumb drive, then she could project them for you.

22 Okay. Mr. Lamb, which -- so you said Visual 7?

23 MR. LAMB: Trans 7 and Trans 1 through 6.

24 HEARING OFFICER KRAMER: Okay. Well, we still
25 have traffic and transportation to do in its entirety

1 today, so we'll get to it in that third topic then.

2 MR. ADAMS: Hearing Officer Kramer, I'd suggest
3 that we consider moving Trans 7, which is the issue having
4 to do with the railroad signal and its visibility in light
5 of any glare off the SunCatcher units, that we move that
6 to the glare section at the top of the agenda because
7 Clifford --

8 HEARING OFFICER KRAMER: Done.

9 MR. ADAMS: Okay.

10 HEARING OFFICER KRAMER: Okay. So let's then
11 begin with visual resources and traffic and
12 transportation. We did the bulk of visual last time, but
13 we still have the glint and glare issues, and we still
14 have the open question of the changes to condition
15 Visual 3.

16 So did the applicant have any additional evidence
17 to present on the glint and glare issues, or would you
18 prefer the staff begin?

19 MS. FOLEY GANNON: We have no more live
20 testimony. I'm just trying to get the exhibit numbers.
21 I'm sorry, it will take me a moment. But staff can
22 present their live testimony.

23 We did present a glint and glare study which was
24 docketed and submitted and has been marked as an exhibit.
25 But we don't have -- (telephone interruption) -- and this

1 would be exhibit -- it's 105. We docketed since our last
2 hearing, but we have preliminarily marked it as
3 Exhibit 105. It's a glint and -- "IVS Glint and Glare
4 Report," is the title of it.

5 (Applicant's Exhibit 105 was
6 marked for identification.)

7 HEARING OFFICER KRAMER: Okay. Well then staff,
8 did you wish to present any testimony or simply make your
9 witnesses available for cross-examination?

10 MR. ADAMS: Well, we have several new witnesses
11 on this, so we need to have them sworn in and sponsor the
12 testimony. Clifford Ho, are you on the phone?

13 Alan Lindsley, are you there?

14 MR. LINDSLEY: Yes, I am.

15 MR. ADAMS: And Bill Kanemoto?

16 MR. KANEMOTO: Yes, I'm here.

17 MR. ADAMS: Okay. Well, Clifford Ho is not on at
18 this point. He thought he might be a little late, but
19 thought he would be on by now. Should we proceed without
20 him?

21 HEARING OFFICER KRAMER: Do you think you can?

22 MR. ADAMS: I think we can and then add him
23 later.

24 HEARING OFFICER KRAMER: Okay. Jesus Cardenas,
25 if you're listening, I suspect you're not, but you've been

1 muted.

2 He just hung up.

3 MR. ADAMS: So Mr. Kanemoto's been sworn in
4 previously. Ms. McLean and Mr. Lindsley need to be sworn.

5 HEARING OFFICER KRAMER: Is it Lindsley or
6 Lindsley?

7 MR. LINDSLEY: Lindsley. It's L-i-n-d-s-l-e-y.

8 HEARING OFFICER KRAMER: And how do you spell
9 your first name?

10 MR. LINDSLEY: Alan, A-l-a-n.

11 HEARING OFFICER KRAMER: I'm sorry, a cough
12 covered that up.

13 MR. LINDSLEY: A-l-a-n.

14 HEARING OFFICER KRAMER: Okay. And the other
15 witness?

16 MS. McLEAN: Marie McLean.

17 HEARING OFFICER KRAMER: Could you spell your
18 last name, please?

19 MS. McLEAN: M-c, capital L-e-a-n.

20 HEARING OFFICER KRAMER: Okay. If you both of
21 you would raise your right hand.
22 Whereupon,

23 MARIE McLEAN and ALAN LINDSLEY
24 were called as witnesses herein and, having been first
25 duly sworn, were examined and testified as follows:

1 HEARING OFFICER KRAMER: Okay. Thank you.
2 They're sworn. Go ahead.

3 DIRECT EXAMINATION

4 MR. ADAMS: Mr. Lindsley, did you with Dr. Ho
5 prepare the testimony in Appendix A of the traffic and
6 transportation study in the part two of the supplemental
7 staff assessment?

8 MR. LINDSLEY: Yes, we did.

9 MR. ADAMS: And was the information in that study
10 true and complete to your best of your knowledge?

11 MR. LINDSLEY: Yes, it is.

12 MR. ADAMS: Was your -- were your qualifications
13 included in that?

14 MR. LINDSLEY: No, they were not.

15 MR. ADAMS: They were omitted.

16 If the -- could you very briefly explain your
17 position and expertise in this field?

18 MR. LINDSLEY: You bet. I was a practicing
19 architect in commercial architecture for 18 years. For
20 the last 16 years I've had my own architectural lighting
21 design business performing a variety of project work that
22 is relevant to this, including dark sky compliance
23 facilities, civic and commercial projects of a variety of
24 types. Everything from industrial to religious to
25 residential.

1 And my educational background is a bachelor's of
2 environmental design from the University of Colorado,
3 1977.

4 MR. ADAMS: All right. I would ask if the
5 parties will stipulate to Mr. Lindsley's qualifications in
6 this area.

7 MS. FOLEY GANNON: The applicant is willing to
8 stipulate.

9 MS. MILES: CURE will stipulate.

10 HEARING OFFICER KRAMER: Is anybody not willing
11 to stipulate?

12 MR. LAMB: We will stipulate, this is BNSF, to
13 his qualifications regarding architecture. We don't see
14 any qualifications related to this particular study.

15 MR. ADAMS: Can you provide experience and
16 education relating to glare issues and glare impacts on
17 vision?

18 MR. LINDSLEY: You bet. The nighttime intrusive
19 light analysis is something that we do as part of our
20 normal business, and that is everything from trip and fall
21 accident evaluation where we are measuring for plaintiff
22 and defendant, and/or defendant to establish the amount of
23 light available and how that meets with national and
24 international standards.

25 With the dark sky intrusive light analysis, we

1 have been involved in developing a number of model light
2 ordinances pursuant to the guidelines of the dark sky
3 organization, which deals with nighttime intrusive light.

4 In the case of daytime intrusive light, the only
5 difference is in the order of magnitude. The methods in
6 which it impacts the human eye and the responses are very
7 similar; it's just an order of magnitude that the sun's a
8 little brighter than a hundred-watt lamp.

9 MR. ADAMS: Okay. I would again ask for BNSF's
10 stipulation as to his qualifications.

11 MR. LAMB: Again, this study deals with
12 mitigation and it deals with LED light and it deals with
13 shielding of specific signals for rail, and I don't see
14 any qualifications in that regard.

15 MR. LINDSLEY: Oh, I can provide that as well.

16 As a commercial lighting designer, I have worked
17 for probably eight years now in developing custom LED
18 light fixtures. 18 months ago I started my own
19 manufacturing business developing sustainable LED light
20 fixtures, and I am the chief design officer of that
21 company and intimately involved in developing four-color
22 on a chip LED light emitters that are used in
23 architectural light design and other applications.

24 MR. ADAMS: Thank you, Mr. Lindsley.

25 I would ask for a ruling from the committee at

1 this point as to qualifications.

2 HEARING OFFICER KRAMER: In our opinion the
3 witness is qualified, and we will accept his testimony.

4 MR. ADAMS: Dr. Ho, are you on the phone yet?

5 DR. HO: Yes, I am.

6 MR. ADAMS: Oh, excellent.

7 Could you state your name and spell your name,
8 please?

9 HEARING OFFICER KRAMER: Well, first, maybe we
10 should swear him in.

11 MR. ADAMS: Oh, that would be a good idea.

12 HEARING OFFICER KRAMER: Were you here to be
13 sworn in, Dr. Ho?

14 DR. HO: I was not previously.

15 HEARING OFFICER KRAMER: Okay. First, then
16 please spell your first and last names for us.

17 DR. HO: Clifford, C-l-i-f-f-o-r-d. Last name is
18 Ho, spelled H-o.

19 HEARING OFFICER KRAMER: Okay. Thank you.

20 Please raise your right hand.

21 Whereupon,

22 CLIFFORD HO
23 was called as a witness herein and, having been first duly
24 sworn, was examined and testified as follows:

25 HEARING OFFICER KRAMER: Go ahead.

1 MR. ADAMS: Dr. Ho, did you with Dr. Lindsley
2 prepare Appendix A of the traffic and transportation
3 section of the part two supplemental staff analysis?

4 DR. HO: Yes, I did.

5 MR. ADAMS: And are the facts stated in there
6 true and correct to the best of your knowledge?

7 DR. HO: Yes.

8 MR. ADAMS: Your qualifications were also omitted
9 from the supplemental staff assessment filed on the 9th, I
10 believe; is that correct?

11 DR. HO: I don't know for sure.

12 MR. ADAMS: I think they were.

13 In light of that, can you take less than a minute
14 and explain your qualifications and expertise?

15 DR. HO: My background is mechanical engineering.
16 I have a Ph.D. in mechanical engineering from the
17 University of California at Berkeley. For the past few
18 years I've been working in the area of concentrating solar
19 power and in particular looking at optical performance and
20 assessment, and I've written several papers regarding the
21 potential impacts of glint or glare from CSP systems.

22 MR. ADAMS: Thank you.

23 I would ask if the parties would stipulate to
24 Dr. Ho's qualifications.

25 HEARING OFFICER KRAMER: Or inversely, does

1 anybody not stipulate?

2 Seeing none, go ahead. We have a stipulation.

3 MR. ADAMS: I would like to mark staff
4 assessment -- the supplemental staff assessment part two,
5 which was docketed on August 9th, as Exhibit 308.

6 In addition -- well, let's stick with the glare
7 study for a moment.

8 Dr. Ho, Mr. Lindsley, could you very briefly
9 summarize the content of Appendix A of your glare study?

10 HEARING OFFICER KRAMER: Let me just break in to
11 say that I already had proposed revisions to Noise 1 as
12 308, so let's make this 309.

13 MR. ADAMS: Sorry about that. Thanks.

14 (Staff's Exhibit 309 was
15 marked for identification.)

16 MR. ADAMS: So, Mr. Lindsley, are you prepared to
17 briefly summarize the content of the glare study?

18 MR. LINDSLEY: Yes, I am.

19 The SunCatcher is a parabolic dish that is
20 composed of multiple mirror segments that tilt and rotate
21 to track the sun. The SunCatcher mirrors focus the
22 reflected sunlight on a single point approximately 22 feet
23 from the dish surface. As a result of the intensity of
24 this reflected solar energy, the aperture and/or the face
25 of the power conversion unit can be observed from some

1 viewpoints as a very bright spot in front of the dish.

2 Additionally, when the power conversion unit is positioned
3 between an observer and the dish, a halo of stray light is
4 visible around the PCU.

5 When the dish is moved off axis from the sun or
6 when any of the facets are misaligned, an image of the sun
7 and the PCU can be visible in the dish reflection
8 simultaneously.

9 The best practices for reducing the potential
10 impacts of intrusive light is to actually prevent the
11 intrusive light from occurring, and then when it does
12 occur, to apply physical setbacks to protect the
13 observers. In this case that would be the maintenance
14 workers, that could be people on the highway, train
15 engineers, et cetera.

16 To prevent the intrusive light from occurring,
17 the recommended procedures are to move the SunCatchers
18 into position before sunrise and after sunset, modifying
19 the off-axis position so that the sun reflection is no
20 longer visible to an observer and to implement a
21 monitoring plan, monitoring plan that makes use of video
22 surveillance trucks to identify and document any intrusive
23 light conditions that are then reported to the proper
24 authorities.

25 Once it is identified that the intrusive light

1 exists, then the minimum distance from any SunCatcher
2 reflector to a public right of way should be a minimum of
3 223 feet, as calculated by Dr. Ho, to reduce the
4 possibility of photokeratitis or temporary flash
5 blindness.

6 Beyond that distance the remaining intrusive
7 light is reduced to veiling reflections and distracting
8 intrusive light. This amount of intrusive light is found
9 in the normal daytime visual environment and has less than
10 significant impact to the typical observer.

11 MR. ADAMS: Dr. Ho, could I ask you to elaborate
12 for just a minute on the setback of 223 feet and the
13 residual glare beyond that distance and its potential
14 significance in your view?

15 DR. HO: Sure. The analysis I performed to
16 evaluate what distances could cause temporary flash
17 blindness or an after image, that occurs when you look at
18 a bright source of light and then you look away and you
19 have that temporarily persistent after image, similar to
20 if you were to look at a flashbulb or see a reflection of
21 the sun and were to have that persistent after image for a
22 short while afterward.

23 If I use that as my metric -- there is, by the
24 way, another metric which would cause retinal burn or
25 permanent eye damage, but in all cases, unless you're

1 right within the focal length of the SunCatcher, that
2 would not be a possibility. So I focused on the temporary
3 after image, or temporary flash blindness. This is the
4 metric. And if you go through the calculations which
5 requires parameters associated with the SunCatcher itself,
6 the focal length, the size of the reflectivity and
7 parameters associated with the environment such as a
8 direct normal insulation, you can calculate a distance
9 beyond which the potential for this temporary flash
10 blindness would be minimized. And that resulted in a
11 value of 223 feet. So beyond 223 feet, the potential for
12 this temporary after image is small.

13 And with regard to the other issues of veiling or
14 distraction-type glare, I think Alan can probably speak to
15 that better.

16 MR. ADAMS: Okay. Thank you.

17 And I'd like to shift gears very quickly to ask
18 Ms. McLean and Mr. Lindsley if they prepared the traffic
19 and transportation section of part two of the supplemental
20 staff assessment.

21 MR. LINDSLEY: Yes, we did.

22 MS. McLEAN: Yes. Yes.

23 MR. ADAMS: Are the facts in that true and
24 correct to the best of your knowledge?

25 MS. McLEAN: Yes.

1 MR. LINDSLEY: Yes, they are true and correct.

2 MS. McLEAN: Yes, they're correct to the best of
3 my knowledge.

4 MR. ADAMS: We would make the witnesses
5 available -- oh, you wanted to -- is there another
6 witness?

7 MS. HOLMES: At some point we need to ask the
8 follow-up question with respect to VIS 3. We could do
9 that now and get it over with and I think release from
10 Kanemoto or we can wait and do it at the end of the
11 traffic discussion.

12 HEARING OFFICER KRAMER: Why not do it now?

13 MS. HOLMES: Mr. Kanemoto, are you on the line?

14 MR. KANEMOTO: Yes.

15 DIRECT EXAMINATION

16 MS. HOLMES: And did you hear the testimony
17 earlier this morning regarding the residual effect beyond
18 the 223 foot setback?

19 MR. KANEMOTO: Yes, I did.

20 MS. HOLMES: And with that testimony in mind
21 would you agree that VIS 3 as modified to reflect the 223
22 foot setback is sufficient to prevent any significant
23 adverse impacts?

24 MR. KANEMOTO: Yes, we would. We've -- I've
25 discussed this at length with Mr. Lindsley and we

1 concluded that would be acceptable.

2 MS. HOLMES: Thank you.

3 Those are our questions of Mr. Kanemoto, and he
4 would be available for cross-examination if anybody has
5 any questions as well as the other witnesses.

6 HEARING OFFICER KRAMER: I have a question about
7 that. The original VIS 3 says 360 feet. So now you're
8 proposing to amend that to be 223 feet?

9 MS. HOLMES: 223 feet which is consistent with
10 the testimony contained in Appendix A. If you're
11 recollect at the last hearing, we said that that number
12 was subject to change based on publication of the glint
13 and glare report. And now that we've had the opportunity
14 to look at it, we think that makes sense to make the two
15 staff positions consistent and to have the 223 foot
16 setback reflected in VIS 3.

17 HEARING OFFICER KRAMER: Okay. Thank you.

18 Any questions of these witnesses by the
19 applicant?

20 MS. FOLEY GANNON: No questions.

21 HEARING OFFICER KRAMER: Any other party?

22 MR. LAMB: BNSF. Thank you. Steve Lamb.

23 CROSS-EXAMINATION

24 MR. LAMB: Mr. Lindsley, you're the person that
25 basically did Appendix A? This glare and glint study,

1 right?

2 MR. LINDSLEY: Right, that's correct.

3 MR. LAMB: And you would agree that that was done
4 because staff determined that applicant had not prepared a
5 sufficient glare and glint study, correct?

6 MR. LINDSLEY: That is correct.

7 MR. LAMB: Now, the glare and glint study that
8 you did was not specifically done in relation to rail
9 traffic, trains, correct?

10 MR. LINDSLEY: That is correct.

11 MR. LAMB: In fact it was originally done for
12 highway traffic along route 40, Highway 40.

13 MR. LINDSLEY: Yes.

14 MR. LAMB: Okay. Now, the study that was done
15 and the calculations done by Dr. Ho, those relate to a
16 single SunCatcher, correct?

17 MR. LINDSLEY: Yes, they do.

18 MR. LAMB: And no study was done to determine,
19 observe, calculate, and analyze the effect of multiple
20 SunCatchers arrayed in a series, correct?

21 MR. LINDSLEY: That is correct.

22 MR. LAMB: In particular, thousands of
23 SunCatchers arrayed in a series.

24 MR. LINDSLEY: That is correct.

25 MR. LAMB: And you have general experience and

1 expertise regarding light, right, sir?

2 MR. LINDSLEY: That is correct.

3 MR. LAMB: And you would agree that as a general
4 principle, when you add one light source to another light
5 source that increases the magnitude of the effect of the
6 light on the recipient, correct?

7 MR. LINDSLEY: That is correct.

8 MR. LAMB: And no study was done to measure that,
9 right?

10 MR. LINDSLEY: No, it was not in our scope of
11 work.

12 MR. LAMB: Not in your scope of work.

13 And just, I guess from the preliminary matter,
14 then you would agree that the further study needs to be
15 done, correct?

16 MR. LINDSLEY: Correct.

17 MR. LAMB: Okay. And that further study would be
18 rail specific, correct?

19 MR. LINDSLEY: That be most useful, yes.

20 MR. LAMB: And would you agree then, sir, that
21 without that particular study, you can not determine as
22 far as rail operators, engineers, what would be safe and
23 what wouldn't be safe, correct?

24 MR. LINDSLEY: That is correct.

25 MR. LAMB: Now, you had mentioned a monitoring

1 plan, sir.

2 MR. LINDSLEY: Yes.

3 MR. LAMB: On trucks, did I get that correct?

4 MR. LINDSLEY: Yes.

5 MR. LAMB: How many trucks?

6 MR. LINDSLEY: That's not been specified.

7 MR. LAMB: What type of monitoring equipment?

8 MR. LINDSLEY: That level of detail is beyond my
9 area of expertise.

10 MR. LAMB: Sir, are you aware of any scientific
11 studies that have assessed, evaluated, or analyzed the
12 effect of glare and glint through video surveillance?

13 MR. LINDSLEY: No, I'm not familiar with that.

14 MR. LAMB: Okay. But that's what you're
15 proposing should happen here, right?

16 MR. LINDSLEY: Yes.

17 MR. LAMB: Okay. Now, you then say reported to
18 the proper authorities. Who would that be, Mr. Lindsley?

19 MR. LINDSLEY: That's detailed in Appendix A. If
20 you give me a moment I can quote from that report.

21 MR. LAMB: Sure.

22 MR. LINDSLEY: Okay. Under recommended
23 measures --

24 MR. LAMB: Yes, sir.

25 MR. LINDSLEY: -- item number one --

1 MR. LAMB: Can you tell me what page you're on,
2 sir?

3 MR. LINDSLEY: Page 11. That's of Traffic and
4 Trans Appendix A.

5 MR. LAMB: Yes, sir. Okay.

6 MR. LINDSLEY: Published August 2010. The
7 subsection D --

8 MR. LAMB: Yes, sir.

9 MR. LINDSLEY: -- the second point down,
10 "Procedures that allow motorists and train operators to
11 report to the project owner as well as to Cal Trans CHP
12 and the County of San Bernardino in the case of
13 complaints."

14 MR. LAMB: Okay. So that doesn't address rail
15 issues at all then, right?

16 MR. LINDSLEY: It says that the procedures
17 developed by the applicant -- I'm going to abbreviate --
18 shall be developed in consultation with BNSF Railway,
19 Cal Trans District 8 Office, California Highway Patrol,
20 and the County of San Bernardino.

21 MR. LAMB: Okay, sir, how much time would it take
22 for a notice to go from these video surveillance trucks
23 to -- I guess it would be maybe Cal Trans, CHP, or
24 San Bernardino, and then to somewhere at BNSF, and then
25 would it be relayed to the engineer?

1 MR. LINDSLEY: I would have no idea.

2 MR. LAMB: Well, how much time does the engineer
3 need to react?

4 MR. LINDSLEY: I am not familiar with that.

5 MR. LAMB: Would you agree with the general
6 principle that if the engineer does not have adequate time
7 to react, it could be a serious safety concern?

8 MR. LINDSLEY: Yes, it could be.

9 MR. LAMB: Okay. And, in fact, it's well known
10 that if an engineer blows through a signal, that could
11 result in a derailment, right?

12 MR. LINDSLEY: I believe that that's what
13 considered the potential consequence.

14 MR. LAMB: Right. And people could die, right?

15 MR. LINDSLEY: I suppose.

16 MR. LAMB: You haven't studied that though,
17 right?

18 MR. LINDSLEY: No, I have not.

19 MR. LAMB: Okay. Now, have you had an
20 opportunity to review the prepared direct testimony of
21 Dr. Krauss?

22 MR. LINDSLEY: No, I have not.

23 MR. LAMB: Have you seen it?

24 MR. LINDSLEY: No, I have not.

25 MR. LAMB: Have you seen the prepared direct

1 testimony of Dennis Skeels?

2 MR. LINDSLEY: Yes, I have.

3 MR. LAMB: Okay. And do you have any issues with
4 that testimony?

5 MR. LINDSLEY: None whatsoever.

6 MR. LAMB: Okay. And have you seen the prepared
7 direct testimony of Eddie Phillips?

8 MR. LINDSLEY: No, I have not.

9 MR. LAMB: Okay. Now, you understand then that
10 one of the things that Mr. Skeels is saying and asking for
11 is that prior to the first SunCatcher disc being mounted
12 on a pedestal, a site-specific glint/glare study shall be
13 performed at Calico Solar's expense to address the glare
14 glint issues raised by BNSF with respect to the potential
15 impact of the proposed Calico Solar SunCatchers on BNSF
16 rail operations.

17 Would you agree with that, sir?

18 MR. LINDSLEY: I would agree that that would be a
19 very responsible thing to do.

20 MR. LAMB: Okay. And should that be a condition
21 of certification?

22 MR. LINDSLEY: Absolutely.

23 MR. LAMB: And then it goes on to say the
24 recommended mitigation measures shall be reviewed by BNSF.
25 Would you agree that that's appropriate?

1 MR. LINDSLEY: Yes.

2 MR. LAMB: Because only BNSF can determine
3 whether or not it's going to be safe, right?

4 MR. LINDSLEY: That is correct.

5 MR. LAMB: And then if BNSF approves the
6 recommended mitigation measures they will be implemented
7 by Calico Solar at its expense.

8 Do you agree that that's a reasonable condition
9 of certification?

10 MR. LINDSLEY: Yes.

11 MR. LAMB: And then finally, the site-specific
12 study shall commence immediately upon BNSF's selection of
13 the experts to perform the study.

14 Do you agree that those are reasonable conditions
15 of certification?

16 MR. LINDSLEY: Yes.

17 MR. LAMB: Now, the reason why I bring that up,
18 sir, is because in the condition of certification that was
19 proposed, it sounds like the SunCatchers are going to be
20 in place, and then there's going to be some time period
21 afterwards.

22 Do you follow me?

23 MR. LINDSLEY: Yes.

24 MR. LAMB: But you agree with what Mr. Skeels put
25 in his testimony, right?

1 MR. LINDSLEY: Yes, I do.

2 MR. LAMB: Okay. So you would agree that that
3 would an appropriate modification of the conditions of
4 certification?

5 MR. LINDSLEY: Yes, I do agree.

6 MR. LAMB: Dr. Ho, are you still on the line,
7 sir?

8 DR. HO: Yes, I am.

9 MR. LAMB: Are you there, sir?

10 DR. HO: I'm here.

11 MR. LAMB: Okay. Great.

12 Sir, have you had an opportunity to review
13 Dr. Krauss's direct prepared testimony?

14 DR. HO: I reviewed some testimony; I do not
15 remember whose testimony it was.

16 MR. LAMB: Okay. Do you recall that there was an
17 expert that BNSF put forward and then two people, one by
18 the name of Skeels and one by the name of -- I'm sorry,
19 one by the name of Schnell?

20 DR. HO: Again, I'm not familiar with the names,
21 but if you could summarize the salient points, I would
22 appreciate it.

23 MR. LAMB: Sure. Well, you heard what I had just
24 read to Mr. Lindsley from the testimony of Mr. Skeels
25 regarding a proposed condition of certification.

1 DR. HO: Right.

2 MR. LAMB: And in relation to the science
3 involved in this, would you agree that that would be
4 reasonable?

5 DR. HO: Can you be more specific? What would be
6 more reasonable? What would be reasonable to do?

7 MR. LAMB: Sure.

8 What Mr. Skeels had proposed and what
9 Mr. Lindsley had agreed to, and I'd just read it for the
10 record, is, quote, "Prior to the first SunCatcher disc
11 being mounted on a pedestal, a site-specific glare/glint
12 study shall be performed at Calico Solar's expense to
13 address the glare/glint issues raised by BNSF with respect
14 to the potential impact of the proposed Calico Solar
15 SunCatchers on BNSF rail operations. The recommended
16 mitigation measures shall be reviewed by BNSF. If BNSF
17 approves the recommended mitigation measures, they will be
18 implemented by Calico Solar at its expense. The
19 site-specific study shall commence immediately upon BNSF's
20 selection of the experts to perform this study," end
21 quote.

22 And Mr. Lindsley had already testified in
23 relation to its reasonableness. I want to know from a
24 scientific basis, Dr. Ho, do you agree with that?

25 DR. HO: I think that's a reasonable request

1 perhaps with one caveat. If it's intended to be a
2 site-specific study, it may be worthwhile to allow several
3 of the SunCatchers to be in place to evaluate the
4 potential impact at the specific site. If there is an
5 issue, the requirement would be to not go forward until
6 those issues are rectified. Otherwise, to do is
7 site-specific study, I think it would be difficult to do
8 without having the actual SunCatchers in place.

9 MR. LAMB: Okay. You're aware of modeling which
10 is done to do site-specific surveys, right?

11 DR. HO: Yeah. And certainly that's what I did.
12 I did some modeling to provide some first-order estimates.
13 There are always conditions and factors in reality that
14 may differ from the modeling --

15 MR. LAMB: Let's talk about those modeling
16 conditions that you looked at, Dr. Ho.

17 Those were for a single SunCatcher, correct?

18 DR. HO: That's correct.

19 MR. LAMB: Okay.

20 DR. HO: So I'm just suggesting that in order to
21 do a rigorous site evaluation for the safety of the
22 railway engineers, it may be prudent to allow a number of
23 SunCatchers to be in place to do the physical site study
24 and if there is an issue, requirements would be put in
25 place at that point, or it would not be allowed to go

1 forward.

2 MR. LAMB: Well, wouldn't it be more appropriate
3 to try to do a model first, sir?

4 DR. HO: It could be. I'm just saying, you could
5 do the modeling, and I agree, you could do the modeling,
6 but what I heard you say in terms of the requirements and
7 conditions, that before a single SunCatcher is put in
8 place, that a study must be completed, a site-specific
9 study must be completed and approved by BNSF.

10 I'm just saying perhaps the most rigorous and
11 safest way to approach this would be to not only do the
12 modeling, but to also have a physical test performed as
13 well, physical being they actually have some SunCatchers
14 placed in location where, say, behind the signals where an
15 engineer would be able to see how does the signal appear
16 with several of these SunCatchers behind it.

17 MR. LAMB: Well, Dr. Ho, wouldn't that be more
18 appropriate to do that in a location where if it is a
19 problem, it's not going to cause engineers to be blinded
20 so that they smash into the rear of other trains and
21 people die?

22 DR. HO: Well, we could do a mock-up somewhere
23 else. I had thought about maybe doing it at Maricopa.
24 That's -- that's fine too. What I was addressing was the
25 specific wording.

1 You said a site-specific test. Perhaps if it
2 said that a test, say, at Maricopa County where they have
3 60 dishes could be done, a mock-up to evaluate the
4 contrast, the luminance of these signals relative to the
5 SunCatchers, the reflection from these SunCatchers, I
6 think I would be more amenable to that.

7 I'm just addressing your specific wording.

8 MR. LAMB: Sure.

9 So site-specific modeling for Calico Solar and
10 then an actual site study where the site is duplicated off
11 site.

12 DR. HO: That's possible. I think that would
13 be --

14 MR. LAMB: That would be better, right?

15 DR. HO: That would be better, yeah.

16 MR. LAMB: Okay. That would be the best.

17 All right now, in relation to your calculations
18 they were for a single SunCatcher, right?

19 DR. HO: Correct.

20 MR. LAMB: And your backup data that you've
21 provided, that was provided yesterday, on the 223 feet,
22 it's actually 67.91586593 meters, right?

23 DR. HO: Yeah.

24 MR. LAMB: And what you list in your chart is,
25 you list that as a minimum safe distance to prevent flash

1 blindness, right?

2 DR. HO: Right.

3 MR. LAMB: Minimum.

4 DR. HO: That's the safe distance, according to
5 the metrics described in the papers, that would mitigate
6 the potential for temporary flash blindness, right.

7 MR. LAMB: Well, is there a difference between
8 minimum safe distance and maximum safe distance?

9 DR. HO: I guess the terminology in my Excel file
10 that you're looking at, the wording is just intended to
11 mean that is the distance that you would need to be to
12 reach that threshold beyond which you would minimize the
13 potential for flash blindness. I don't know if this is
14 just syntax, but there is just one threshold.

15 If you look at the paper and you look at the
16 equations that I was using, it's meant to address a
17 threshold that defines a distance at which below that
18 distance there is a minimal potential for flash blindness,
19 above that distance there is a stronger potential for
20 flash blindness. So it is a single number.

21 MR. LAMB: Okay. So at 75 meters, we could still
22 have flash blindness.

23 DR. HO: At 75 meters, there would be a stronger
24 potential for flash blindness, yes.

25 MR. LAMB: Okay. And at a hundred meters we

1 could have flash blindness.

2 DR. HO: I believe so, yeah.

3 Oh, wait. I'm sorry. No. I'm sorry. I -- I
4 retract those statements.

5 At 68 meters or at 223 feet, that is the
6 distance, the maximum distance that can be causing a
7 strong potential for flash blindness. The minimum safe
8 distance is I guess the opposite of that terminology, you
9 want to be beyond that distance, to have a low potential
10 for flash blindness.

11 MR. LAMB: Okay.

12 DR. HO: But within that distance, there's a
13 stonger potential for flash blindness.

14 MR. LAMB: Okay.

15 DR. HO: So 223 feet is the defined boundary
16 using the data and the metrics that were published before,
17 so again, one more time, beyond 223 feet there is a low
18 potential temporary flash blindness; within 223 feet
19 there's a stonger potential for flash blindness, and
20 obviously there's continuum there, but that is the metric
21 and threshold that was used.

22 MR. LAMB: So if there's a low potential, you
23 can't tell me that it won't happen, right?

24 DR. HO: Yeah, it depends. And the reason that
25 its low potential is because there are human factors

1 involved, it depends, there are factors associated with
2 individuals, properties of the eye, how big their
3 pupils -- how big their pupils are dilated in the
4 sunlight.

5 MR. LAMB: Dr. Ho, these calculations that you
6 performed are for a single light source, a single
7 SunCatcher, right?

8 DR. HO: Correct.

9 MR. LAMB: And you would agree with Mr. Lindsley,
10 would you not, sir, that if you have multiple light
11 sources that's going to change the calculation.

12 DR. HO: Yes.

13 MR. LAMB: And you haven't done that calculation.

14 DR. HO: No, I haven't.

15 MR. LAMB: And in fact, the plan is to put
16 thousands of these SunCatchers online, right?

17 DR. HO: Right. And I just want to clarify,
18 though that this is for a worst-case scenario though where
19 you have a specular direct reflection of the sun, so if
20 these things happen to be either misaligned or off axis,
21 so not normal operating conditions where we can actually
22 see a direct reflection of the --

23 MR. LAMB: Okay. Well, sir, you referred to an
24 after image which is persistent for a short while, right?

25 DR. HO: Right.

1 MR. LAMB: How long?

2 DR. HO: Again, it can depend on the person, but
3 based on the data, it was sufficient such that if a
4 subject was unable to recognize an object, typically for
5 maybe a second or two, a few seconds afterwards, that was
6 deemed temporary flash blindness.

7 MR. LAMB: Okay. And would you agree, sir, with
8 the proposition that an engineer moving along a curved
9 track at different rates of speed that has a different
10 elevation, who is looking out over a field of SunCatchers
11 that are at different elevations and different angles,
12 could experience flash blindness from one SunCatcher, and
13 then the next SunCatcher and then the next SunCatcher, and
14 then the next?

15 DR. HO: If you're asking if there's a strong
16 likelihood, it depends on how far away those SunCatchers
17 are. If you're saying is it possible, if the SunCatchers
18 are within a certain distance, yes, it's possible, but
19 that's the reasonable I believe, for providing this
20 setback.

21 MR. LAMB: Okay. So within 223 feet it's likely.

22 DR. HO: Yes.

23 MR. LAMB: All right. So that would include
24 people that are traveling along the right of way on
25 maintenance vehicles within BNSF's right of way, right?

1 DR. HO: Yes. And what I'd like to comment
2 though, this temporary flash blindness, just to put a
3 perspective on it, it is no worse than something I think
4 we can all relate to, when you're driving behind a vehicle
5 and you see a reflection off the bumper or the rear-view
6 mirror, that's the type of thing we're talking about.
7 This image is going to be very, very small on any
8 individual SunCatcher, and so this temporary flash
9 blindness is in a very small portion of your field of
10 view.

11 And so when you're driving along on the road and
12 you happen to see a glint or reflection off the rear-view
13 mirror or somebody's bumper or off the flat windshield of
14 a pickup truck in front of you, it would be no worse than
15 that.

16 And the reason I say no worse is these are
17 focusing mirrors, the actual image size is going to be
18 much smaller than on a flat surface like a windshield or a
19 rear-view mirror.

20 MR. LAMB: Okay. Well, those studies were done
21 for motorists, right, sir?

22 DR. HO: Well, it's done -- no, it's not specific
23 to motorists, it's for any observer that can observe this
24 particular type of specular reflection.

25 MR. LAMB: But there have been no studies where

1 the observer's an engineer who is trying to pick out a
2 train signal that may a thousand, 2,000 feet away, right?

3 DR. HO: I'm not aware of that type of
4 distinction of trying to pick out a signal in, say, a sea
5 of dishes where there might be some higher luminances. I
6 would -- I don't know of any other studies like that.

7 MR. LAMB: Well, you didn't do one of those
8 studies, right?

9 DR. HO: I did not, no.

10 MR. LAMB: And you'd agree that the report that's
11 Exhibit A that I'll refer to as the Jewell report that you
12 co-authored, that didn't study that, did it?

13 DR. HO: Correct.

14 MR. LAMB: In fact, it doesn't reference at all
15 train signals, right?

16 DR. HO: Not to my knowledge. I'm not sure if
17 any specific wording was put in there. The parts I
18 contributed I did not address signals.

19 MR. LAMB: So you don't know anything about train
20 signals or LED lighting or hooding or shielding or
21 anything, right?

22 DR. HO: I don't know about the potential impacts
23 of LED light. I do know that by shielding you'd create a
24 larger contrast.

25 MR. LAMB: But you haven't done any studies for

1 that, right?

2 DR. HO: No, I have not.

3 MR. LAMB: And are you familiar with where the
4 signals are on the BNSF right of way?

5 DR. HO: Well, we had a discussion, a fairly
6 lengthy discussion with the BNSF and we did point those
7 out on a map, at relative elevations, positions. I
8 wouldn't be able to recount that for you at this point,
9 though.

10 MR. LAMB: Are you aware of any map or diagram
11 that's been submitted by the applicant that shows where
12 those signals are?

13 DR. HO: I'm not aware, no.

14 ASSOCIATE MEMBER BYRON: Mr. Lamb, this is
15 Commissioner Byron. Do you know, are there any signals
16 along the right of way that transits this site?

17 MR. LAMB: Yes, there are several.

18 ASSOCIATE MEMBER BYRON: Thank you.

19 MR. LAMB: Now, Mr. Lindsley, is it -- you
20 authored then the part of the SSA part two that deals with
21 traffic and transportation in relation to glint and glare?

22 MR. LINDSLEY: Yes.

23 MR. LAMB: Okay. And you'd agree that
24 Appendix A, the scientific study, there's nothing in there
25 about signals or modifying signals or LED lights or

1 anything of that nature, right?

2 MR. LINDSLEY: Actually, in Appendix A under --
3 well, let's see. No, I believe you are correct, I believe
4 in that report specifically that there is not -- there was
5 a signal light modification recommendation that we made
6 and I don't know where that was published. Ms. McLean
7 would probably know where that was referenced.

8 MR. LAMB: Well, I guess my question can be
9 either to you or to Ms. McLean, would you have agree that
10 the part of Trans 7 that refers to basically signal
11 modification, LED lights, hooding, shielding, that there's
12 no scientific basis for that found in Appendix A?

13 MR. LINDSLEY: I would have to go back through
14 and reread -- no, actually it is mentioned in Appendix A
15 on C.11-19.

16 MR. LAMB: Well, C.11-19 is not Appendix A, sir,
17 that's the staff report.

18 MR. LINDSLEY: You may be right.
19 Okay.

20 MR. LAMB: Okay, the staff report --

21 MR. LINDSLEY: So it's not in Appendix A, but it
22 is in the staff report.

23 MR. LAMB: Well, no study was done to support
24 that, right?

25 MR. LINDSLEY: No formal study.

1 MR. LAMB: Okay. Well, the staff made a
2 determination that this problem is mitigable through
3 shielding and LED lights. There's no scientific basis for
4 that statement, is there?

5 MR. LINDSLEY: Actually, there is scientific
6 basis in the fact that if -- the documented reference for
7 that work is the IES handbook, which is the standard by
8 the Illumination Engineering Society of North America for
9 the application of this technology.

10 Train signals and shielding and the design of the
11 convex lens and the light source have been around for
12 many, many years. And using that as a reference, if we
13 update that to the technology that is currently being
14 implemented throughout the United States, is the traffic
15 signal which is very similar in design, the light sources
16 there have been upgraded to LEDs which provide a greater
17 intensity. And we believe that through our experience
18 that it's possible to design a -- if it doesn't already
19 exist off the shelf with current LED technology, a light
20 source that potentially will be bright enough to overcome
21 the glare issues, but it would need to be mocked up and
22 field tested.

23 MR. LAMB: So you don't know as you sit here
24 today, if it can be done.

25 MR. LINDSLEY: No, but through my experience in

1 working with LEDs, I'm confident that it can be done.

2 MR. LAMB: How long will it take to do it?

3 MR. LINDSLEY: It may be available off the shelf.
4 That was outside of our scope of work to examine.

5 MR. LAMB: Okay. So would it be correct that
6 you're saying it's mitigable, but there's been no
7 scientific study to support --

8 MR. LINDSLEY: That's correct.

9 MR. LAMB: Okay. And you didn't -- you have no
10 familiarity yourself with train signals, right?

11 MR. LINDSLEY: I do from having specified them
12 previously.

13 MR. LAMB: Okay. Did I look at Mr. Skeel's
14 testimony in

15 MR. LINDSLEY: Yes, I did.

16 MR. LAMB: Okay. And you're aware that he said
17 that BNSF is working on some testing but there's no
18 standard that's been developed yet, right?

19 MR. LINDSLEY: Define "standard" and how it
20 relates to this topic.

21 MR. LAMB: No standard LED lights have been
22 approved by BNSF to place upon their line.

23 MR. LINDSLEY: That could be possible.

24 MR. LAMB: Okay. You have no reason to doubt
25 that, right?

1 MR. LINDSLEY: No reason at all.

2 MR. LAMB: And you have no way of knowing how
3 long it will take to develop that, right?

4 MR. LINDSLEY: No, I don't.

5 MR. LAMB: And that's the means that you're
6 suggesting to mitigate what could result in serious
7 injury, death, and derailment, right?

8 MR. LINDSLEY: That is correct.

9 MR. LAMB: I have no further questions.

10 HEARING OFFICER KRAMER: Thank you.

11 Any other party?

12 MR. JACKSON: This is Pat Jackson.

13 HEARING OFFICER KRAMER: Go ahead, Mr. Jackson.

14 CROSS-EXAMINATION

15 MR. JACKSON: Yes, to the expert, I'm wondering
16 do their findings on motorists traveling the highway,
17 would their findings be the same for a motorist traveling
18 a proposed public access road adjacent to the project
19 within 223 feet?

20 DR. HO: This is Cliff Ho. Again, if there's
21 anybody, any observer within 223 feet or thereabouts,
22 again, there's a continuum there, there is a potential, a
23 stronger potential for flash blindness. And again, it
24 depends on their factors such as their -- what are they --
25 what are they doing? Are they needing to have quick

1 responses? Again, I'm trying to draw an analogy of what
2 this might be like if you were to happen to observe a
3 off-normal condition where you do have a direct specular
4 reflection off the mirror. Again, that can happen when
5 there's misalignment to the facets, when it's off axis or
6 moving off axis, again, off normal conditions.

7 If you do happen to observe a specular reflection
8 and you're within, you know, roughly 200 feet or so, you
9 could have what we've, again, experienced driving in a car
10 behind a vehicle where you see this -- of the sun.

11 Is that a hazard? Again, I think it depends on
12 the function and the capabilities of the motorist and what
13 they're doing. I personally, when I drive, I experience
14 these a lot, driving home perhaps almost every day. I
15 feel -- I feel personally that I'm still capable and safe
16 to drive even though when I do see these reflexes off of a
17 bumper or windshield or something like that. Again, it's
18 a small part of the field of view. Really, the only way
19 you'd notice it is when I look at my odometer or look at
20 something else on the dash, and it's something where I
21 have to actually read or recognize some sort of numbering
22 that I say, oh, I guess I do have this sort of temporary
23 after image; otherwise, I think most of us experience this
24 and we can deal with it.

25 MR. JACKSON: One more question.

1 Do you think that flash blindness to be
2 acceptable to the elderly as a natural, you know, event?

3 DR. HO: I'm not sure I'm qualified to speak on
4 whether or not they would be -- their physiological
5 reaction. Perhaps there may be some -- I suspect there
6 could be some differences if their pupils are perhaps more
7 dilated. There could be some more impacts.

8 And again, that goes into the potential
9 uncertainty associated with the modeling. There are human
10 factors that certainly make all of us different from one
11 another in how we react to this potential impact of these
12 reflexes.

13 MR. JACKSON: Thank you very much.

14 HEARING OFFICER KRAMER: Couple questions.

15 Or any questions from the committee besides me?

16 Panel, I'm trying to understand, when you talk --
17 the source of the flash blindness would be the sun
18 reflecting off the mirror, that's the most intense light;
19 is that correct?

20 DR. HO: That's correct.

21 HEARING OFFICER KRAMER: And yet these
22 SunCatchers are designed to focus the sun on the engine.
23 So would it -- unless the mirrors are miss focused would
24 the engine in effect block most of that reflected
25 sunlight?

1 DR. HO: That's correct. The times when you
2 might get this direct specular reflection, as Alan had
3 pointed out in his opening testimony, are if you do have
4 misaligned facets, so they're missing the engine, and
5 another time when you could get direct specular
6 reflections is when these things are moving off axis with
7 the sun. This can happen either in the morning when they
8 go from the stowed position to a tracking position, or in
9 the evenings when you're moving from a tracking position
10 back to the stowed position. That is why it was
11 recommended by Alan to move these things in the morning
12 before sun rises, and in the evenings after sunset.

13 Another way you can get this direct specular
14 reflection is when they have an offset tracking position,
15 they deliberately move, they can deliberately move these
16 dishes to a off-axis position during the day while it's
17 sunny, and this is to accommodate clouds transient
18 passages of clouds, and it has to do with minimizing a
19 sharp rise in the flux in the engine. So they move it to
20 a off-axis position, and one of the recommendations I
21 believe, was rather than moving it to an offset position
22 that's only ten degrees, moving it to a larger offset
23 tracking position of I believe, 25 degrees, in a position
24 that would be more directed away from any observers.

25 So those are all ways to even mitigate the

1 possibility for observing these direct specular
2 reflections of the sun in the dish mirrors. If it does
3 happen, the proposal for the setback was to minimize
4 potential for an ocular impact of temporary flash
5 blindness, if it were to occur, if someone were to happen
6 to see it, but the previous measures again were to even
7 mitigate the possibility of this direct specular
8 reflection from these dishes. But if it did happen, the
9 additional setback would help to minimize the impacts of
10 temporary flash blindness.

11 HEARING OFFICER KRAMER: And is it the case that
12 this would -- this flash -- or could it be the case that
13 this flash would surprise an operator or so that it's hard
14 for them to just avoid looking in a particular direction
15 to avoid the possibility? Does that make sense to you,
16 the question?

17 DR. HO: Yeah, it's possible. I think that the
18 measures that were proposed that I just described are
19 intended to mitigate that possibility. But anytime these
20 things are either -- the facets are misaligned or that
21 they're moving off axis, depending on the position of the
22 sun, the depending on the location of the train engineer,
23 it could be possible, but those conditions again are
24 intended to mitigate that possibility.

25 HEARING OFFICER KRAMER: So to avoid having the

1 light directed at the operator, regardless of where he or
2 she is looking.

3 DR. HO: Correct.

4 HEARING OFFICER KRAMER: Okay. Is there
5 something the railroad could do to help minimize that
6 risk? For instance, placing the lights over the track so
7 that the operator is not looking off to the side of the
8 tracks at the lights or something of that nature? Would
9 that help at all?

10 MR. LINDSLEY: This is Alan Lindsley. I think
11 that that could help. That would be under the scope of
12 the field test, I believe.

13 HEARING OFFICER KRAMER: Anything else?

14 ASSOCIATE MEMBER BYRON: Thank you, Mr. Kramer
15 for taking up this line of questioning.

16 DR. HO: I'm sorry, can I -- I had one thought
17 though regarding that last question.

18 HEARING OFFICER KRAMER: Go ahead.

19 DR. HO: This is Cliff Ho. In addition to having
20 something overhead, again, it's difficult with trains
21 approaching from fairly large distance, but that's perhaps
22 a good suggestion. Maybe something even along the track
23 or towards the ground as opposed to being up higher where
24 you might have this array of many different dishes. Maybe
25 something towards the ground or ground based may even be

1 good.

2 Just a thought.

3 ASSOCIATE MEMBER BYRON: Gentlemen, this is
4 Commissioner Byron. Just a couple of quick questions.

5 As I understand it, these are parabolic
6 reflectors with the intent of focusing most of the sun's
7 light on to a single point of focus. Do you have any idea
8 how much of that light is normally absorbed or hits its
9 focal point versus misses the focal point and would be
10 reflected elsewhere?

11 DR. HO: This is Cliff Ho. I work with Chuck
12 Andreka at Sandia Labs. He's the lead engineer regarding
13 these dishes. He's done many, many years of research on
14 this. And for the SunCatchers of the dishes, the S E S
15 dishes that are on our site here, he estimates that
16 perhaps less than a percent actually do not make it into
17 the aperture. When it goes into full production mode,
18 when they're trying to, you know, produce thousands of
19 these dishes, he suspects the accuracy may be less, but I
20 would believe I remember in one of my conversations with
21 him that it would be no greater than five percent that
22 could miss the aperture. But of that five percent, much
23 of that would hit the engine face itself.

24 ASSOCIATE MEMBER BYRON: And when these devices
25 are moving to catch up with the sun or go into a stow

1 position, do they all move at the same time and at the
2 same speed when they're doing that movement, do you know?

3 DR. HO: I'm not sure.

4 ASSOCIATE MEMBER BYRON: Perhaps the applicant
5 knows.

6 MS. BELLOWS: Yes, I do know.

7 What occurs is that it -- for instance, if it
8 were a -- if you were going down at night, they go to
9 sleep at the same time, they're put to bed at the same
10 time, if you will. And then if you have a cloud cover
11 coming over, then as the cloud moves in, you would have
12 them go in sort of serially going into their offset
13 tracking position.

14 ASSOCIATE MEMBER BYRON: So you're saying when
15 they're catching up to the sun or moving, they all move
16 together?

17 MS. BELLOWS: If it's a cloud, then they will
18 kind of do it as the cloud --

19 ASSOCIATE MEMBER BYRON: Are their circumstances
20 under which 30,000 of these are going to move together?

21 MS. BELLOWS: Yes, there are.

22 ASSOCIATE MEMBER BYRON: Where you going to get
23 the electricity for that?

24 MS. BELLOWS: There is in general, some of it
25 comes off of the Edison grid.

1 ASSOCIATE MEMBER BYRON: Yeah. Thank you.

2 HEARING OFFICER KRAMER: Any other questions for
3 staff's witnesses?

4 MR. LAMB: I have a couple of follow ups, if I
5 could.

6 MS. FOLEY GANNON: I had a follow-up question
7 too.

8 HEARING OFFICER KRAMER: Let the applicant go
9 first, and then Mr. Lamb.

10 MR. LAMB: Surely.

11 CROSS-EXAMINATION

12 MS. FOLEY GANNON: And I think it's Mr. Lindsley
13 who is speaking to this, but anyone on the panel, when
14 Mr. Lamb was speaking to you, and I just wanted to make
15 sure I understood your response, he was asking you about
16 whether it was likely that you would have this sort of
17 serial glint effect happening, that the train going by,
18 you know, the SunCatcher field that you would be likely to
19 have this happen and then sort of one SunCatcher to the
20 next SunCatcher, and I thought you said yes to that, but
21 then in response to some further questions, and
22 particularly from Hearing Officer Kramer, I thought that
23 you said it was unlikely that this would be happening with
24 most of the SunCatchers individually or collectively.

25 Can you help clarify the answer to the question

1 that was posed? Is it likely that this is going to be
2 happening, again, if there is a train going by, that they
3 would be experiencing this flash effect from a series of
4 SunCatchers in a row?

5 DR. HO: This is cliff. And the type of
6 reflection that I was speaking to, this direct specular
7 reflection, I feel that it would be unlikely if they did
8 implement these measures to try to minimize potential for
9 even having these direct specular reflections.

10 So if you're driving -- if you're riding along
11 within this array of dishes, you might see a glint of a
12 direct specular reflection from one that might happen to
13 be moving into an offset tracking position, or there might
14 be a misaligned facet, but then to at the very next
15 fraction of a second into the next row of dishes, and see
16 the same thing, I think would be highly unlikely.

17 Now, there is another type of reflection or glare
18 that was alluded to before where the dishes are sort of
19 pointed in your direction, you can see the dish behind the
20 power conversion unit. In that case you do get this halo
21 effect, but that halo, from my personal observations with
22 the dishes here at Sandia is a very low luminance level
23 and it is not the same that could cause the flash
24 blindness.

25 So this likelihood of having a sequential series

1 of flashes from direct specular reflection, I think is
2 minimized -- is small, it's not likely, especially if you
3 implement, they implement the procedures that were
4 recommended. But there will be this halo effect, but the
5 actual luminance values of the halo is very low.

6 MS. FOLEY GANNON: Thank you. And a follow-up
7 question, I also believe and I can't remember who was
8 testifying to this, but the fact that the 223 foot setback
9 would also minimize that effect. So I would assume if
10 you're looking at the likelihood of such a sequential or
11 serial effect happening, that would also be affected by
12 whether the setback was utilized. Meaning if the
13 SunCatchers were all at least 223 feet back from the
14 railroad, would that also go into the calculus of the
15 level of impact that you think could occur?

16 DR. HO: That's correct. So it were to occur,
17 having the setback would additionally minimize the
18 potential impacts.

19 MS. FOLEY GANNON: Thank you.

20 No further questions.

21 HEARING OFFICER KRAMER: Mr. Lamb?

22 CROSS-EXAMINATION

23 MR. LAMB: Thank you. Dr. Ho, 223 feet, that's
24 the minimum, right?

25 DR. HO: Yes, within 223 feet there is a strong

1 potential for temporary flash blindness.

2 MR. LAMB: So wouldn't it be prudent to have some
3 type of safety buffer beyond that?

4 DR. HO: That's possible.

5 MR. LAMB: I didn't ask that, sir.
6 Wouldn't it be prudent?

7 DR. HO: It would be prudent.

8 MR. LAMB: Thank you. Now, you talked about
9 veiling impacts and halo effect, right?

10 DR. HO: Well, I talked about the halo effect,
11 yes.

12 MR. LAMB: And there's veiling impacts, also,
13 right?

14 DR. HO: Yes. And again, I defer to Alan
15 regarding impacts. He has more experience with veiling.

16 MR. LAMB: But neither of you has studied that,
17 right?

18 DR. HO: I've actually personally studied the
19 halo effect at our site. I've measures the luminance
20 values relative to --

21 MR. LAMB: To how many SunCatchers, sir?

22 DR. HO: To a single SunCatcher.

23 MR. LAMB: To a single SunCatcher.

24 So there's been no measurement of the halo effect
25 of multiple serially aligned SunCatchers perhaps in the

1 thousands, correct?

2 DR. HO: Not to my knowledge.

3 MR. LAMB: And there's been no study of the
4 veiling impact of thousands of SunCatchers, right?

5 MR. LINDSLEY: That would be correct. This is
6 Alan Lindsley.

7 MR. LAMB: And you would both agree that there's
8 been no human factors analysis or cognitive --

9 (Loud interrupting noise.)

10 MR. LAMB: Did I do that?

11 ASSOCIATE MEMBER BYRON: It's a train coming
12 through.

13 MR. LAMB: Would you both agree that there's been
14 no human factors or cognitive recognition analysis of what
15 a receptor would do in relation to the halo effect or the
16 veiling impact?

17 MR. LINDSLEY: That would be correct.

18 MR. LAMB: And wouldn't it be prudent to have
19 that study before you proceed?

20 MR. LINDSLEY: Sure.

21 MR. LAMB: Okay. Now, there's been some
22 conversation about moving signals.

23 Neither of you have any idea of whether that can
24 be done, right?

25 MR. LINDSLEY: Actually, yes. Historical

1 references show that train signals have been located at
2 the ground level previously. That's been around for
3 probably 40 or 50 years or more. You have switching
4 signals which are down low, I photographed some in
5 downtown San Francisco on the Cal rail line that are
6 located directly above the track, probably I'm going to
7 say 30 meters. And they are also normally located to the
8 side of the track. BNSF would be the best source for that
9 information as to what their standard procedures would be.

10 MR. LAMB: These aren't switching signals, right?

11 MR. LINDSLEY: I believe -- well, I was not in
12 the phone call with BNSF, but I believe that there would
13 have to be based on the knowledge that I have of the
14 tracks that are going through that area.

15 MR. LAMB: You're just making assumptions about
16 moving the signals, right?

17 MR. LINDSLEY: Well, no, I know where
18 historically signals can be placed. I don't see any
19 reason why a historical application could not be used in
20 this case. Here again, it would be BNSF who would be the
21 expert for the visibility for their own operators.

22 MR. LAMB: Okay. So you don't know then, right?

23 MR. LINDSLEY: No.

24 MR. LAMB: And you would rely on BNSF?

25 MR. LINDSLEY: Yes, I would.

1 MR. LAMB: And you don't know what federal
2 regulations they have to comply with?

3 MR. LINDSLEY: No, I do not know the federal
4 regulations specifically.

5 MR. LAMB: Okay. I don't know if this is
6 appropriate, Hearing Officer Kramer, but Mr. Lindsley for
7 the staff has agreed to our proposed condition of
8 certification and if the applicant concurs and stipulates
9 to it, that could curtail some of this examination. I
10 appreciate that the commission has a lot to do today --

11 MR. ADAMS: I object to the characterization that
12 Mr. Lindsley is Imbued with the authority to agree to
13 things on behalf of staff. In fact, I've been waiting
14 patiently for redirect to set the record straight on that
15 point.

16 HEARING OFFICER KRAMER: Do you have more
17 questions, Mr. Lamb?

18 MR. LAMB: No.

19 HEARING OFFICER KRAMER: Okay. Mr. Adams,
20 redirect?

21 REDIRECT EXAMINATION

22 MR. ADAMS: First, for the clarification. We --
23 staff would not and believes it cannot agree to any
24 condition that would give BNSF approval authority as part
25 of the condition. We have spent many hours with BNSF

1 working on these issues and sharing information, we'll
2 continue to do so. BNSF is --

3 MR. LAMB: You know, I'm going to object to that
4 representation. I'm going to let him continue, but if we
5 need to make a record of that, we will. What was
6 submitted yesterday is not accurate in that regard, and
7 this is very disturbing to us.

8 HEARING OFFICER KRAMER: Submitted by whom and --

9 MR. LAMB: Submitted by the staff late in the
10 afternoon, and it references supposedly Ms. Burch
11 coordinating regarding signals, which is just not
12 accurate.

13 HEARING OFFICER KRAMER: Okay. Well, we don't
14 decide things on the basis of, you know, who said what, so
15 we can -- I think we can just short circuit that
16 conversation and continue to talk about the merits of
17 conditions that are proposed or not.

18 MR. LAMB: Well, counsel for staff is making a
19 representation about what occurred in conversations but
20 presenting no evidence to that. And we have e-mails and
21 we've presented them, they're attached to one of the
22 prepared testimonies that show that that did not occur.

23 HEARING OFFICER KRAMER: Okay. Well, so we are
24 hearing that you do not agree with their assertion that
25 you agree with them, and they just disagreed with your

1 assertion, and so what we'll get to is a discussion of the
2 merits of the conditions that are proposed and I think
3 that will be more fruitful. It has almost no weight with
4 us, you know, what somebody may or may not have promised,
5 as long as they clear that up with us here in this hearing
6 today.

7 MR. ADAMS: Okay. So any way, to set the record
8 straight, we could not support a condition that gives BNSF
9 approval authority subsequently, instead that would be
10 for -- for studies and plans to be approved subsequently
11 subject to the project manager approval. Certainly BNSF's
12 opinion on that would hold considerable weight. BNSF
13 would also be free to continue, as I understand it has
14 been talking to applicant and reaching agreement with
15 applicant on certain features of the project.

16 I have just a few questions for our panel on
17 redirect, and I'll hold it to a minimum.

18 There have been several questions that suppose
19 that adding a number of units of these SunCatchers, that
20 you will see that a viewer could see glare simultaneously
21 from any number of SunCatchers. Do any of you have an
22 opinion of the likelihood of that, in other words, that
23 the glare on the halo effect would be cumulative from a
24 single vantage point, and so any judgment as to how many
25 cumulative, how many units would be casting glare on any

1 one point at a time.

2 DR. HO: This is Cliff Ho. I do believe there's
3 a potential for a compounding effect for this halo effect,
4 but against, the luminance of the halo is very low and
5 does not cause temporary flash blindness even at very,
6 very close distances, within tens of meters. So I didn't
7 even include that in my analysis for the 223 foot setback.

8 But there is a possibility that for this issue of
9 the signal, that if you did have a large array of these
10 dishes, and again, they're always positioned that you as
11 an observer, a train operator are looking, trying to look
12 at the signal and in the background is a large array of
13 these dishes with the PCU in between the observer and the
14 disc, you will see this halo although it is a lower
15 intensity, a study would be warranted to see if that is
16 impeding in the operator's ability to discern the signal.

17 As far as the other more severe reflection, this
18 direct specular reflection of the sun when there's miss
19 alignment for offset tracking or movement of the dish off
20 axis, again, I think it's unlikely that it would be seen
21 throughout a large number of dishes other than the
22 potential for again, these -- when they're in an offset
23 track position, they're moved deliberately off axis. Now,
24 if they're moved off axis, and you're in a position as an
25 observer that you can see, still see the reflection of the

1 sun in the mirror, it would be possible to see that direct
2 sun reflection in more than one dish. It's again, a
3 reason for this recommendation to position these dishes in
4 an offset tracking position such that you would minimize
5 that possibility.

6 MR. ADAMS: Thank you. Do either of you, and
7 speaking to the two of you on the phone, do you have any
8 basis to believe that the glint glare study that you have
9 conducted would be different for train engineers and for
10 other viewers, and if so, could you explain what
11 difference would be, might be?

12 MR. LINDSLEY: Cliff, do you want to address
13 that?

14 DR. HO: I don't think that the study I did,
15 which provided the estimate for the 223 foot setback would
16 change. I think the additional consideration of how an
17 operator might be able to -- a train operator might be
18 able to discern a signal in a surrounding field of perhaps
19 a low luminance halo effect, again, I think that is a
20 difference that has not been investigated from typical
21 motorists who are not necessarily needing to discern the
22 color of a signal or the -- yeah, discern a signal light.

23 MR. ADAMS: Final question. With the sequential
24 effect that you've talked of previously, with the setback,
25 how significant would you judge that potential sequential

1 flashing?

2 DR. HO: I don't think its -- if the setback is
3 implemented, I don't think that a sequential effect would
4 be that significant. The impact, the potential for
5 temporary flash blindness would be minimized, and I think
6 it would be analogous to driving along side a row of
7 windows when the sun is perhaps positioned such that if
8 you looked off to the side you would see this. And it's
9 not in your -- I don't think it would have a significant
10 impact, especially if it was beyond 223 feet away.

11 MR. ADAMS: Thank you, that's all our questions.

12 HEARING OFFICER KRAMER: Okay.

13 MR. LAMB: I have a few questions, follow up to
14 staff's questions, if I may.

15 HEARING OFFICER KRAMER: Okay. Please.

16 RECROSS-EXAMINATION

17 MR. LAMB: Of all those responses that were just
18 given about what do you think, those were opinions that
19 you've made without any scientific basis or study for
20 that, correct?

21 MR. ADAMS: I object to this. These witnesses
22 have been accepted as experts. Their opinion are of
23 expert weight, and Mr. Lamb's questions are spending a lot
24 of time trying to establish the fact that there isn't a
25 specific study precisely tailored to the exact parameters

1 he would like to see.

2 HEARING OFFICER KRAMER: Well, overruled. He is
3 allowed to ask them what specifics they're basing their
4 opinions on.

5 So panelists, do you need the question repeat
6 the?

7 DR. HO: Yes, go ahead and repeat the question,
8 please.

9 MR. LAMB: You just responded to a number of
10 questions by Mr. Adams about what you think. That's not
11 based on any scientific study, correct?

12 DR. HO: I think it is based on what --

13 MR. LAMB: What scientific study, sir?

14 DR. HO: On the scientific studies and the
15 results of my calculations. The question that I was asked
16 is if there's a 223 foot setback, would that minimize the
17 impacts of this potential sequential glinting effect. And
18 I said, yes, it would.

19 MR. LAMB: You haven't measured that, right?

20 DR. HO: I haven't measured what?

21 MR. LAMB: The sequential impact of the glint
22 impact, the glint effect.

23 DR. HO: My response was with regard to -- with
24 the 223 foot setback would that minimize any impact from
25 the potential of sequential glare.

1 MR. LAMB: Sir, that's not what I asked you. I
2 asked you if you'd measured it.

3 DR. HO: I'm not sure what you mean, I've
4 measured it. Measured what?

5 MR. LAMB: The only thing you've measured is the
6 impact of a single SunCatcher, right?

7 DR. HO: I've estimated the setback for a single
8 SunCatcher glare, yes.

9 MR. LAMB: That's the only thing you've done,
10 right?

11 DR. HO: And sequential means that you happen to
12 see one, you see another, and you see another. That's how
13 I interpret "sequential." If you're talking about a array
14 of concurrent reflections, no, I have not analyzed that
15 situation.

16 MR. LAMB: Okay. You reference that -- the five
17 percent. Can you explain what the five percent is again?

18 DR. HO: A question was made, how much spillage
19 might occur from these SunCatchers that misses the
20 aperture. So I believe from discussions with Chuck
21 Andreka at Sandia Labs, that -- and this is his estimate,
22 that perhaps at most five percent, at most five percent
23 would miss the aperture. He believes the ones we have,
24 that we tested at our facility are less than one percent.
25 But the spillage of the SunCatchers that are put perhaps

1 at Calico hills because of the large production value,
2 they may not be as accurate, maybe five percent spillage.

3 MR. LAMB: What's 34 thousand times five percent?

4 DR. HO: I don't have that offhand, right now.
5 But what's your point?

6 MR. LAMB: It's more, right?

7 DR. HO: Yeah, but I think it goes to -- are you
8 asking at any one point, an observer, what can they see?

9 MR. LAMB: Okay. Well the observers are moving,
10 right, the engineers are moving, right?

11 DR. HO: You can't see the entire field of dishes
12 at once. I don't know if you've seen the rendering, the
13 artist's rendering of what these dishes look like as
14 you're along side them, but you see maybe the first row of
15 dishes. I guess I'm -- I don't understand your point
16 about --

17 MR. LAMB: Sir, sir, that's on a flat surface.
18 This is not on a flat surface, right?

19 DR. HO: Yeah, but regardless, even if you
20 were --

21 MR. LAMB: There's a three degree grade going
22 north, right?

23 DR. HO: Yes. My point is even if you were to
24 have a bird's eye view of this entire field, based on the
25 position of the sun and the orientation of these

1 SunCatchers, you don't see the same glare in all the
2 dishes at the same time.

3 MR. LAMB: Okay. A motorist has a different
4 angle than an engineer, right?

5 DR. HO: I assume he'd be lower.

6 MR. LAMB: Okay. So you're going to put these
7 into different positions based on what, the motorist or
8 the engineer or both?

9 DR. HO: No, you're not deliberately putting
10 these into -- the dishes into different positions. They
11 are tracking the sun based on the position of the sun.
12 Depending on where the observer is, whether it's a
13 motorist or a train operator, my point is simply you will
14 not see a glare, a specific glare, whether it's halo glare
15 or a direct specular reflection from the entire field much
16 less even a fraction of the field. It's just angles and
17 optics. You can not see the whole thing. Your question
18 that I objected to is what's 35,000 times five percent,
19 that's irrelevant.

20 MR. LAMB: How many will engineers see in this
21 field of vision?

22 DR. HO: That I agree, is worthy of a study. How
23 many can he see that have some brighter luminance in the
24 background? I agree, that's worthy of a study.

25 MR. LAMB: All right. When the engineer is

1 traveling from east to west and he crosses where the crest
2 Pisgah station is, he's going to essentially go into a
3 tunnel of mirrors, right?

4 MR. ADAMS: I think that doesn't state the
5 record. 223 foot setback from the edge of the right of
6 way and the I don't know exactly how tall these are, but a
7 tunnel, I think misstates the record.

8 HEARING OFFICER KRAMER: Is that setback from the
9 edge of the right of way or from the tracks?

10 MR. LINDSLEY: From the edge of the right of way.

11 HEARING OFFICER KRAMER: Okay. So it would be --
12 and the right of way is how wide?

13 MR. LINDSLEY: I don't know offhand.

14 HEARING OFFICER KRAMER: 50 to a hundred feet at
15 least?

16 MR. LAMB: Approximately a hundred, it can be
17 hundred.

18 MR. JACKSON: This is Pat Jackson. It's 200 feet
19 at one section and 400 feet at --

20 MR. LAMB: It can be less than --

21 HEARING OFFICER KRAMER: Okay. Mr. Jackson just
22 said 200 feet to 400 feet in that area.

23 MR. LAMB: Well, that's not accurate.

24 HEARING OFFICER KRAMER: Okay. Well, we don't
25 have to establish that as a --

1 MR. LINDSLEY: I'd say the assumption and the
2 standard as it was applied is no matter what the right of
3 way is, and no matter where the observers are that the
4 setback should be from the edge of the right of way. That
5 would be the conservative application. So the effective
6 distance to the observer would be much greater.

7 DR. HO: And that's a good point. This is
8 Cliff Ho. For clarification, that calculation at 223 feet
9 would be between your eye, the observer's eye and the
10 dish. So if there is an additional buffer caused by the
11 rate of way, then that would be additional distance added
12 to that.

13 HEARING OFFICER KRAMER: Mr. Lamb, it seems as if
14 you're starting to re-plow ground here. So do you have
15 any more questions or -- I presume you have your own
16 witnesses who might also offer some thoughts.

17 MR. LAMB: We do. We do.

18 HEARING OFFICER KRAMER: So should we move on to
19 them at this point?

20 MR. LAMB: That's fine.

21 HEARING OFFICER KRAMER: Okay. I have a question
22 for you, for the exhibit list. I had a -- well, I can't
23 find this testimony you referred to from a Mr. Krauss, but
24 I do have two separate, I believe they're -- in comparing
25 the two they do not look identical, but two separate

1 declarations from Mr. Phillips; is that correct? One --

2 MR. LAMB: That's correct.

3 HEARING OFFICER KRAMER: Okay. So far we've just
4 numbered your documents --

5 MR. LAMB: 1201, 1202.

6 HEARING OFFICER KRAMER: Okay.

7 MR. LAMB: So we should be starting on 1203.

8 HEARING OFFICER KRAMER: So would 1203 be Mr. --
9 or could it be Mr. Phillips's August 17th declaration?
10 Does that upset your -- or did you have a scheme?

11 MR. LAMB: We can do that, but he's a different
12 issue, he's the access issue.

13 HEARING OFFICER KRAMER: Oh, okay. All right.
14 Well, tell me -- we'll hold that off then.

15 And what is your next exhibit beyond 1202?

16 MR. LAMB: 1203 would be Schnell. 1204 would be
17 Skeels. And this is his second declaration. And 1205
18 would be Krauss.

19 HEARING OFFICER KRAMER: And that was Shell you
20 said?

21 MR. LAMB: Skeels, S-k-e-e-l-s.

22 HEARING OFFICER KRAMER: That's 1204.

23 MR. LAMB: Yes, sir.

24 HEARING OFFICER KRAMER: 1203?

25 MR. LAMB: Schnell, S-c-h-n-e-l-l.

1 1205 would be Krauss. And 1206 can be Phillips.

2 HEARING OFFICER KRAMER: Phillips you said?

3 MR. LAMB: Yes, sir.

4 (Intervenor BNSF's Exhibits 1203 through 1206
5 were marked for identification.)

6 HEARING OFFICER KRAMER: When did those get
7 circulated, because I -- I'm having a devil of a time
8 finding them in my e-mail.

9 MR. LAMB: Yesterday.

10 HEARING OFFICER KRAMER: Okay. I'll look again.
11 I think I just found the one.

12 MS. HOLMES: That's staff's experience also.
13 We've only seen one.

14 HEARING OFFICER KRAMER: So could one of you
15 quickly e-mail the others? Well, it won't help
16 Ms. Holmes, but --

17 MR. LAMB: Well, I have them on a flash drive,
18 and I can give them to --

19 HEARING OFFICER KRAMER: Okay. Do you have
20 copies for us?

21 MR. LAMB: They were mailed.

22 HEARING OFFICER KRAMER: But yesterday.

23 MR. LAMB: Yes.

24 HEARING OFFICER KRAMER: So they're in the
25 capable hands of the federal government.

1 No, we're just -- so we can look at them.

2 MR. LAMB: Well, frankly, Mr. Kramer, as was the
3 response that we got yesterday afternoon.

4 MS. HOLMES: But you did receive it, we haven't
5 received all the declarations that's the concern we have.
6 We've only received one.

7 HEARING OFFICER KRAMER: Yeah, I think we just
8 received Mr. Phillips in the e-mail yesterday, and I'm
9 simply trying to provide a way that we can all look at it.
10 That's all. So if you can e-mail it to Ms. Holmes, she
11 can go have copies made forthwith.

12 MR. LAMB: I have it right on this flash drive.

13 HEARING OFFICER KRAMER: Oh then, she could take
14 that.

15 MR. ADAMS: Hearing Officer Kramer, if the
16 parties are done with the staff witnesses, I would ask if
17 Dr. Ho could be excused. He's volunteering his time on a
18 family day, and I'd like to allow him to get off the
19 phone.

20 HEARING OFFICER KRAMER: Well, if you don't think
21 you might want to have him respond to what we're about to
22 hear that you haven't seen yet, that's your choice.

23 MR. ADAMS: Okay. Thanks.

24 DR. HO: I can try to hang on as necessary.

25 HEARING OFFICER KRAMER: While Ms. Holmes is

1 getting that, why don't we take a five-minute break, so
2 we'll leave the telephone lines active, but we're off the
3 record for the moment.

4 (Recess.)

5 HEARING OFFICER KRAMER: Okay. Ms. Holmes, what
6 did you -- what were you able to generate with your
7 printer?

8 MS. HOLMES: Well, we have 15 copies of the
9 testimony of Krauss and Heckman without the CVs, and then
10 there were some additional pages that were attached that
11 we didn't understand. Those were not printed out. The
12 CVs, for some reason, something about the format they were
13 in were taking incredibly long to print out. And we're
14 about ready to have the other two documents come
15 downstairs as well.

16 Unfortunately, some of them had color
17 photographs, and we don't have a color printer available,
18 so we won't have the advantage of that.

19 So hopefully we'll get those other ones soon. I
20 would just like to say that I don't -- I think staff has
21 an objection to this coming into the record at this point
22 since we haven't had the opportunity to read it. I'm not
23 assure we are going to have any concerns about it, but
24 since we haven't yet read it and have the opportunity
25 today, I can't see accepting having it come into the

1 record.

2 HEARING OFFICER KRAMER: Without the opportunity
3 for further cross.

4 MS. HOLMES: Well, it may be that we don't need
5 cross, it may be that when we're done looking at it, we
6 could -- we could tell the committee that we don't see a
7 need to have a further hearing on it, but without having
8 read it, we can't say that.

9 HEARING OFFICER KRAMER: I understand.

10 MS. HOLMES: So I will pass around the copies
11 without the CVs and the pictures of the lines for Krauss
12 and Heckman, and the others should be down here soon.

13 HEARING OFFICER KRAMER: Okay. Mr. Lamb, do you
14 know what she's referring to as far as the exhibits that
15 didn't print so well?

16 MS. HOLMES: It's just that the -- there's
17 something about the format that the CVs were in, it was
18 taking about a minute a page, so we simply skipped it in
19 an effort to try to get the declaration downstairs
20 quickly.

21 MR. LAMB: It's all pdf, so it's all the same.
22 And it was all one document, and it was all submitted
23 yesterday, and it was all filed and served yesterday. All
24 of this was, frankly, served before Phillips, which you
25 have. So those were served three, and they were

1 yesterday, hours before Phillips was.

2 As far as the exhibits, the exhibits are pdfs.
3 When the thumb screw drive comes down and can be provided
4 to the applicant, we can certainly put them on the screen
5 because they are color and there are some color
6 photographs attached to some of the testimony.

7 And as far as having ample time, I think the
8 record is replete with the staff and applicant submitting
9 things -- we got something on cultural resources yesterday
10 afternoon, I think it was around 18-, 1900 from the
11 applicant that is going into the record. So we think it's
12 important that all this testimony goes into the record so
13 that the commission can review and examine all of it and
14 make an appropriate determination, particularly given the
15 short time frames that have occurred that were referenced
16 earlier in terms of whether or not, frankly, there's even
17 compliance with the schedule in terms of the ability to
18 respond in time when we're given things, you know, one,
19 two days ahead of time. And that's been happening for
20 several weeks now.

21 MS. HOLMES: Staff doesn't -- I'm sorry.

22 I said, staff doesn't have an objection to the
23 testimony that came in last night. It's simply the
24 testimony that we -- don't believe we have been served
25 with yet.

1 HEARING OFFICER KRAMER: Which is a portion of
2 what Mr. Lamb believes we did receive.

3 Well, Mr. Lamb, we can go ahead today. I think
4 we'll have to wait and see if it's possible to close it
5 today or if it's necessary to allow for the opportunity
6 for further cross-examination on Monday if -- I'm starting
7 to see how that decision's going to work.

8 So again, you have the --

9 PRESIDING MEMBER EGGERT: Hearing Officer Kramer,
10 I know this issue of a, basically a right of way corridor
11 came up before the break, and I'm wondering if it's at all
12 possible to get resolution on what the actual distance is
13 in terms of if that information is available.

14 HEARING OFFICER KRAMER: Yeah, Mr. Jackson, you
15 were reading from a document, and you said the right of
16 way was 200 to 400 feet. Could you tell us what document
17 that it; and is it part of the record all right?

18 MR. JACKSON: No. This is Pat Jackson.

19 There's two documents that refer to the width of
20 the railroad right of way in that area. One set of
21 documents is the county assessor's plat map. Another
22 document is one that I picked up at the county surveyor's
23 office, and it shows that the right of way was -- is 200
24 feet for most of the distance except for the siting, the
25 Hector siting, and there the right of way width in total

1 is 400 feet. It's 200 feet on each side of the center of
2 the right of way.

3 HEARING OFFICER KRAMER: So those -- those sound
4 like you're describing assessor's parcels?

5 MR. JACKSON: No. No. The first one was the
6 assessor's, and the second one that I'm refer to is an
7 actual survey -- I have to -- I just put it away, and
8 trying to find it out is going to be -- hold on for a
9 second.

10 HEARING OFFICER KRAMER: So that's no doubt a
11 document that you did not have electronically?

12 MR. JACKSON: No, this is one that I picked up at
13 the county surveyor's office to verify the rate of way
14 with -- as it pertains to the roads that go through the
15 area. Okay?

16 And actually, there's a series of them. Hold on
17 let me grab one so I can get you the official title. So
18 anybody can pick it up at the --

19 PRESIDING MEMBER EGGERT: I guess I would also
20 ask --

21 MR. JACKSON: -- County --

22 PRESIDING MEMBER EGGERT: -- I don't know if
23 BNSF, the intervenor has any information --

24 MR. JACKSON: -- Surveyor's office.

25 PRESIDING MEMBER EGGERT: -- On this topic or has

1 any documents that would shed light on this particular
2 piece of information.

3 MS. BURCH: Are you asking simply about the right
4 of way, or are you asking the width between the track and
5 the right of way?

6 PRESIDING MEMBER EGGERT: So one of the issues
7 that we've been exploring this morning through the
8 testimony and cross was the specific distance that's
9 associated with the analysis that's been done and whether
10 or not there is the need for a further safety factor,
11 buffer, you know, any additional distance that might be
12 added to that in the case of, you know, the determination
13 of significance as described by the experts earlier. And
14 so it seems that its relevant that if the analysis is done
15 for a 224 foot distance from the receptor to the
16 SunCatcher, and the distance that's being proposed for the
17 buffer is 224 feet from what, is the question? Is it 224
18 feet from the track --

19 MS. BURCH: The edge of the right of way. And
20 the reason for that is that the tracks can be built right
21 up to the edge of the right of way.

22 PRESIDING MEMBER EGGERT: Okay.

23 MS. BURCH: So while they currently aren't, this
24 being a 30-year project, the railroad needs to preserve
25 the ability, of course utilize its right of way to build

1 tracks. So the agreements thus far are from the edge of
2 the right of way.

3 PRESIDING MEMBER EGGERT: Okay.

4 MS. BURCH: And so a buffer beyond the two -- and
5 so again, modeling would put engineers at tracks at
6 elevations out to the edge of the right of way, and then
7 you could calculate the 223 feet from there.

8 Is that responsive?

9 PRESIDING MEMBER EGGERT: That's very helpful,
10 thank you.

11 HEARING OFFICER KRAMER: Okay. So, Mr. Jackson,
12 I don't think we need the exact cites then, but thank you
13 for digging.

14 Okay. So Mr. Lamb, you've identified
15 Exhibit 1203 from Schnell, 1204 additional testimony from
16 Dennis Skeels, 1205 is from -- is it Dr. Krauss?

17 MR. LAMB: Yes, sir, and for the record, those
18 were e-mailed at 12:55. I've got the e-mail. They were
19 e-mailed to the entire group. I think applicant got them.

20 MS. FOLEY GANNON: Yes, we just confirmed, we did
21 receive it.

22 MR. LAMB: Oh, I appreciate that. There's a lot
23 of stuff that's gone back and forth.

24 HEARING OFFICER KRAMER: Yeah, I was about to
25 look in my spam filter to see if it ended up there.

1 MR. LAMB: Oh, you wound me deeply, Mr. Kramer.

2 HEARING OFFICER KRAMER: But I'll have to do that
3 later.

4 Okay. And then 1206 was additional testimony
5 from --

6 MR. LAMB: Edward Phillips.

7 HEARING OFFICER KRAMER: -- edward Phillips. So
8 go ahead and present your direct testimony, and we will
9 have to decide later if the parties feel that they need
10 additional time to decide whether they need additional
11 cross-examination.

12 MR. LAMB: That's fine. What we would propose is
13 having Mr. Schnell, Mr. Skeels and Dr. Krauss come up,
14 essentially we've been trying to do this in as efficient
15 manner as possible as a panel. They'll have separate
16 questions and they can certainly be asked questions
17 separately, but their testimony all relates to the same
18 issue.

19 HEARING OFFICER KRAMER: Okay. You're rather far
20 from the mic. Are folks on the telephone hearing him
21 okay?

22 MR. STOBAUGH: Yes, I can hear him. This is Jim
23 Stobaugh.

24 HEARING OFFICER KRAMER: Okay. Good. This is
25 exact opposite of the problem we had in Barstow.

1 MS. HOLMES: Not from our perspective it isn't.

2 HEARING OFFICER KRAMER: Go ahead, Mr. Lamb.

3 MR. LAMB: Well, I guess logistically, where do
4 you want them to go?

5 HEARING OFFICER KRAMER: Oh, let's see. You need
6 four seats?

7 MR. LAMB: Three seats, sir. Three seats.

8 HEARING OFFICER KRAMER: And are these two
9 gentlemen here part of your party?

10 Okay. So those two gentlemen will step back, and
11 does that lead enough room along side Mr. Cashen? It
12 looks like it does. But Mr. Cashen and Ms. Smith, you may
13 at some point have to vacate if we get bigger panels.
14 Well, is there a spot next to -- no.

15 So bring them up, and they need to be sworn,
16 presume.

17 MR. LAMB: They do, sir.

18 HEARING OFFICER KRAMER: Gentlemen, please raise
19 your right hand. Whereupon,

20 DAVID KRAUSS, DENNIS SKEELS, JOSEPH SCHNELL
21 were called as witnesses herein and, having been first
22 duly sworn, were examined and testified as follows:

23 HEARING OFFICER KRAMER: Okay. If each of you
24 could state your name and then spell your name for our
25 court reporter.

1 DR. KRAUSS: My name is David Krauss. Last name
2 is K-r-a-u-s-s.

3 MR. SKEELS: Dennis Skeels. Last name is spelled
4 S-k-e-e-l-s.

5 MR. SCHNELL: Joseph Schnell. Last name is
6 S-c-h-n-e-l-l.

7 HEARING OFFICER KRAMER: Go ahead, Mr. Lamb.

8 DIRECT EXAMINATION

9 MR. LAMB: Okay. If we could start with
10 Mr. Schnell.

11 Sir, you are presently manager special projects
12 signal BNSF; is that correct?

13 MR. SCHNELL: That's correct.

14 MR. LAMB: And you've attached to CV to your
15 testimony?

16 MR. SCHNELL: Yes, I have.

17 MR. LAMB: And that testimony was submitted
18 yesterday, August 17th, 2010?

19 MR. SCHNELL: Correct.

20 MR. LAMB: And is that testimony true and correct
21 to the best of your knowledge?

22 MR. SCHNELL: Yes, it is.

23 MR. LAMB: All right. Could you please outline
24 for the commission, kind of your background and training
25 and experience in signal?

1 MR. SCHNELL: Certainly. My background
2 education, I have a electrical engineering degree. And in
3 signal I've worked in the construction area and I've also
4 been the supervisor over several different territories
5 super advising the people who do the construction and
6 maintenance over the signal system.

7 MR. LAMB: Now, Mr. Skeels, you are presently the
8 manager signals California division, BNSF?

9 MR. SKEELS: That is correct.

10 MR. LAMB: And you have had testimony prepared
11 and you've submitted as of yesterday, August 17th, 2010.

12 MR. SKEELS: That is correct.

13 MR. LAMB: And is it true and correct to the best
14 of your knowledge and ability?

15 MR. SKEELS: Yes, it is.

16 MR. LAMB: And can you outline for the commission
17 briefly what your experience is?

18 MR. SKEELS: Okay. 26 years with the BNSF. 24
19 of them in the signal department. I've held various
20 positions within the signal department from construction
21 supervisor to general construction supervisor to manager
22 of signals, which I currently hold in the State of
23 California. I'm department head in my department for the
24 State of California.

25 MR. LAMB: And are you familiar with the signals

1 that are in place along the area that is proposed to be
2 the Calico Solar Project?

3 MR. SKEELS: Yes, I am.

4 MR. LAMB: And did you attach to your testimony
5 what is referred to as a track chart?

6 MR. SKEELS: Yes, I did.

7 MR. LAMB: And what does a track chart show,
8 please?

9 MR. SKEELS: It shows multiple track geometry, it
10 shows signal location, crossing location, gradient, speed
11 of track through the area, the track profile itself, to
12 name a few.

13 MR. LAMB: Okay. Dr. Krauss, you are the same
14 David Krauss that submitted his sworn testimony yesterday,
15 August 17th, also, right?

16 DR. KRAUSS: That's correct.

17 MR. LAMB: Have you had an opportunity to review
18 it?

19 DR. KRAUSS: Yes.

20 MR. LAMB: And your CV is attached to that?

21 DR. KRAUSS: I believe it is.

22 MR. LAMB: And is your testimony true and correct
23 to the best of your ability?

24 DR. KRAUSS: Yes, it is.

25 MR. LAMB: Can you please outline for the

1 commission your background, training, and experience?

2 DR. KRAUSS: Sure. I have a bachelor's degree in
3 fire psychology and cognitive science from the university
4 of Michigan, and a master and Ph.D. in psychology, majored
5 in cognitive neuroscience from UCLA. Since graduate
6 school I've worked at a company called Exponent in the
7 human factors practice where I do consulting work
8 primarily associated with visual perception and the
9 effects of visual conditions on human behavior and human
10 perception.

11 MR. LAMB: And can you explain to the commission
12 what cognitive neuroscience is, please?

13 DR. KRAUSS: Yes. Cognitive neuroscience is
14 really the interaction of the brain and human behavior and
15 human perception. So sort of link between the
16 physiological and the brain and the eye and what we
17 experience.

18 MR. LAMB: We would offer these three witnesses
19 and Exhibits 1203, 1204, and 1205. We understand that
20 it's been confirmed that those were actually all received
21 yesterday.

22 HEARING OFFICER KRAMER: By some of the parties.

23 MR. LAMB: Oh, I thought that the staff said that
24 they did get them.

25 MS. HOLMES: We haven't been able to confirm

1 that. If they did come in last night, we won't object,
2 but we haven't been able to confirm that, so --

3 HEARING OFFICER KRAMER: I think for purposes of
4 today's discussion, if they could give a brief summary of
5 their testimony, that --

6 MR. LAMB: Well, we intend to do that, but we
7 want for the record 1203, 1204, and 1205 to be admitted.

8 HEARING OFFICER KRAMER: Well, I thought we were
9 going to wait until --

10 MS. HOLMES: Right, I think that makes the most
11 amount of sense. Have them go forward and give their
12 direct testimony, and if it turns out that we were not
13 served -- and I don't see any record of it on my PDA, but
14 I could be mistaken, then we would later decide whether or
15 not we would need to conduct additional cross-examination
16 after reading the testimony. But it may be that even if
17 the event that we didn't receive them, we wouldn't need to
18 do that.

19 MR. LAMB: Well --

20 HEARING OFFICER KRAMER: No, he's talk about just
21 entering -- accepting them into the record.

22 MR. LAMB: Right.

23 HEARING OFFICER KRAMER: And I -- I thought we
24 were going to do all of that work in one sort of mass
25 event at the conclusion of the hearing. So if you don't

1 mind waiting until then, rather than piecemealing that.

2 MR. LAMB: All right. Mr. Schnell, can you
3 explain to the commission essentially what BNSF does in
4 the particular area that is involved out here that's going
5 to be where the Calico Solar Project is going to go?

6 MR. SCHNELL: Yeah, sure. Basically we have a
7 double main line running through the area where the solar
8 plant is going to be located. We run approximately 80
9 trains a day, mostly intermodal transconnecting the west
10 coast, specifically the California ports to the rest of
11 the country. And, you know, basically we -- we -- I think
12 it's somewhere in the neighborhood of 40 percent of all
13 the import/exports come through the rail out of
14 California.

15 MR. LAMB: Okay, 40 percent of the imports and
16 exports that go where, sir?

17 MR. SCHNELL: That go to the ports here in
18 California, to and from, from California to the rest of
19 the United States.

20 MR. LAMB: 40 percent?

21 MR. SCHNELL: In the neighborhood, it's not an
22 exact number.

23 MR. LAMB: Okay. Now, how long has that line
24 been this operation?

25 MR. SCHNELL: Well, we, along with our

1 predecessor railroads have been operating through there
2 for over a hundred years.

3 MR. LAMB: Okay. In your testimony you say BNSF
4 must continue to maintain sole and independent discretion
5 to ensure its rail operations are safe and efficient. Can
6 you explain that?

7 MR. SCHNELL: Yeah, absolutely. Our signal
8 system, which is what we're mainly concerned with here, is
9 our safety system, that's how we're able to run so many
10 trains through that area. And we, being the BNSF, are the
11 only ones that know all the factors that come in to, you
12 know, our train lengths, speeds, curvature, all those
13 things, and so we're really the only ones that can make a
14 determination whether or not our signal system is safe and
15 we just cannot afford to have outside entities dictating
16 to us how we're going to signal, because they just don't
17 understand how the signal system works and how they can
18 make it safe.

19 MR. LAMB: Okay. There's been some testimony
20 today, and you've heard it, about switch signals?

21 MR. SCHNELL: Yeah.

22 MR. LAMB: Are there any switch signals in this
23 area?

24 MR. SCHNELL: No, we do not have any dwarf
25 switching, some of the dwarf signals, the ground signals

1 that were being referred to earlier. There are none in
2 the area.

3 MR. LAMB: All right. And why are signals
4 critical safety features to the railroad?

5 MR. SCHNELL: The signal, the area in front of a
6 signal is what we call a block. That signal determines
7 whether or not that block is safe to go into. It will let
8 the train know if there's something in that block or
9 something in the block ahead so another train or
10 something, it will let them know if switches are open and
11 they can't traverse, let them know if there's a broken
12 rail, anything of that nature.

13 MR. LAMB: And what happens if the engineer blows
14 a signal, misses a signal?

15 MR. SCHNELL: Well, it depends on what's ahead of
16 that signal. Obviously there's always the potential for
17 catastrophic failure. We could run into another train, we
18 could derail on a broken rail, we could run through a
19 switch and derail on the switch, take out both main lines
20 and bottom line is people could get killed.

21 MR. LAMB: Now, are you aware of whether or not
22 there is any federal regulations or oversight that require
23 BNSF to maintain visual contact with signals?

24 MR. SCHNELL: Yeah, absolutely. We are required
25 to maintain visual contact with our signals to run the

1 speeds that we do. If you can not maintain visual contact
2 with the signal, we're forced to stop the trains.

3 MR. LAMB: There's a reference in your testimony
4 to the BNSF General Code of Operating Rule 6.23. Can you
5 explain to the commission what that is, sir?

6 MR. SCHNELL: Yeah, the GCOR 6.23 has to do
7 with -- with what -- our procedure basically for if we
8 need to stop a train, if you can't maintain visual contact
9 or if you see -- if the signal appears to be white or if
10 it appears to be multiple white lights around the signal,
11 then they are forced -- the engineer is forced to stop the
12 train, an emergency application, if necessary, which means
13 full application of the brakes, all the wheels will lock
14 up, and that's where we have a great potential to derail.

15 And then with that, after the train's been
16 stopped, we have to stop all the trains in the area and
17 then the train and the track physically has to be
18 observed, the entire thing, both sides, all the way around
19 before we can start again.

20 MR. LAMB: Okay. And what impact does that have
21 on interstate commerce in particular the goods and
22 materials that are coming from the ports?

23 MR. SCHNELL: Well, like I said, we run about 80
24 trains a day, so you do the math, that's every few minutes
25 we're running a train through there. If we block up the

1 line, then it rolls all the way back to Los Angeles and we
2 can feel the impact all the way back to Chicago,
3 everything's going to be delayed accordingly, depending on
4 how long it takes to get that train moving again.

5 MR. LAMB: Now, have you had the opportunity to
6 review the supplemental staff assessment part two as is
7 pertains to traffic and transportation?

8 MR. SCHNELL: Yes, I have.

9 MR. LAMB: Specifically glare and glint?

10 MR. SCHNELL: Yes, I have.

11 MR. LAMB: Okay. And does that address BNSF's
12 concerns?

13 MR. SCHNELL: No, it doesn't.

14 MR. LAMB: Can you explain to the commission why
15 not.

16 MR. SCHNELL: Yeah. Basically as has been
17 outlined here before everyone, there has been no study
18 done specifically how this is going to impact our train
19 traffic, how these dishes and the potential glare issues
20 are going to impact our engineer's ability to see our
21 signals to make sure they're operating safely and within
22 our rules and federal guidelines.

23 MR. LAMB: Well, can't we just put the
24 SunCatchers up, you know, and then if there's a problem,
25 fix it later?

1 MR. SCHNELL: No, and I saw the part about the 30
2 days, and you know, making a change, but by then it's too
3 late. If we need to make a change, there's been a
4 problem, we've blown a signal, we've derailed a train,
5 we've done something. So making changes after the fact is
6 too late. And our main concern again is Dennis, and I,
7 we're specifically -- we're in the signal department, and
8 we're specifically to maintain a safe and efficient
9 operation of trains, and we can't go on opinions of well,
10 I think it's going to be okay, there's a possibility of a
11 chance. We just can't afford that because when you're
12 dealing with a train, again, when it happens, it's too
13 late. We don't have reaction time, we don't have, you
14 know, you can't swerve off the road, you can't just stop
15 the train.

16 MR. LAMB: Sir, you heard the testimony from
17 Mr. -- excuse me, from Dr. Ho earlier today, right?

18 MR. SCHNELL: Yes.

19 MR. LAMB: And you had the opportunity to be on a
20 phone call or two with Dr. Ho and Mr. Jewell and
21 Ms. McLean, correct?

22 MR. SCHNELL: Correct.

23 MR. LAMB: If I could ask, I think the applicant
24 has on the thumb drive these exhibits now, if we could put
25 up Mr. Schnell's testimony and go to Exhibit A. If you

1 could go down please, to page 4 of 4 of Exhibit A.

2 Well, first, let's go to Exhibit A if we could so
3 we can identify it.

4 Can you turn that?

5 Don't -- don't -- don't turn this one yet.

6 Do you recognize Exhibit A, Mr. Schnell?

7 MR. SCHNELL: Yes, I do.

8 MR. LAMB: And can you explain to the commission
9 what it is?

10 Are the series of e-mails that --

11 MR. SCHNELL: Oh yeah, yeah, yeah. This is the
12 e-mail stream we had, I think originally what we had
13 talked about was we were going to provide data to put into
14 the study for our railroad-specific application and then
15 in process of providing said data, we were stopped and
16 told that they would not be doing that study and that
17 these issues would be ironed out in a workshop.

18 MR. LAMB: Okay. Well, let's go to page 4 of
19 four of Exhibit A, if we could.

20 You see those highlighted areas? And if you can
21 see down below, it's signed James. Do you understand that
22 to be James Jewell, one of the authors of the Jewell
23 report that is Appendix A to the staff study?

24 MR. SCHNELL: Yes, I do.

25 MR. LAMB: Okay. And it says he's asking for the

1 following would be helpful, and he's asking for a number
2 of things. Do you see that?

3 MR. SCHNELL: Uh-huh.

4 MR. LAMB: Do you recall that conversation?

5 MR. SCHNELL: Yes, I do.

6 MR. LAMB: And he's asking for the height of the
7 signal poles, the height of the midpoint of the signal
8 above the track, a lot of technical specifications and
9 data, right?

10 MR. SCHNELL: Yes.

11 MR. LAMB: And did he explain to you that he
12 needed that in order to complete his study?

13 MR. SCHNELL: Yes. He -- after we had
14 discussions on doing -- doing a study relative
15 specifically to our train traffic, these are data points
16 that he came up with that he needed to plug into his model
17 so he could have a view of where our engineers are in
18 relative position to where they need to view the signal
19 and things of that nature.

20 MR. LAMB: Okay. If we could go back to page 2 0
21 four, if you'll look at the bottom part of this e-mail, I
22 don't know if you can scroll down, if that works that way.

23 (discussion beyond range of microphone.)

24 MR. LAMB: Okay. There you go. You see that
25 there's a number of technical specifications that are

1 provided. Is that information that you and others at BNSF
2 gathered for Mr. Jewell?

3 MR. SCHNELL: Yeah, that information was gathered
4 by me and Dennis's team to help make field measurements to
5 verify they're correct.

6 MR. LAMB: And it was transmitted to Mr. Jewell
7 in response to his request.

8 MR. SCHNELL: Yes, it was.

9 MR. LAMB: And that was for the purpose so that
10 Mr. Jewell could do his study, right?

11 MR. SCHNELL: That is correct.

12 MR. LAMB: Okay. If you'll go to page one of
13 four of Exhibit A.

14 And that's from Mr. Jewell to a lawyer in my
15 shop, right?

16 MR. SCHNELL: Yes.

17 MR. LAMB: And according to Mr. Jewell, he says,
18 "The commission staff, including me, will not work on this
19 further since there is a COC requiring collaboration on a
20 solution."

21 Do you see that?

22 MR. SCHNELL: Yes, I do.

23 MR. LAMB: Okay. And then it goes on to say,
24 "But there will be a workshop, and I will as they are
25 saying at the jamboree this week in Virginia, be prepared.

1 Thanks for all the data. I think I can help the workshop.
2 James."

3 MR. SCHNELL: Correct.

4 MR. LAMB: So is it your understanding that none
5 of the data that was provided was utilized in the report
6 that the staff is relying on?

7 MR. SCHNELL: That's been my understanding, yes.

8 MR. LAMB: And did Mr. Jewell tell you that that
9 data was important for his study?

10 MR. SCHNELL: Yes, he did. He said he needed
11 that data. We were scrambling there before the weekend so
12 he could plug it into his model.

13 MR. LAMB: And then there's a reference to a
14 workshop. Were there ever any workshops?

15 MR. SCHNELL: Not that I'm aware of.

16 MR. LAMB: Now, in the SSA part two at 11-31, it
17 says, and I'm quoting, "Staff reviewed the glint and glare
18 study and mitigation measures with BNSF Railway
19 representatives. The review included telephone
20 conversations with energy commission glint and glare
21 consultants to be sure BNSF's railway's concerns were
22 addressed."

23 Do you recall that?

24 MR. SCHNELL: I do.

25 MR. LAMB: Okay. And it's your testimony those

1 concerns were not addressed, right?

2 MR. SCHNELL: Yeah, they have not been addressed.

3 MR. LAMB: Were you ever provided with a draft
4 report?

5 MR. SCHNELL: No.

6 MR. LAMB: Okay. The conversations were they
7 general this nature?

8 MR. SCHNELL: Yeah, I mean, we didn't -- you
9 know, we basically were trying to voice our concerns and
10 the type of modeling that should be done.

11 MR. LAMB: Okay. Now, based on the general
12 nature of the discussions and the fact that no study was
13 performed, was there any way in your mind to have
14 meaningful discussions about this issue?

15 MR. SCHNELL: No.

16 MR. LAMB: Now, in your testimony, you say that
17 you were advised that the CEC was going to require
18 300-foot setback. Do you remember that?

19 MR. SCHNELL: That's correct.

20 MR. LAMB: Okay. And who told you that?

21 MR. SCHNELL: The CEC.

22 MR. LAMB: Do you remember who?

23 MR. SCHNELL: Oh, I can't remember her name.

24 MR. LAMB: Ms. McLean?

25 MR. SCHNELL: What's her first name?

1 MR. LAMB: Marie McLean?

2 MR. SCHNELL: Marie, that's correct.

3 MR. LAMB: Okay. And you also say a site
4 specific study on the effects of the SunCatchers glint and
5 glare on BNSF's safety operation signals that was going to
6 be funded by Calico Solar. That was your understanding,
7 right?

8 MR. SCHNELL: That was my understanding, correct.

9 MR. LAMB: And workshops were to be held, right?

10 MR. SCHNELL: Correct.

11 MR. LAMB: Now, have you had adequate time to
12 address all issues that are laid out in the supplemental
13 staff assessment or the Jewell report?

14 MR. SCHNELL: No.

15 MR. LAMB: Why not?

16 MR. SCHNELL: There's -- there's -- everything's
17 been kind of presented to us really quickly here. Things
18 just keep rolling out and there's just so many different
19 aspects of possibilities we've been talking about, you
20 know, with -- the different axes are going to be, off
21 axis positions, we can have, you know, depending on the
22 clouds and the time of day, and where we have potential to
23 build tracks, there's just far, far too many potentials
24 that have not been examined yet.

25 MR. LAMB: Okay. Now, I'm going to read into the

1 record the condition of certification that you reference
2 in your testimony, and it is as follows: "prior to the
3 first SunCatcher disc been mounted on a pedestal, a
4 site-specific glare/glint study shall be performed at
5 Calico Solar's expense to address the glare/glint issues
6 raised by BNSF with respect to the potential impact of the
7 proposed Calico Solar SunCatchers on BNSF rail operations.
8 The recommended mitigation measures shall be reviewed by
9 BNSF. If BNSF approves the recommended mitigation
10 measures, they will be implemented by Calico Solar at its
11 expense. The site-specific study shall commence
12 immediately upon BNSF's selection of the experts to
13 perform the study."

14 Do you recall that, sir?

15 MR. SCHNELL: I do.

16 MR. LAMB: Okay. And you heard Mr. Lindsley's
17 testimony that he thought that that was a reasonable
18 condition of certification, right?

19 MR. SCHNELL: I did.

20 MR. LAMB: Why do you think it's a reasonable
21 condition?

22 MR. SCHNELL: Well, I think it's reasonable
23 because we've been safely operating there for many, many
24 years, and we have to continue to be able to safely
25 operate trains through this area, and we cannot be

1 dictated to how we're going to run our signal system and
2 changes that should be made to our signal similar.

3 MR. LAMB: Okay. There's a reference, and maybe
4 you can -- I'll have Mr. Skeels talk about in more detail,
5 but there's a reference in your testimony to phantom
6 signals. Can you just explain to the commission what that
7 is?

8 MR. SCHNELL: Yeah. Phantom signals are, they
9 can be described in a number of ways, but basically it's
10 you're seeing something in the background that you
11 perceive as the signal. This comes in to where we're
12 getting these halo effects, our concern with the halo
13 effects. I know it's been addressed that they're a low
14 lumen, which they're low-intensity light, but that doesn't
15 change the fact that it can be perceived as a signal
16 again.

17 What I stated in the GCOR rule, if you see a
18 white light or multiple white lights, such as a halo off
19 of one of these SunCatchers, they're supposed to stop the
20 train if they can't perceive the actual signal from
21 those -- those phantom signals.

22 MR. LAMB: Okay. Mr. Schnell, you also refer to
23 a potential fun house effect. Can you explain to the
24 commission what that is?

25 MR. SCHNELL: Yeah. Basically it's like --

1 like -- I think it's been referenced to before in here,
2 but we've all walked into a fun house, we've all seen the
3 mirrors and the different lights and pretty soon we're
4 distracted and you can't perceive where you're at. And
5 while I know it seems like a dramatization, we're looking
6 at signals a thousand to 2000 feet away, so a low
7 intensity light compared to our signal, it's going to be
8 real tough to see when you have this grid, depending on
9 what time of day, depending on what the weather's like,
10 depending on which direction we're going, there's a great
11 potential, in my opinion, to have a real, real tough time
12 determining what the signal aspect is and whether or not
13 we need to stop that train, because we have to keep in
14 mind that we can't wait till we get closer because by then
15 it's too late, we're going to go past it.

16 MR. LAMB: Okay, Mr. Schnell you referred to
17 1,000 to 2000 feet to observe the signal.

18 MR. SCHNELL: Correct.

19 MR. LAMB: How much time does an engineer have to
20 react?

21 MR. SCHNELL: Well, in that 1,000 to 2000 foot,
22 it really depends on how fast the train is going, how big
23 the train is. If you have a -- say you have a double
24 stack, which are the intermodal trains we've all seen with
25 the two truck trailers stacked on top of each other, if

1 I've got a full-size train, you're going to take well over
2 a mile to stop. So you really have a few seconds to make
3 that determination whether or not you need to hit the
4 brakes.

5 Now, the problem with that is, like I said, we're
6 looking two blocks out. So this signal is supposed to
7 dictate what this signal's going to tell you, so if he has
8 a green or clear, go ahead at max authorized speed. He's
9 going to be coming through as fast as he's allowed to come
10 through. Well, if that next signal says red, that means
11 that -- or he perceives it to be red, or he can't tell
12 what it is, if it just looks like a white light and he has
13 to slam on the brakes from full speed with all that
14 tonnage behind him because to him, that means that a
15 problem came in after he passed that next block.

16 MR. LAMB: Okay. Mr. Schnell, so you're talking
17 about picking up a signal a thousand to 2000 feet out,
18 right?

19 MR. SCHNELL: Uh-huh.

20 MR. LAMB: And at least the way it's been
21 described to the project, for a corridor of several miles
22 there will be these SunCatchers arrayed for miles within a
23 few hundred feet of the track, right?

24 MR. SCHNELL: That's my understanding, yes.

25 MR. LAMB: Okay. Are you aware of any other

1 scenario anywhere in the United States where any train
2 goes through that, I called it a tunnel, but mirrors on
3 both sides?

4 MR. SCHNELL: No, I am certainly not aware of
5 that, and that's why we have a concern.

6 MR. LAMB: Okay. I don't have any further
7 questions of you. I'm sure there will be some
8 cross-examination. But I'd like to go to Mr. Skeels now.

9 Now, Mr. Skeels, there's been some discussion
10 about the importance of signals, and you've been working
11 in signals, I guess, 24, 26 years, right?

12 MR. SKEELS: About 24 years now.

13 MR. LAMB: Okay. Can you explain kind of from a
14 boots on the ground perspective, why these are so
15 important to the railroad?

16 MR. SKEELS: Well, signals govern movement, you
17 know, tell our train engineers, you know, what speed to
18 go, what to expect ahead of them, safety conditions of the
19 track you know, down the road. Basically we have
20 different aspects that mean different things to the train
21 engineer. We have the, you know, the yell lows, the
22 flashing yell lows, the greens, we have flashing reds, we
23 have reds. Without going into a whole lot of detail, all
24 these mean different things to the engineer on that train,
25 and they're all based off of the safety of the operation

1 of that train and what's ahead. Joe had mentioned some of
2 the case scenarios, there could be a train ahead, could be
3 a broken rail, could be a switched line against their
4 movement, which basically could cause a derailment
5 situation, a collision situation.

6 So basically the signal system is key for us as
7 far as the safety, and basically it allows us to move our
8 trains in excess of 49 miles an hour. You know, we have
9 to have a signal system in place or else we're limited to
10 49 mph. Again, it's all about safety, it's all the way we
11 operate our trains and operate them safely at speed.

12 MR. LAMB: Now, there was some reference earlier
13 to putting switches on the ground or on the floor. Is
14 that feasible?

15 MR. SKEELS: Are you referencing signals?

16 MR. LAMB: Yes. Did I say switches? I'm sorry,
17 signals.

18 MR. SKEELS: Signals. Yeah, basically there was
19 reference, I believe it was categorized as historical. We
20 call those signals that are low mounted to the ground
21 actually there's two terms for them, pot signals or dwarf
22 signals.

23 They are out on the railroad so historically,
24 that is a true statement. We are in the business of
25 getting rid of them. Basically they are all hard to

1 preview by the train crews. And historically, they have
2 been known for what we call red block violations; in other
3 words, a train getting by that signal on a good day by not
4 being able to observe the aspect of that signal.

5 So endlessly, we're getting them off the ground
6 and we're putting them up on masts and cantilevers or
7 bridges.

8 MR. LAMB: So they're not safe.

9 MR. SKEELS: They're not as safe as they should
10 be.

11 MR. LAMB: Okay. So that wouldn't be something
12 you'd do to make it safer.

13 MR. SKEELS: No, it's just the opposite.

14 MR. LAMB: Okay. Now, there was -- there was a
15 reference to a switch signal. Are there any switch
16 signals in the area?

17 MR. SKEELS: No, we don't have any switching
18 signals in that area.

19 MR. LAMB: Why is that?

20 MR. SKEELS: Basically that's a transcon main
21 line. Basically the only time you'll find switching
22 signals is in industry areas around yards, like we have at
23 our Hobart intermodal yard, San Bernardino, we'll have
24 switching signals. But they're only found around those
25 areas where you do a lot of switching such as yards and

1 intermodal yards and what have you, but not out on the
2 main line.

3 MR. LAMB: Okay. Mr. Skeels, you had already in
4 your sworn testimony that you didn't agree that BNSF's
5 concerns were addressed. And I want to go to a couple
6 specific areas in your testimony. If we could get
7 Mr. Skeel's testimony up, which should be Exhibit 1204,
8 and go to Exhibit A1.

9 I don't know if you can turn that or not.

10 All right, Mr. Skeels, there's been some
11 testimony about phantom signals. Can you explain to the
12 commission what that is?

13 MR. SKEELS: Okay. What we're looking at here is
14 what we call a three position or a color light signal, it
15 has three different lenses, very much like the traffic
16 signals. You see here, you've got a green, a yellow and a
17 red.

18 Basically a phantom signal is when a light source
19 other than the light source provided by the signal is
20 introduced into that signal and it creates a single aspect
21 that is better than is required at that situation.

22 Now, this particular signal that we're looking
23 at, you'll see the note this the left hand, with the red
24 light off. It's basically this signal at this particular
25 point in time is supposed to be red indicating to stop,

1 this is an absolute signal, train cannot go past that
2 signal unless getting permission from the dispatcher. So
3 a red means stop, just like it is in a traffic signal.

4 Endlessly, at this particular point in time
5 you'll see the time up in the right upper corner of
6 7:47 p.m. These signals are facing due west, and it was
7 in the setting sun, and the sun had actually got that
8 light source into the yellow bulb and had, you know, to
9 the train crews perspective and mine as well when I saw
10 it, it actually looked like this signal was yellow instead
11 of the red it needed to be. Now, that was with the red
12 light off, there's another photo where we actually have
13 the red bulb illuminated, and again, in either the prior
14 or the one after this. But endlessly, that light source
15 from the sun was introduced into that yellow bulb -- into
16 that yellow aspect, and actually made the signal look
17 yellow. And there's concern with that five percent of
18 light on the SunCatchers, that that five percent could
19 introduce itself into the signal system and give our
20 signal the more favorable aspect than what it should be.

21 MR. LAMB: Okay. If we could go to B one, which
22 is two slides down.

23 I think this is the one you referred to, the red
24 light is on?

25 MR. SKEELS: Yeah. This is where the red -- the

1 red lamp is lit, which would be the bottom aspect or the
2 bottom color there, and you can see that the yellow
3 overrides the red. The one previous to this actually
4 shows it better, a better aspect, the yellow bulb shining.
5 But basically, you know the yellow over rode the red.
6 Again, that was from the light introduced from the sun
7 into that aspect.

8 MR. LAMB: Okay. So that should be telling the
9 engineer to stop.

10 MR. SKEELS: Yes, it should be red and should be
11 telling the train to stop, engineer, that he can not move.

12 MR. LAMB: Now, if we can go to Exhibit C to
13 Skeels's testimony, the track chart. And if you could go
14 in three pages, you'll see the first page it will show
15 some -- there you go, if you can flip that.

16 This -- explain to the commission what this track
17 chart shows.

18 MR. SKEELS: This is what I referred to earlier
19 as, this has a lot of information on it. It actually
20 shows the track diagram there with the two solid lines
21 going about the middle page, left to right, right to left.
22 That is the profile of the track.

23 The arrows indicate signal locations. These are
24 intermediate signal locations. There's also two try
25 angles up there that indicates a hot box detector. Hot

1 box detector reads the temperature of the bearings on the
2 train. If we have a hot bearing, it warns the train that
3 he needs to set that car out, because we risk catastrophic
4 failure.

5 Again, the two lines that intersect the crossing
6 right above Hector, the word "Hector" there, that is the
7 Hector Road crossing, the at-grade crossing.

8 Very top of the page you'll see the number 7 10
9 through seven 15. That is the mile pose of the
10 subdivision. Of course right above it you see line
11 segment, that is the line segment assigned by the BNSF and
12 the FR- --

13 MR. LAMB: Dennis, hold on a second.

14 Can you point out where the signals are first?
15 Because the commissioners had asked where the signals
16 were.

17 MR. SKEELS: Okay. Well, there's a box down at
18 the very --

19 (Discussion beyond range of microphone.)

20 MR. LAMB: You can show exactly where they are,
21 right?

22 MR. SKEELS: Yeah. It's marked there as signals
23 in the box with the two arrows pointing to the signals
24 there, the intermediate signals.

25 MR. LAMB: Okay. And those are on either side of

1 a crossing?

2 MR. SKEELS: Yes, Hector Road crossing.

3 MR. LAMB: Now, up on the top there's -- shows
4 speed. Do you see that?

5 MR. SKEELS: Assume?

6 MR. LAMB: Speed, freight train speed?

7 MR. SKEELS: Yes.

8 MR. LAMB: Okay. Does that vary?

9 MR. SKEELS: Through this area, yes it does.

10 MR. LAMB: Why does it vary, sir?

11 MR. SKEELS: Basically because of the curvature
12 of the track. You know, when you start moving into
13 curves, depending on the size of the curve and the degree
14 of the curve, we have permanent speed restrictions on
15 those curves that only allows a train to travel through
16 that curve at that speed.

17 MR. LAMB: So the speed, the curve and the grade
18 are going to impact the visual line of sight of the
19 engineer; is that correct?

20 MR. SKEELS: Yeah, it will, speed, definitely
21 yes. And line of sight, curves definitely will inhibit
22 the viewing of a signal.

23 MR. LAMB: Okay. And then the next page, if we
24 being go to the next page, which is circled nine, that's
25 the next section of the track. So these would be the two

1 sections of the track that would go through the area
2 that's proposed to be the project, right?

3 MR. SKEELS: That's correct. This is the
4 easternmost part of the railroad, you know, of course the
5 left side of this is attached to the previous slide.

6 MR. LAMB: Okay. And there were a couple of
7 signals on the first slide. How many signals are here?

8 MR. SKEELS: As far as intermediates, I believe
9 we have one between the last slide and West Pisgah. And
10 then of course we have the control signal at West Pisgah
11 itself.

12 MR. LAMB: Okay. And is the train speed
13 different here?

14 MR. SKEELS: I believe we've dropped down in
15 speed because of the curvature of the track just to the
16 west of West Pisgah.

17 MR. LAMB: Okay. Now, there's a reference there
18 on the top right near where it says "train speed" to a
19 two-degree ten-minute curve. Can you tell us what that
20 is?

21 MR. SKEELS: What the two-minute --

22 MR. LAMB: Yes.

23 MR. SKEELS: Well basically that's the -- that's
24 the amount of curvature on the track.

25 MR. LAMB: Right.

1 MR. SKEELS: As you go up a number, you're 2.1,
2 2.2, you know, the steeper or the more curvature in that
3 track, so you know, a two-degree curve is a pretty good
4 size curve.

5 MR. LAMB: Okay. Now, Mr. Skeels, have you seen
6 any documents, maps, diagrams that show the location of
7 the signals that the applicant has -- is aware of?

8 MR. SKEELS: That the applicant has actually
9 transposed on to any of their maps?

10 MR. LAMB: Right.

11 MR. SKEELS: No, I have not.

12 MR. LAMB: Now, in relation to that two-degree,
13 ten-minute turn, okay, where is that in relation to where
14 the project starts, do you know?

15 MR. SKEELS: I believe it's on the -- would be
16 the railroad east, geographic east for that matter, end of
17 the project.

18 MR. LAMB: So traveling east to west, as you go
19 into what would be a bank of mirrors, there's going to be
20 a turn.

21 MR. SKEELS: That is correct, yes.

22 MR. LAMB: Dr. Krauss.

23 DR. KRAUSS: Yes.

24 HEARING OFFICER KRAMER: Can I ask you how long
25 you think you have with him, because I'm trying to time

1 the lunch break.

2 MR. LAMB: Probably ten or 15 minutes. It's up
3 to you.

4 HEARING OFFICER KRAMER: Let's take the break now
5 then.

6 MR. LAMB: Sure.

7 (Lunch recess.)

8 THE REPORTER: We are on the record.

9 HEARING OFFICER KRAMER: Okay. We're back from
10 lunch. I understand that the workshop was held and don't
11 know what happened, but we'll find out later. So,
12 Mr. Lamb, back to your witness.

13 MR. LAMB: Thank you. Dr. Krauss, in your sworn
14 testimony you refer to having a background in neuroscience
15 and specialized knowledge in human perception, cognition,
16 and reaction time, attention, effects of lighting. Can
17 you go into a little detail and explain that for the
18 commission, what that entails?

19 DR. KRAUSS: Sure. So a lot of what I did was
20 related to accident investigation, typically after the
21 fact, so if an accident occurs, I'm often the person that
22 one side or another will come to and ask me, sort of, why
23 did this occur, why did the person fail to see hazard "X",
24 hazard Y, things of that nature. And those questions
25 often involve both the perception component, which is a

1 lot of the issues we're talking about here, as well as
2 reaction time or response time. So the distances at which
3 a hazard might be perceivable, the time it might take a
4 person to respond, and the time it might actually take to
5 initiate a response and avoid running into a hazard,
6 folks.

7 MR. LAMB: How does that area of expertise
8 differ, for example, from Dr. Ho's, which I gather he's
9 got a Ph.D. in mechanical engineering.

10 DR. KRAUSS: My familiarity with Dr. Ho is
11 limited to reading a couple of his papers and hearing his
12 testimony today. But it strikes me that he's into more of
13 the engineering and the physics side of what we're dealing
14 with here, to which I would likely defer to somebody like
15 Dr. Ho on a lot of these issues. So for example, modeling
16 the SunCatcher, I have no issues with what he's done
17 there.

18 Where his expertise stops and mine picks up is
19 how the human might respond to that energy that's been
20 reflected off the SunCatcher and the types of both
21 physiological response as to how the eye might respond to
22 that as well as the higher level cognitive responses. So
23 if you're seeing that doesn't necessarily burn your retina
24 but may cause you to respond one way or another, it may
25 distract you, it may draw your attention, things like

1 that.

2 MR. LAMB: Okay. And are you familiar with the
3 ways in which to model that human response?

4 DR. KRAUSS: Modeling response is typically a
5 process where we rely on scientific literature so we can
6 look at various factors about where the stimulus occurs,
7 how intense that stimulus is, how many contrast there is,
8 how much flick customer there is.

9 All of these different factors have been studied
10 for decades, and the responses to things like that are
11 well known.

12 MR. LAMB: For example, one of the things that
13 came out in earlier testimony was some information that
14 Mr. Jewell had asked for regarding signal heights and
15 placement. Is that the type of information that you would
16 need to have to do a model?

17 DR. KRAUSS: Ultimately, yes.

18 MR. LAMB: Now, you took the opportunity to
19 review the supplemental staff assessment and the
20 associated study that's been referred to as the Jewell
21 report, right?

22 DR. KRAUSS: Yes.

23 MR. LAMB: You've drawn some conclusions based on
24 that, correct?

25 DR. KRAUSS: I have.

1 MR. LAMB: Okay. Can you explain to the
2 commission what those conclusions are?

3 DR. KRAUSS: So at a very high level, my
4 conclusions are that, I guess their conclusions are
5 somewhat unfounded specifically with respect to the
6 ability to mitigate the detectability of the signals
7 through the methods that they outlined, that is the LED
8 and the hood. There's really no foundation to make that
9 conclusion.

10 And there are really many other factors in
11 addition to just that one conclusion that have not yet
12 been addressed.

13 MR. LAMB: Okay. One of the things that the
14 supplemental staff assessment specifically part two
15 C.11-19 found was that the SunCatchers could pose a
16 significant risk to BNSF engineers and train crews to
17 include but not limited to temporary flash blindness which
18 would adversely affect the ability to see train signal
19 lights. Did you agree with that conclusion?

20 DR. KRAUSS: Yes, based on their analysis, yes.

21 MR. LAMB: On is there scientific support for
22 that?

23 DR. KRAUSS: I believe so.

24 MR. LAMB: Okay. And the second conclusion was
25 that train signals are significant to the operational

1 safety of the crews and trains. Did you agree with that
2 conclusion?

3 DR. KRAUSS: I did.

4 MR. LAMB: And is there support for that?

5 DR. KRAUSS: Yes. I would defer to the BNSF
6 experts on that.

7 MR. LAMB: And is there testimony that you heard
8 today that supports that?

9 DR. KRAUSS: There is.

10 MR. LAMB: Okay. From Mr. Skeels?

11 DR. KRAUSS: Yes.

12 MR. LAMB: And Mr. Schnell, right?

13 DR. KRAUSS: Correct.

14 MR. LAMB: And then the last conclusion that they
15 made that any escaping or itinerant glint and glare that
16 may affect the railroad engineer's ability to clearly and
17 accurately see signals is mitigable through shielding, LED
18 lights, or other means designed to increase the contrast
19 and intensity of the signal light. And the reference
20 there is to C.11-19. And do you agree with that?

21 DR. KRAUSS: I do not.

22 MR. LAMB: Okay. And that's in relation to the
23 mitigation issue, right?

24 DR. KRAUSS: Yes.

25 MR. LAMB: Have you had adequate time to review

1 the underlying data associated with the Jewell report?

2 DR. KRAUSS: It's -- the data has been presented
3 to me. I've looked at it, I have not done a thorough
4 analysis since I just got it yesterday.

5 MR. LAMB: Okay. What time did you get it
6 yesterday?

7 DR. KRAUSS: Sometime late afternoon. I want to
8 say maybe 4:00?

9 MR. LAMB: Okay. The supplemental staff
10 assessment Appendix A at A8 made a finding that
11 significant glare impacts, parens, temporary flash
12 blindness, close parens, would occur to any receptor
13 within 223 feet of any SunCatcher unit.

14 Do you recall that?

15 DR. KRAUSS: Yes.

16 MR. LAMB: And did Dr. Ho's work support that?

17 DR. KRAUSS: I believe it did.

18 MR. LAMB: Okay. In your opinion did Dr. Ho or
19 Mr. Jewell or Mr. Lindsley do any work to determine what
20 the cumulative effect would be?

21 DR. KRAUSS: No. It's my understanding they just
22 looked at one SunCatcher.

23 MR. LAMB: And why would that be important, to
24 look at the cumulative effect?

25 DR. KRAUSS: So there are actually two factors

1 that come into play when there are going to be thousands
2 of these present.

3 First is what we often refer to, it's more
4 technical than it needs to be, what we call spatial
5 summation. So if we have a single SunCatcher, you have
6 light from one SunCatcher hitting your eye. If you have
7 multiple within the field of view within one glance, so if
8 I orient my eyes to one location, and it's actually
9 picking up a hundred SunCatchers, there's the potential
10 that the light from all of those will interact and
11 potentially cause a greater amount of light to be
12 stimulating your eye at any given moment. So that's what
13 we call spatial summation.

14 There's also in this case, what we call temporal
15 summation, which is the fact that we have a dynamic
16 situation with a train passing through this area where you
17 may not be seeing, say, 5,000 of them in a single glance,
18 but as you're moving you may see 50, then 50, then 50.
19 And the way our photoreceptors in our eyes, so the neurons
20 in the back of our eyes work, is they will respond to one,
21 and then they'll start to recover, and if there's not
22 enough time for that receptor to fully recover to
23 baseline, it can get excited again, go up, come back down
24 a little bit, get excited again, come back up, and what we
25 can get over time is a cumulative effect where it's not

1 just the effect of a single -- a single SunCatcher, but in
2 fact a collection of multiple SunCatchers over time that
3 can have this temporal effect.

4 MR. LAMB: Okay. And did you find any analysis
5 or data to support the conclusion that was in the staff
6 report that these problems are mitigable?

7 DR. KRAUSS: I did not, no.

8 MR. LAMB: Okay. And as a scientist, how can you
9 make a determination whether something's mitigable or not
10 mitigable?

11 DR. KRAUSS: So in this case, in my opinion as a
12 scientist, what we have an effectively a testable
13 hypothesis. So we have put forward that we can have these
14 modern LEDs coupled with big hoods that might alleviate
15 this problem. That very well may be true. The point is
16 that now we just don't know whether that is true. I say
17 it's a testable hypothesis because this is something that
18 very easily could be the subject of an experiment that we
19 run, and Dr. Ho actually alluded to this earlier, where we
20 might actually go out into the field where some of these
21 may already exist, we can look at it against a backdrop of
22 some SunCatchers. Similarly, we can model this on a
23 computer and look at the configuration of where the
24 SunCatcher might be and study the effects of these based
25 on the software computer model.

1 MR. LAMB: Okay. And you heard Dr. Ho testify
2 that he thought it would be prudent to do a computer model
3 of the site-specific conditions before proceeding, right?

4 DR. KRAUSS: Yes.

5 MR. LAMB: And would you agree with that?

6 DR. KRAUSS: Absolutely.

7 MR. LAMB: Why is that?

8 DR. KRAUSS: So because this is such a
9 large-scale project, both from a logistic standpoint which
10 I'm not here to testify about, but really from a safety
11 standpoint, to go ahead and install all of these
12 SunCatchers prior to understanding what hazards they post
13 is really a potential problem. So the issue of whether
14 they're aligned or not is irrelevant, the point is the
15 SunCatchers themselves are the hazard. So really, the
16 only way, because of the scope of this project, the only
17 way really to examine this before installation is to model
18 it. So what we could do is in fact, effectively take a
19 3-D layout of the area, model that in software, identify
20 exactly where the SunCatchers are intended to be located.
21 Take the model, similar to what Dr. Ho has done, apply it
22 to each SunCatcher, and then look at the effects within
23 this 33-D space, look at the effects of glare and glint
24 and various other types of distractions that these may
25 cause.

1 MR. LAMB: Okay. And on pages six through eight
2 of your sworn testimony you list 12 different factors that
3 need to be considered. I want to go through these.

4 The first is the engineer's vantage point changes
5 with respect to the location of SunCatchers in the visual
6 field and the number of SunCatchers in his visual field as
7 the engineer travels along the right of way. What do you
8 mean by that?

9 DR. KRAUSS: So this is similar to what I alluded
10 to before, is that the model that has been created thus
11 far assumes effectively a static observer facing a single
12 SunCatcher. What we really don't understand is how
13 specifically an observer who is dynamically moving through
14 the environment, specifically raised up to the level of a
15 train engineer, how that person is going to interact with
16 this huge array of SunCatchers. So that's something that
17 really needs to be examined that goes several steps
18 further than the existing model.

19 MR. LAMB: Okay. Sir, the second factor that you
20 identified was the magnitude of glare may be affected by
21 the geometry of track, the changes in elevation, and the
22 direction of travel. What did you mean by that?

23 DR. KRAUSS: So, again this relates to the
24 dynamic nature of the area. We have not only is the train
25 moving, but the train is potentially going uphill or

1 downhill, it's going around curves, and it's traveling
2 east or west. So all of those things are also going to of
3 course, have an effect on that engineer's viewpoint,
4 potentially how that engineer interacts with the array.

5 MR. LAMB: And that changes the angle that the
6 engineer perceives the glint or glare from, right?

7 DR. KRAUSS: Exactly. Yes.

8 MR. LAMB: Okay. And we know from Mr. Skeels's
9 testimony that the trains travel at different rates of
10 speed through this area, right?

11 DR. KRAUSS: That's my understanding.

12 MR. LAMB: And that the track is curved and it
13 changes in elevation, right?

14 DR. KRAUSS: Correct.

15 MR. LAMB: And do we know whether the actual
16 project site changes in elevation?

17 DR. KRAUSS: I believe it does, yes.

18 MR. LAMB: It's a three-degree slope upslope,
19 right?

20 DR. KRAUSS: I believe that's the number that
21 I've encountered.

22 MR. LAMB: Okay. The third factor that you
23 identified was the pattern of glare may have a
24 differential effect on engineers depending on the time of
25 day. What did you mean by that, sir?

1 DR. KRAUSS: Right, so this is related to what I
2 was saying on the last point which is the angle not only
3 much the engineer related to the array is going to change,
4 but the angle of the sun relative to array is going to
5 change. So when the sun is lower in the sky, it's going
6 to have a shallower angle of course, than when the sun's
7 high in the sky.

8 So again, exactly how that interacts with these
9 other factors such as the geometry and the position of the
10 engineer, all that could interact as well.

11 MR. LAMB: And then the next factor that you
12 identified was the pattern of glare may have a
13 differential effect depending on the time of year. What
14 do you mean by that?

15 DR. KRAUSS: Same point. So the sun position in
16 the sky, in addition to changing with the time of day, it
17 changes with the time of year. So we know that on June
18 21st at noon the sun is directly overhead, and throughout
19 other time of the noon the sun peaks at a slightly lower
20 altitude. So the time of day and time of year effectively
21 have the same impact on the glare angle.

22 MR. LAMB: And to date those factors have not
23 been analyzed, right?

24 DR. KRAUSS: That's correct.

25 MR. LAMB: Okay. The next factor that you list

1 is the -- there may also exist a level of glare that
2 engineers may experience as a result of SunCatchers. It
3 does not rise to a level that would induce temporary flash
4 blindness as measured by the Jewell report, but
5 nonetheless causes discomfort which makes it difficult to
6 focus on the direction of the SunCatchers.

7 What are you referring to there, sir?

8 DR. KRAUSS: So the existing report talks about
9 flash blindness, which is effectively a physiological
10 effect on your retina that prevents you from seeing for up
11 to several seconds after exposure to a really bright
12 light.

13 While that's a really important thing to know and
14 identifying that threshold is very critical, lower light
15 levels can still have a potentially detrimental effect to
16 engineers. So the presence of flashing light can cause
17 all sorts of -- I don't want to say secondary, but less
18 serious, don't necessarily cause blindness, but may cause
19 discomfort. So we heard testimony earlier from Dr. Ho
20 about seeing the reflection in the rear view window of the
21 car in front of you. I think we've all probably
22 experienced this, where it doesn't necessarily cause flash
23 blindness, but you look up, and you see it, and it's
24 really uncomfortable, so what you do is you avert you
25 eyes, you start driving and you look a little down and to

1 the left and/or down and to the right so you don't look
2 there. If these kinds of effects are occurring in a
3 location that's critical to where that engineer needs to
4 look and that engineer is tempted not to look in that
5 location, there are potential negative consequences that
6 could occur.

7 MR. LAMB: Is this what he was referring to when
8 he was talking about halo effect and veiling?

9 DR. KRAUSS: It could be. Again, these are
10 things that we need to look at. But the halo effect
11 certainly is one source of bright light. Also in the
12 reports they've shown other sources of glare actually
13 coming directly off the collector, the collector itself.
14 So while like Dr. Ho said, they may not reach this
15 hazardous level of illumination, it may reach a point such
16 that it's very uncomfortable to look at and may be very
17 unpleasant.

18 MR. LAMB: And Dr. Ho made analogy about a
19 motorist viewing whatever it was, whether it was the
20 situation involved with the flash or the halo effect, and
21 talking about the time that that motorist would have to
22 react so that he wouldn't or she wouldn't get in an
23 accident.

24 Do you recall that testimony?

25 DR. KRAUSS: I do.

1 MR. LAMB: Is there a difference between
2 analyzing that for a motorist and someone who's an
3 engineer traveling on a train at varying speeds from 65 to
4 90 miles an hour, the train may be two miles in length,
5 takes over a mile to stop, is there a different analysis
6 there?

7 DR. KRAUSS: Well, the numbers may be different,
8 it's really -- it's all the same principles at play. So
9 when we analyze a car accident, we're looking at these
10 exact issues. It's just that when we call stopping
11 distance is a lot shorter.

12 So in this case, for example, what I was just
13 talk about, if there's something that's unpleasant to look
14 at, let's say that this root beer can that's in front of
15 me is a signal and behind it are a bunch of SunCatchers
16 that are presenting, again, non-hazardous levels of glare,
17 but glare nonetheless, it's uncomfortable to look at. The
18 engineer looks up, doesn't quite get a good shot of the
19 signal, looks at it, looks away, says I'm going to wait
20 until I get a little closer, looks back, can't quite see
21 it yet and is kind of doing his best to get a look without
22 really focusing too long. That could cause a potential
23 one, two, three second delay in his overall response time.
24 If that signal is red, for example, that's going to delay
25 the time when he begins to stop. And at 90 miles an hour,

1 at three seconds, you're traveling about one 30, one 40
2 feet per second, so you've now gone about 400 feet in that
3 time when you were trying not to look at that light.

4 MR. LAMB: The sixth factor that you list talks
5 about mitigation measures including high contrast LED
6 lights or black shielding were suggesting to enhance the
7 conspicuity of railroad signals, that's the ability to see
8 them, right?

9 DR. KRAUSS: Correct.

10 MR. LAMB: The ability for engineers to perceive
11 these signals out of a potentially bright
12 dynamically-changing background has not been assessed to
13 understand any possible discomfort or delays in detection
14 that might arise out of the signal being viewed against a
15 field of SunCatchers.

16 What are you referring to there, sir?

17 DR. KRAUSS: Most of what I was referring to
18 there is what I just talked about. The other factors at a
19 higher level is that we have effectively what this would
20 create is, what, in cognitive psychology we refer to as
21 visual surge. And that's effectively trying to identify a
22 target out of a array of distracters. So if you can
23 imagine looking for this signal when you've got a bunch of
24 things sort of flickering in the background, and all of
25 those things are sort of grabbing your attention, that can

1 slow down your ability to perceive or identify the signal,
2 both the location and identify what it's telling you.

3 And again, that delay can have the same effects
4 that I was talking about before with the engineer
5 purposely averting his or her eyes.

6 MR. LAMB: Okay. Another issue that you
7 identified was a phantom signal. Can you explain that?

8 DR. KRAUSS: Right. The phantom signal I think
9 has been alluded to earlier. That was a concern brought
10 to my attention by the BNSF folks. Again, it's really
11 just a situation of ambiguity, potentially slowing down
12 response time because it's difficult to see what the
13 signal is and the concern again, this may prove false, but
14 the concern if there are potential stray light sources in
15 addition to the sun causing these effects.

16 MR. LAMB: And one of the other factors you list
17 was the effects of multiple viewing, indeed thousands of
18 SunCatchers simultaneously, rather than just one must be
19 analyzed to understand any cumulative glare effects that
20 my arise.

21 What did you mean by that, sir?

22 DR. KRAUSS: I think, without rehashing what I
23 talked about earlier, but that's what I referred to
24 earlier as spatial summation. So seeing many at once as
25 opposed to just a single one.

1 MR. LAMB: Okay. Your sworn testimony notes that
2 the Jewell report says the veiling effects and/or
3 distracting glare are clearly noted in the Jewell report,
4 and they're a phenomena that are expected to occur.

5 Do you remember that?

6 DR. KRAUSS: Yes.

7 MR. LAMB: Okay. So the Jewell report said it's
8 phenomena that's expected to occur, but it didn't measure
9 it or analyze it, right?

10 DR. KRAUSS: That's correct.

11 MR. LAMB: And did the supplemental staff
12 assessment suggest any measures to mitigate against that
13 specifically?

14 DR. KRAUSS: It did not.

15 MR. LAMB: Okay. Now, you've reviewed Trans 7,
16 right?

17 DR. KRAUSS: Yes.

18 MR. LAMB: And you understand that that's a
19 proposed condition of certification, right?

20 DR. KRAUSS: Yes.

21 MR. LAMB: All right. Do you have an opinion
22 regarding whether Trans 7 adequately addresses significant
23 safety issues regarding the impact of glint and glare on
24 train operators?

25 DR. KRAUSS: I don't believe it does.

1 MR. LAMB: Okay. Why not?

2 DR. KRAUSS: Again, for really the reasons that
3 we've discussed; I mean, all of these factors that are yet
4 to be addressed, I think the work that has been done thus
5 far, while reasonable, and I don't really have a problem
6 with it, it's really just the tip of the iceberg with
7 respect to what needs to be done to truly assess these
8 potential hazards.

9 MR. LAMB: Well, you talked about what needs to
10 be done. You've suggested and apparently Mr. Lindsley
11 agrees, that a computer model should be done that's site
12 specific, right?

13 DR. KRAUSS: Yes.

14 MR. LAMB: And you heard Dr. Ho also suggest that
15 in addition to that, he thought it would be prudent to do
16 a off-site replication, so not a computer model, but
17 literally, off the site, try to replicate the distance and
18 changes in elevation and angles.

19 Do you think that would be prudent also?

20 DR. KRAUSS: I think it would be. It's, again,
21 it's one step, I think it would be one extra tool, it's
22 still because we're not going to put 34 thousand of these
23 in another location of course, just to test it, but what
24 it might do is give some insight and provide some fidelity
25 to the model specifically with regards to issues like the

1 phantom signal. So is this something that we need to be
2 concerned about. Specifically with respect to how
3 difficult is it to extract both the location of the signal
4 and the message of the signal in the context of a bunch --
5 I shouldn't say a bunch, but potentially multiple
6 SunCatchers. It's always a good idea if you can when you
7 create a model of any sort, to have kind of a real-world
8 example as a back up both to test the fidelity of the
9 model after its created, and also to provide potential
10 inputs that you might overlook just trying to generate it
11 without having seen the real-world set up.

12 MR. LAMB: Okay. And in your sworn testimony you
13 refer to the scientific analysis performed in the Jewell
14 report is insufficient to support the conclusion about
15 mitigation or the separate or collective potential and as
16 yet untested mitigations measures suggested therein. What
17 are you referring to there?

18 DR. KRAUSS: So again, the mitigation measures
19 that were set forth again, this is referring to the signal
20 using the LEDs and having the larger hood, like we
21 established this morning that the Jewell report didn't
22 really address that to any extent. So that was a
23 conclusion that seemed to be somewhat independent of the
24 Jewell report and that all the Jewell report did was
25 establish really the threshold for temporary flash

1 blindness.

2 MR. LAMB: Well, the Jewell report didn't refer
3 to LED technology at all, did it?

4 DR. KRAUSS: It didn't.

5 MR. LAMB: Didn't refer to shields, right?

6 DR. KRAUSS: Correct.

7 MR. LAMB: Hooding?

8 DR. KRAUSS: Not as far as I recall.

9 MR. LAMB: Okay. So that was something that
10 staff came up with, but you didn't see any basis for that
11 in the Jewell report.

12 DR. KRAUSS: I did not.

13 MR. LAMB: And as a scientist, do you draw
14 conclusions if you don't have a scientific basis for it?

15 DR. KRAUSS: No.

16 MR. LAMB: Now, you did some demonstratives that
17 can illustrate some of these concepts, right, sir?

18 DR. KRAUSS: I did.

19 MR. LAMB: If I could ask the applicant to put up
20 Dr. Krauss's sworn testimony, it's Exhibit 1205.

21 Oh, could we go to Exhibit 1.

22 If you could rotate all the slides following
23 after that, they go the other way, and that's great.

24 Okay. Can you explain what this shows,
25 Dr. Krauss?

1 DR. KRAUSS: Yes, this is kind of a classic
2 display, a classic experiment in cognitive psychology. I
3 referred before to visual surge, and this is just to
4 illustrate this concept that here we have, and it's hard
5 to see the color on the slide, so I apologize, but there
6 are black and purple lines here. And the task is find the
7 upward tilted purple line. And of course, if you look at
8 this, you pretty much instantly see the target, so if this
9 were flashed, you'd be able to respond in significantly
10 less than a second, really instantaneously as to when
11 you're able to identify that.

12 If we go to the next slide, if I give you the
13 same task now and say find the same upward tilted purple
14 line, and now it takes significantly longer.

15 MR. LAMB: And how does that relate to this
16 specific instance regarding, instead of one SunCatcher, a
17 array of SunCatchers?

18 DR. KRAUSS: Right. So, again, well this isn't a
19 direct analogy to what we have here, because we're dealing
20 with issues of brightness and not slant and color and
21 these types of things. What this does illustrate is how
22 context really effects one's ability to extract meaningful
23 information from a visual scene.

24 And these same types of processes are going to be
25 occurring out at the site. So we're -- as I said before,

1 we're effectively looking for a target in a array of
2 distracters, the exact same thing that we're doing here.
3 This is just sort of a very simple way to illustrate that
4 concept.

5 MR. LAMB: Okay. So the more there are, the more
6 difficult it is.

7 DR. KRAUSS: Not necessarily the more, but kind
8 of the more -- the more the distracters pull your
9 attention away from the target, the more difficult it is.

10 MR. LAMB: Okay. If we could look at the next
11 exhibit.

12 This is the phantom signal issue?

13 DR. KRAUSS: Yeah. I think we have, BNSF folks
14 addressed this earlier. I just put up another example
15 here with perhaps a more familiar example of a stoplight.
16 It's very difficult to tell; it appears on the slide here
17 that the yellow light is illuminated. When I look at it
18 on my laptop, it's extremely difficult to tell which one
19 is in fact being illuminated here due to a low sun angle
20 on this particular signal.

21 MR. LAMB: Okay. And then the last slide,
22 Exhibit 4, can you explain that sir?

23 DR. KRAUSS: Sure. So this is illustrating this
24 concept of spatial summation, which I talked about before.
25 Effectively it's a very simple way to think about it. If

1 we set up three flashlights, point them all at one spot on
2 a wall, which you can sort of think of being your eye, and
3 then you can see second from the left is actually the text
4 is very small, but that's a light meter looking at that
5 spot on the wall. What we see is almost a perfect
6 summation. So if I take the amount of energy coming from
7 the flashlight on the left and then take the amount of
8 energy from the flashlight in the middle, and then I shine
9 both of those at the same time, you can pretty much add
10 that energy together, and that's how much energy is
11 striking your eye. Similarly if the bottom picture there,
12 if all three are on, the amount of energy that the light
13 meter picks up is effectively the sum of the three lights.
14 And the reason this is important is because if we're
15 looking at potential glare, again, even if individually at
16 relatively harmless levels, from a great distance, you
17 could have, again, harmless amounts of glare from say, 50
18 SunCatchers striking the same point on your eye. And we
19 could have an effect similar to this, where you have
20 individually relatively low levels of light summing over
21 space, hitting your eye in one point and potentially
22 causing more damage than might be predicted from modeling
23 a single SunCatcher in and of itself.

24 MR. LAMB: And that's what you'd hope to do from
25 doing the computer model?

1 DR. KRAUSS: It is, yes.

2 MR. LAMB: Okay. And the types of things that
3 Mr. Jewell was asking in terms of heights and elevations,
4 you'd need that not only for the signals but for the
5 actual SunCatchers, right?

6 DR. KRAUSS: Right, of course we'd need all the
7 parameters of the SunCatchers and a lot of that stuff has
8 been produced already.

9 MR. LAMB: Okay. Based on the testimony and the
10 other information that you've seen and heard today, is
11 there anything else that you'd like to add for the
12 commission?

13 DR. KRAUSS: I don't think so. I think we've
14 covered everything.

15 MR. LAMB: Okay.

16 I don't have any further questions, and we would
17 submit these witnesses for cross-examination.

18 HEARING OFFICER KRAMER: Applicant?

19 MS. FOLEY GANNON: No questions.

20 HEARING OFFICER KRAMER: Staff?

21 MR. ADAMS: Just a couple.

22 CROSS-EXAMINATION

23 MR. ADAMS: I guess this would be asked of
24 Mr. Schnell or Skeels.

25 Is there any back up safety system to the traffic

1 signals we've been talking about, and is there radio
2 contact, anything else if the lights fail?

3 MR. SKEELS: Well basically the signal system is
4 what the trains operate on. Of course we have radio
5 communications out there, but it's used for other forms
6 other than getting our trains down the track. And of
7 course in an emergency situation and in a signal failure
8 mode, then they have to move at what we call restricted
9 speed, not exceeding 20 miles per hour, watching out for a
10 whole gamut of things in front of them. But basically the
11 signal system is what it is. It's out there, it's sole
12 purpose is to get trains through. And if it fails,
13 everything goes down to restricted speed.

14 MR. ADAMS: I see. So you depend on the signal
15 system, if it fails, then you're having to traveling at 49
16 miles what hour.

17 MR. SKEELS: No, actually if it fails, we go to
18 restricted speed.

19 MR. SCHNELL: The reason for that is areas where
20 we don't have a signal system, we have a different type of
21 what we call authority or your right to be out on the
22 track. And when we're in the signal system, you can have
23 multiple trains in the same area. Well, when you don't
24 have a signal system, you have one train in that area. So
25 when the signal system doesn't work we don't have that

1 authority to back that up, so we have to slow them down.

2 MR. ADAMS: Okay. Well, what is restricted
3 speed? I thought someone said 49 miles an hour.

4 MR. SKEELS: No, 49 miles per hour is when you
5 running in a non-signalized territory and what Joe was
6 referring to was -- Mr. Schnell was referring to was a
7 track warrant, that train's permission to be on that piece
8 of rail. Now, on signalized territory, your authorization
9 to be on that track is that signal, and bottom line is if
10 that signal system isn't working, all trains are moving at
11 restricted speed, which is not to exceed 20 miles per
12 hour, watching out for men, equipment, cars, broken rails,
13 switches lined against you, amongst other things to watch
14 out for that are hazards ahead of you.

15 MR. SCHNELL: And certainly that 20 miles an hour
16 is a max speed, but in most cases you can't go that fast
17 because you've got to be watching out for these other
18 things. So we're crawling if the signals aren't working.

19 MR. ADAMS: Okay. And then I guess back to the
20 first question, the answer is no, there's really not a
21 back up to the visual signal.

22 MR. SKEELS: No.

23 MR. ADAMS: And lastly, be curious enough similar
24 issues in urban settings with, you know, glare off
25 building windows, restricted visibility around corners,

1 and how that's managed, whether you see parallels with
2 that.

3 MR. SKEELS: Well, when we design our signal
4 system, we have that set distance that we -- what we call
5 preset, which is around 1500 foot, which is the preferred
6 preview, so we -- when we build the signal system, we take
7 that into consideration and try to get the maximum amount
8 of preview to that signal as possible.

9 Yeah, this are situations of course where you do
10 have curves, but usually those curves are so steep -- you
11 know, in -- not gradient so much, but in curvature, that
12 you have reduced speed out there any how, you're not
13 running at 79 at a five-degree curve, you're reduced speed
14 to 30 or 40. So you know, that compensates for the
15 preview of the signal because the lack of the speed.

16 MR. SCHNELL: Yeah, and I think as far as glare
17 off buildings, the issue with buildings is they aren't
18 moving like these SunCatchers are, so you know --

19 MS. HOLMES: Could you repeat that, please?

20 MR. SCHNELL: With glare off of a building, the
21 buildings aren't moving like the SunCatchers are, so it's
22 a whole different animal, but I personally haven't -- me
23 personally, I haven't worked with any issues with glare of
24 buildings affecting our signals, so I'm not -- that's not
25 to say that they're not out there, but it would be handled

1 in a different manner as you know, we don't have a whole
2 field of potential glare moving all the time.

3 MR. ADAMS: Thank you.

4 ASSOCIATE MEMBER BYRON: You know, thank,
5 Ms. Holmes, if I may, because I'm going to need to attend
6 a 2:00 meeting.

7 Just a couple quick questions.

8 I believe this one is to Mr. Schnell. And
9 counsel was headed this direction, I'd just like a clearer
10 understanding.

11 Is this the only communications that you have
12 with the operator of trains is the visual lights as they
13 go down the rail?

14 MR. SCHNELL: Well, as --

15 ASSOCIATE MEMBER BYRON: It's just a yes or no
16 first, please.

17 MR. SCHNELL: No.

18 ASSOCIATE MEMBER BYRON: Okay. So I assume
19 there's other communications such as radio or something
20 else so they can be warned about a hazard down the track.

21 MR. SCHNELL: Yeah, we have radio communication.

22 ASSOCIATE MEMBER BYRON: Okay. And the other one
23 I think is directed towards the third witness, and forgive
24 me, I didn't write down your name, doctor.

25 Because of your background and where you work you

1 might be able to answer these questions, and/or maybe the
2 other witnesses. But I'd like to have some sort of sense
3 as to what are the major causes of rail accidents, and I
4 just was pondering some of these to myself; you know,
5 mechanical, operator error, switching errors, impeding the
6 right of way, damage to track, and then the phantom signal
7 which is the one that you indicated. Can you tell me
8 where that fits with regard to these other potential
9 causes of rail accidents?

10 DR. KRAUSS: Certainly not offhand, I mean,
11 that's something that I could research. And again, I
12 think that's --

13 ASSOCIATE MEMBER BYRON: We'll need it
14 immediately.

15 DR. KRAUSS: Yes.

16 ASSOCIATE MEMBER BYRON: Do you two other
17 gentlemen have any sense of where that fits with regard to
18 these other types of causes rail accidents?

19 MR. SKEELS: As far as phantom signal causing a
20 rail incident?

21 ASSOCIATE MEMBER BYRON: Yeah, that's the point
22 you're making here, is that the phantom signal can cause
23 trains to crash.

24 MR. SKEELS: That is correct. And the percentage
25 would be very low, but it doesn't matter what the

1 percentage is, all it takes is that one.

2 ASSOCIATE MEMBER BYRON: Matters to me.

3 Do you know where it fits with regard to the
4 others?

5 MR. SKEELS: Again, I repeat, it's very low on
6 the percentage ratio but all it takes is one. We cannot
7 sacrifice the safety of the system for even one.

8 HEARING OFFICER KRAMER: So to follow that
9 up -- well, just to keep the flow, you do take risks in
10 other places. I mean, you allow crossings and the gates
11 are up and cars can cross, and there's always a danger
12 that somebody's going to stall on the tracks, correct? So
13 I would think that's a more likely cause of accidents than
14 the phantom signal which you just professed you're
15 unwilling to accept any incidents as a --

16 MR. SKEELS: Well, rephrase the question as far
17 as identifying what your terminology for risk is.

18 HEARING OFFICER KRAMER: Well --

19 MR. SKEELS: You said at a highway grade
20 crossings?

21 HEARING OFFICER KRAMER: Yeah, where somebody --
22 you have gates there to warn people, but -- whether the
23 train is coming. Those can fail, for instance. I'll
24 change my example a little bit.

25 MR. SKEELS: The way our crossing warning devices

1 are designed, they fail safe in the down position.

2 HEARING OFFICER KRAMER: Okay. So they're
3 basically being held up, and as soon as the --

4 MR. SCHNELL: They're powered up, so if we lose
5 power for whatever reason, they go down.

6 MR. SKEELS: Gates go down, they fail in the down
7 position.

8 HEARING OFFICER KRAMER: Okay. The car though
9 stalls on there, that's -- is that a risk you just can't
10 do anything about, it stalls on the tracks as it's
11 crossing?

12 MR. SCHNELL: I guess I'm not following. If
13 you're asking if we prefer there are not grade crossings,
14 absolutely. We don't like grade crossings, we don't -- we
15 have an entire department dedicated to trying to get rid
16 of, close grade crossings where we don't need them. And I
17 certainly don't think Dennis or I would advocate to us
18 adding another risk and accepting it.

19 HEARING OFFICER KRAMER: Okay. That's probably
20 why you're -- you're trying to push this applicant into
21 having a bridge over the tracks for their day to day
22 access.

23 MR. SCHNELL: Absolutely.

24 HEARING OFFICER KRAMER: Okay.

25 MR. SCHNELL: Whenever a new crossing is proposed

1 by the state or the city or whoever, we always defer to
2 grade separation before anything else. We don't want
3 those risks, no. And we certainly, you know, do
4 everything we can to mitigate risks when -- we're not in
5 the business of accepting risk.

6 HEARING OFFICER KRAMER: Okay. Ms. Holmes, I
7 think I have a couple more, but they're slightly off that
8 topic, so you want to go ahead?

9 MS. HOLMES: I think they're largely follow up to
10 the questions I've heard so I'll keep them very brief.

11 CROSS-EXAMINATION

12 MS. HOLMES: Did you do an assessment of the
13 probability of an incident associated with the
14 installation of the SunCatchers?

15 MR. SKEELS: As far as what?

16 MS. HOLMES: The types of harm that you're
17 concerned about. Did you make an assessment of what the
18 probability of that occurring is?

19 MR. SKEELS: Of phantom signals, of the
20 glint/glare issue?

21 MS. HOLMES: Any of the -- any of the effects
22 that you are concerned about. Did you make an estimate or
23 an analysis of the probability of that occurring?

24 MR. SCHNELL: I guess to answer that, no, we
25 haven't. We have identified these as issues that have

1 occurred and caused accidents and we didn't put a label on
2 how often or what the probability is. We've identified it
3 as yes, this is an issue, and this could be adding this
4 risk to us with this solar plant being installed.

5 MS. HOLMES: And then secondly, I think there was
6 a response to Mr. Adams's question about trains being
7 exposed to glare in urban settings. And my understanding
8 of the response was that's different than the situation in
9 this case because of the fact that the glare sources in
10 those circumstances were stationary. Did I understand you
11 correctly?

12 MR. SCHNELL: That is one instance is how it's
13 different, yes.

14 MS. HOLMES: And did you hear the testimony
15 earlier this morning from the staff witnesses that
16 indicated that the effect would be similar to seeing the
17 sun reflected off of a car windshield or a car bumper?

18 MR. SCHNELL: Uh-huh.

19 MS. HOLMES: Are their places in the BNSF system
20 where your trains travel close to a roadway?

21 MR. SCHNELL: Certainly --

22 MS. HOLMES: Thank you.

23 MR. SCHNELL: -- But there's not the amount of
24 cars as we indicated with the multiple catchers.

25 MS. HOLMES: I think those are my questions.

1 HEARING OFFICER KRAMER: Okay. Commissioner
2 Eggert?

3 PRESIDING MEMBER EGGERT: I think, Hearing
4 Officer Kramer, maybe where you were going is if somebody
5 proposes to put in a new at grade crossing, it imposes a
6 new risk on the system and you have, I presume, various
7 design criteria that you apply to try to minimize that
8 risk. So depending on the flow rates, you would install,
9 you know, fail safe gates and other things of that sort.

10 MR. SKEELS: Well, bottom line is railroad
11 doesn't have the say of what goes in and what crossing.
12 That is actually the California Public Utilities
13 Commission that does that. They're the ones that go out
14 and analyze the risk per the crossing and they're the ones
15 that make the suggestions as to what type of device that
16 we install. That is not the railroad's call, that is the
17 California Public Utilities Commission's call.

18 PRESIDING MEMBER EGGERT: Okay. That's helpful.
19 So I guess maybe the point is that there are
20 things that get added to the system that increase the
21 level of risk. And that there are agencies such as the
22 utilities commission that have policies that try to
23 mitigate that risk by basically requiring certain aspects
24 of the design.

25 MR. SCHNELL: There are, and when we had those

1 things, we do studies and we do mitigation before they're
2 put in. I think our whole point to this is nobody in this
3 room can tell us what kind of effects this is going to
4 have, yea or nay, whether it's going to be an issue or
5 not. The potential has been identified that there may
6 potentially be risks, but there's been no study done, and
7 we're trying to propose mitigations before we know what
8 the problem is.

9 PRESIDING MEMBER EGGERT: So that leads me to my
10 next question. There's -- I guess, as I understand the
11 proposal that's on the table, there's a request for a more
12 detailed, more comprehensive analysis that would better
13 characterize the associated risks and impacts to the
14 operators of the rail line.

15 Do you have the set of conditions or criteria
16 that you would apply to characterizing that risk as being
17 reasonable? In other words, you're asking for approval
18 authority. Do you know what those conditions are that you
19 would apply as to whether or not you would approve a
20 particular proposal?

21 DR. KRAUSS: Well, I think I can jump in here
22 since I'm the one who is largely proposing the model.

23 A lot of this is going to depend on really the
24 output of the model. So as Dr. Ho said, if it turns out
25 that these SunCatchers are over 99 percent efficient and

1 we have very little stray light, again, I would
2 hypothesize at this point that, in fact, there likely will
3 not be an issue.

4 However, if it's five percent and we do -- and we
5 set them back, say, 300 feet, and we do get some of these,
6 like I said, some of this summing over space, some of the
7 summing over time as the train moves through the space,
8 then it might be something as simple as, you know, I think
9 this would be ameliorated enough if we move back a hundred
10 feet.

11 And the effects of things like that might be, by
12 doing that you're lowering both the amount of light
13 entering the eye, you're lowering the effectively the size
14 of kind of the bright stimulus, and it may be something
15 along those lines where it's not going to be -- in the end
16 what you're going to get out isn't going to be, okay,
17 there is glare level 9.6, that means there is a three
18 percent chance of an accident. The model will never come
19 to that level of resolution only because we're real at the
20 whim of the behavior of the engineer.

21 What it's going to come down to is referring to
22 the scientific literature, evaluating the likelihood that
23 these kinds of things are going to attract attention,
24 potentially cause flash blindness if we do have the
25 summation issues, and that would be a distance issue, and

1 then again, really just assessing what kinds of mitigation
2 techniques we can apply to alleviate these. And I think a
3 lot of that will be borne out of the data.

4 PRESIDING MEMBER EGGERT: Okay. That's all my
5 questions. Thank you.

6 HEARING OFFICER KRAMER: Any other party have
7 questions?

8 Any redirect?

9 MR. LAMB: Briefly, yes.

10 REDIRECT EXAMINATION

11 MR. LAMB: There was some question about crossing
12 grades. Has there been an effort by BNSF to close down
13 crossings?

14 MR. SKEELS: A huge effort.

15 MR. LAMB: Okay. Can you explain to the
16 commission about that effort and why there's that effort?

17 MR. SKEELS: Basically BNSF has, and as Joe
18 alluded to, that we have an organization within the BNSF
19 that is specifically designed to go out there and identify
20 and close at grade crossings. The number is in the
21 thousands across our system right now. We're actively
22 involved here in the State of California in the southern
23 California region with a five year plan of grade
24 separation of multiple crossings, all funded by different
25 state -- you know, partially funded by the BNSF as a

1 co-sponsor, but we are actively seeking closures whenever
2 and wherever we can get them.

3 MR. LAMB: There were some questions asked by
4 staff counsel Mr. Schnell and Mr. Skeels about whether or
5 not there had been any assessment of the probability of
6 the occurrence of an accident caused by phantom signals or
7 glare and glint specifically from the SunCatchers. Do you
8 remember that, Dr. Krauss?

9 DR. KRAUSS: Yes.

10 MR. LAMB: Is there any way to do that assessment
11 of probability without first doing the study you've asked
12 for?

13 DR. KRAUSS: I don't believe there is.

14 MR. LAMB: Okay. Now, there was a question asked
15 and a response by Mr. Schnell where he talked about
16 proposing mitigation measures before we really knew what
17 the problem was. That's what he saw in layman's terms.

18 DR. KRAUSS: Yes.

19 MR. LAMB: What the staff was doing.

20 As a scientist do you ever do that?

21 DR. KRAUSS: No. Again, it's really at this
22 point we have a hypothesis, we just need test it and see
23 if, in this case, if the hypothesis is the proposed
24 mitigation. And it just needs to be tested.

25 MR. LAMB: No further questions.

1 HEARING OFFICER KRAMER: Okay. I had one more
2 question, it may be a couple.

3 It had to do early on in your testimony one of
4 you talked about the need for the train operator to be in
5 visual contact with the signals. Is that continuous
6 contact? So in order, does a train operator always have
7 to be able to see a signal, or are there times along the
8 route where there's no signal visible to them?

9 MR. SKEELS: He has to be -- you know, of course,
10 there is going to be times when there is not going to be a
11 signal visible, because we have, you know, the way the
12 signals are spaced, you know, anywhere from a mile to a
13 mile and a half depending on breaking distance, gradient,
14 what have you.

15 But when he is approaching a signal and he knows
16 where those signals are supposed to be he is looking for
17 those signals and he is reacting to the aspect of that
18 signal. So once he has that signal in view he has to
19 remain in contact, visual contact with that signal for any
20 changes in that aspect.

21 MR. SCHNELL: Is that distance is what we
22 referred to as our preview distance.

23 MR. SKEELS: Preview distance, correct.

24 So you know, in other words, if he's moving on
25 say, a green signal, which means he can move the district

1 speed, whatever that looks like, 70 or 79, 60, depending
2 on what the speed of the track is, he's consistently --
3 once he has that signal in his view, he needs to be
4 watching that signal for any changes, i.e., down grades
5 that's going to require him to apply brakes and if he's
6 going to have to apply brakes, how much brakes he's going
7 to have to apply depending on where he has to have his
8 train at by that signal or the signal beyond it. You
9 know, because we have a progression of signals in a tell
10 that engineer, okay, you need to be at this speed, but
11 prepare to pass the next signal not exceeding this speed.
12 So he's consistently, maneuvering his train, breaking,
13 accelerating, depending on signal aspect.

14 So he has to be consistently watching that signal
15 once it has appeared in his sight for any changes.

16 HEARING OFFICER KRAMER: So are the signals given
17 on the assumption that the engineer observes them at the
18 preview distance or at a distance -- first observes them
19 at a preview distance or at a point much closer to the
20 signal?

21 MR. SKEELS: Are you referring to what that
22 signal aspect is?

23 MR. SCHNELL: Are you referring to like where do
24 we design it for him to see it?

25 HEARING OFFICER KRAMER: Yeah.

1 MR. SCHNELL: That's the preview distance.

2 HEARING OFFICER KRAMER: In other words, you give
3 a signal, and are you assuming that that signal is most
4 informative to him if he sees it right away or as long as
5 he sees it before he passes it?

6 MR. SCHNELL: Well, no, it's based off of preview
7 distance. So if he has -- if he has a clear block or a
8 green signal on the signal, he passes that one; say the
9 next one's yellow, he's got to be down to a certain speed
10 before he passes that signal. So the closer he gets the
11 less time he has to react to get down to that speed.

12 HEARING OFFICER KRAMER: Okay. So what happens
13 if it were foggy? I don't imagine it's a big problem out
14 there, but in theory.

15 MR. SCHNELL: If it were foggy?

16 HEARING OFFICER KRAMER: Right. So viewing
17 distances are greatly compromised.

18 MR. SCHNELL: Well then they'll put out a what's
19 called a form C, and the trains have to slow down.

20 HEARING OFFICER KRAMER: Okay. Any other
21 questions from --

22 MR. LAMB: No, sir.

23 HEARING OFFICER KRAMER: Did any other party have
24 any witnesses on the glint and glare topic?

25 Staff want to have any redirect of its witnesses

1 in rebuttal?

2 MR. ADAMS: I don't believe so. Dr. Ho is not on
3 at the moment.

4 HEARING OFFICER KRAMER: Okay. Then I think that
5 takes care of the glint and glare category.

6 Changes to Visual 3. Somebody remind we me where
7 we stand.

8 MS. HOLMES: Staff testified this morning that
9 the change in setback to 223 feet was acceptable in light
10 of the testimony by Dr. Ho and Mr. Lindsley.

11 HEARING OFFICER KRAMER: Oh, that's right. Thank
12 you. Yes.

13 Okay. Let's move on them to the combined topic
14 of land use and traffic and transportation addressing
15 Mr. Jackson's issue of partial access to those parcels
16 that are in the not a part area.

17 Mr. Jackson, if you prefer -- I know you wanted
18 to make an opening statement of some sort to -- at some
19 point. If you want to do that to start, that's fine. You
20 had suggested that it might take 30 minutes, and I think I
21 sent you an e-mail yesterday suggesting that you not take
22 nearly that amount of time because unless you're
23 testifying and providing us with factual information, you
24 know, statements that are in the nature of argument,
25 unless we need -- you know, I think we do need to know a

1 little bit about your position to understand the
2 testimony, but much of that could be -- could be saved for
3 your brief where you'll have the opportunity to explain
4 how the facts should be read by the commission.

5 So do you want to go ahead, Mr. Jackson?

6 MR. JACKSON: No, I'll pass. I'll let the
7 applicant go first and then I'll -- in order to move this
8 along, I'll just save my comments to the end, if I might.

9 And maybe they will be taken care of in the
10 cross.

11 HEARING OFFICER KRAMER: Okay. Are you still
12 interested in pursuing your request to strike those two
13 exhibits?

14 MR. JACKSON: Definitely.

15 HEARING OFFICER KRAMER: Okay. And can you
16 remind me which two those were, so I can pull them up on
17 my computer?

18 MR. JACKSON: These were the applicant's most
19 recent change to the proposed alternative routes. They
20 were in the July 29th applicant's submittal of rebuttal
21 testimony.

22 HEARING OFFICER KRAMER: Okay. Can you give them
23 to us by exhibit number, and can you also speak up a
24 little bit.

25 MR. JACKSON: 82B, as in boy.

1 HEARING OFFICER KRAMER: Okay. 82B. And was
2 that it?

3 MR. JACKSON: Yes, there's two figures, one is a
4 current public access route, and the other one is a
5 proposed public access route.

6 HEARING OFFICER KRAMER: And if you could
7 summarize for just a minute your argument that these
8 should be struck from the evidence.

9 MR. JACKSON: Okay. Based upon the brief I
10 submitted, I'm requesting that --

11 HEARING OFFICER KRAMER: You need to speak up.

12 MR. JACKSON: I'm requesting that the exhibits be
13 struck on the grounds that they're vague, inconclusive,
14 misleading. You know, on and on.

15 The primary issue is that these exhibits were
16 provided less than -- about three weeks ago, right, and
17 they show that the access, the public access to the
18 property is not going to be from historic route 66 or from
19 interstate 40. That the access to the private parcels and
20 Not a Part 1 will be from Newberry Springs or Ludlow.

21 Now, the applicant has not submitted any
22 environmental studies to determine what that impact will
23 have on not only the private property owners but on
24 biological resources. And my understanding although
25 shallow understanding of the California Environmental

1 Quality Act states that they have to do those
2 environmental studies.

3 And once those studies are done, they have to be
4 submitted for public comment and review.

5 Another issue is that in looking at this -- these
6 exhibits, there's four designations for the various
7 routes. The two of concern, there's one called the open
8 route and one's called the current public access route.
9 There is no description, definition or criteria to
10 indicate how those routes were designated.

11 In addition, the sources for those exhibits were
12 based upon aerials in 2005, based upon project boundaries
13 that was just done, and public access routes by the BLM.
14 In 2006, a recent court case, I believe it was the Center
15 for Biological Diversity versus the BLM, stated that the
16 public access -- excuse me, the open routes that came
17 after 1980 California Desert Conservation act are now
18 invalid. So the entire basis for these route designations
19 is antiquated, it's dated. More importantly, or just as
20 importantly, they're misleading.

21 In one case they show that the roads between
22 sections one and 36 is classified as undefined route. As
23 I pointed out in my brief, there is in fact an easement
24 for public access along that -- along Hector Road. Okay.
25 I can go on and on but I believe I provided enough grounds

1 for the committee to strike these two exhibits or the two
2 maps represented as Exhibit 82-B.

3 HEARING OFFICER KRAMER: The applicant, you want
4 to respond?

5 MS. FOLEY GANNON: Certainly. We're going to be
6 calling two witnesses, or we're going to be calling one
7 witness and there is a representative of the BLM which is
8 here to speak to some of the issues about the access and
9 the roads on federal land. We think that these exhibits
10 are good representations which will help that discussion,
11 and they certainly are open to cross-examination, but we
12 submit that they are appropriate to be admitted into the
13 evidence.

14 MR. JACKSON: I object to any BLM witnesses
15 testifying on this matter. As I pointed out in my
16 numerous statements, the BLM has withheld information,
17 right, regarding Hector Road, specifically as open routes.
18 They cannot, in my opinion, testify when they -- on a
19 matter where they prevent me and the other private
20 property owners from providing evidence on our behalf.

21 HEARING OFFICER KRAMER: Do you know that they
22 have particular documents or are you just speculating that
23 they have them?

24 MR. JACKSON: No. Sorry for interrupting.

25 HEARING OFFICER KRAMER: Go ahead.

1 MR. JACKSON: In this six, eight month battle to
2 get documents on Hector Road, I submitted a multi page
3 letter to my attorney identifying some of the documents
4 that they have. And in that letter I specifically
5 identified documents that they admitted having but
6 withheld from me. Of really crucial concern here and what
7 I'm trying to show you the significance of these
8 documents. Hector Road is classified as an open -- as a
9 designated open route under the California desert
10 conservation area plan. The BLM has provided statements
11 saying that I can use Hector Road to access my property.
12 Now, they're saying in this project, they will close
13 Hector route, essential depriving me of my right to use
14 that road to get to my property, essentially land locking
15 me. The evidence that will prove my point is that
16 Hector Road is identified as four numbers under the west
17 Mojave plan. All of those numbers are open routes. Those
18 numbers, in order to get a number, an open route
19 classification, you have to have a vehicle route
20 designation record of decision.

21 The BLM is withholding those decisions, those
22 records from me. I have information and belief that those
23 records will be based upon the decisions that state that
24 the reason why those routes were designated as open is
25 provide access to the private lands.

1 HEARING OFFICER KRAMER: Well, we're going to
2 overrule your request to strike these exhibits because
3 they are illustrative of points that the applicant and
4 testimony the applicant wants to provide. You are, of
5 course, free to cross-examine their witnesses and provide
6 your own evidence. I note that you have not provided any
7 documentary evidence for us here to look at, but what
8 you'll need to do is if you believe that these are wrong
9 in some way, you'll need to prove that either with your
10 own evidence or by cross-examining their witnesses.

11 MR. JACKSON: I did present evidence back in
12 March. I provided a 50-page document entitled "Patrick C.
13 Jackson's Status Report Number 5." And that document had
14 probably over a dozen exhibits showing Hector Road and how
15 it is a -- a designated open route under the California
16 desert area, desert conservation area plan. And in my
17 brief I provided information showing how it is also a --
18 I'll have to pause. Go ahead.

19 HEARING OFFICER KRAMER: Okay. Well, that's not
20 before us. Are you asking that we consider that as
21 evidence?

22 MR. JACKSON: It has been presented months ago.

23 HEARING OFFICER KRAMER: No, I guess you don't
24 understand our process.

25 You presented it as part of your status report.

1 But when you come to these hearings, everything that
2 you've sent to the commission prior to this point doesn't
3 automatically become evidence. That would be a
4 unmanageable process.

5 What you need to do is to identify what you want
6 the committee to consider because for among other things
7 you might have said something a year or two ago that you
8 no longer believe or has been changed because the parties
9 have changed their positions. So we don't -- we don't try
10 to sort through all of the history of documents in this
11 case, but we wait for the parties to identify to us what
12 they believe is relevant at this point in our process.

13 So I'm going to see if I can look up that
14 statement, and we'll have to see if the other parties
15 object to bringing it in at this point. But for now,
16 let's let the applicant go on and begin the presentation
17 of their testimony on this issue.

18 MR. JACKSON: Okay.

19 MS. FOLEY GANNON: Thank you.

20 We will call Felicia Bellows, and as I said, Rick
21 Rotte is here from the BLM and can I think speak to --
22 since the issue has come up about what the BLM has
23 designated out of their Mojave Desert Plan, how that is
24 implemented, and we thought that could be helpful for the
25 commission to hear the BLM's perspective and those issues.

1 HEARING OFFICER KRAMER: Okay, Mr. Rotte.

2 MS. FOLEY GANNON: And Ms. Bellows.

3 Ms. Bellows was sworn in early August, she can be
4 sworn again or she can consider herself still sworn.

5 HEARING OFFICER KRAMER: No, that's fine that
6 she's still sworn.

7 Mr. Rotte, are you of the --

8 MR. ROTTE: I'm of the federal status, and I
9 don't swear.

10 HEARING OFFICER KRAMER: Okay. Well, our rules
11 of evidence --

12 MR. JACKSON: Mr. Kramer, I'm sorry.

13 HEARING OFFICER KRAMER: I'm sorry?

14 MR. JACKSON: I have to object to Mr. Rich Rotte,
15 he's with the BLM, he took part in withholding information
16 from me. Why should he be able to testify when I cannot
17 present evidence? I object.

18 HEARING OFFICER KRAMER: Well, your objection
19 would be overruled. If you feel that the BLM is not
20 providing you with information that they should, you need
21 to try to enforce that in, you know, in the appropriate
22 proceeding, which is not our case.

23 MR. JACKSON: Okay. Mr. Kramer, again, the
24 fact -- there's two issues here. One, they withheld the
25 information. That the commission has no jurisdiction on,

1 I agree with you 100 percent. But in order to comply with
2 the California Environmental Quality Act, my understanding
3 is that you have to have the information, relevant,
4 significance information to make an information decision.

5 The fact that they've -- I've already shown that
6 the information that they're withholding is significant,
7 that has to be taken into account when -- in order to
8 comply with CEQA.

9 HEARING OFFICER KRAMER: Well, it's not clear to
10 me that you've shown that they've withheld relevant
11 information. You've certainly alleged that.

12 MR. JACKSON: Well, here's the trick, Mr. Kramer:
13 I can't show it to you because they didn't give it to me.
14 I can provide you with over two inches of documentation
15 with correspondence with the BLM, I can provide you with
16 the letter identifying the documents they're withholding,
17 I can provide you with all the information that was
18 submitted to the Department of Interior.

19 As I indicated in my brief, this is on going, and
20 they have to decide this. But the fact of the matter is
21 they withhold information from me, and Mr. Rich Rotte was
22 one of the individuals that was doing it. So why
23 should -- again, it's argumentative that he testifies and
24 data is withheld from me so I cannot testify or present
25 those exhibits. It's a matter of fairness.

1 HEARING OFFICER KRAMER: You said that was your
2 status report number five?

3 MR. JACKSON: Yes.

4 HEARING OFFICER KRAMER: Okay. Well, I've
5 located it on our website, and I'm going to download it,
6 but you're free to ask Mr. Rotte questions when it comes
7 time for cross-examination to attempt to impeach his
8 testimony, but we will allow his testimony to occur.

9 And as I was about to say, although he -- because
10 of federal policy is unwilling to be sworn as a witness in
11 our proceedings, the commission is allowed under the
12 somewhat relaxed rules of evidence that we have for our
13 proceedings to take into account, I'm paraphrasing, but
14 basically evidence of the sort that reasonable people
15 would rely upon in the conduct of their affairs.

16 That sure sounds like a quote, doesn't it?
17 Nobody would talk like that.

18 And so we will do that.

19 So go ahead, Ms. Gannon.

20 MS. FOLEY GANNON: Thank you.
21 Whereupon,

22 FELICIA BELLOWS
23 was called as a witness herein and, having been previously
24 duly sworn, was examined and testified as follows:

25 ///

1 DIRECT EXAMINATION

2 MS. FOLEY GANNON: And starting with you,
3 Mr. Rotte, so we can understand the context of this
4 discussion, if you could possibly explain and if we could
5 put up our figure which was submitted as 82B --

6 HEARING OFFICER KRAMER: First or the second one?

7 MS. FOLEY GANNON: The first one, which is
8 showing the -- we believe it shows the current public
9 access routes.

10 Are you familiar with this map, Mr. Rotte, have
11 you seen this before? I can bring you a hard copy if
12 you'd like.

13 MR. ROTTE: I have seen that and I've seen so
14 many maps, and for the record, it's Richard Rotte,
15 R-o-t-t-e. And I thought that might be helpful.

16 MS. FOLEY GANNON: That is helpful, thank you.

17 Again, if maybe as you were -- as we were just
18 discussing here with the commissioner, there seems to be
19 some confusion about or difference of opinion about the
20 existing public access that exists in these lands.

21 Can you describe the BLM's position?

22 MR. ROTTE: And I'm not specifically talking to
23 this map. And my testimony, I'm referring to regulations,
24 policy which would be established in manuals, and land use
25 plans. So I would refer back to the West Mojave Plan

1 which is the land use plan amendment, it amends the CDCA
2 plan, which has the open route designations. And I think
3 that this map correctly represents the designations in
4 that area. It's just from this distance it's really hard
5 for me to see.

6 MS. FOLEY GANNON: Yeah, and for clarity,
7 obviously we're not asking you to sponsor this map.
8 Ms. Bellows has already sponsored this map, we were just
9 putting it up for illustrative purposes if it helps in
10 your discussion.

11 MR. ROTTE: Okay.

12 MS. FOLEY GANNON: So we're not asking you to
13 attest to its accuracy.

14 MR. ROTTE: Can I talk about the transportation
15 system in this area?

16 MS. FOLEY GANNON: Please do.

17 MR. ROTTE: And normally it's not required of a
18 federal employee to present their vitae because it's
19 assumed that because I'm doing the job and I've been hired
20 to do the job that I'm qualified to do the job. But prior
21 to retirement from the army I had over seven years'
22 experience of verifying conformities to regulations. I
23 went through six months of training through the BLM to
24 ensure conformity of regulations and policy as it pertains
25 to land use. Okay.

1 Talking about transportation in this area, I want
2 to go back -- the BLM, we have different levels of or
3 different types of roads. People say a road or a route.
4 So I want to characterize what we have in that area and
5 kind of the three main types of roads or routes that we
6 have.

7 We have public roads which are publicly
8 maintained roads. A good example is the I-40. It's
9 maintained by Cal Trans, Department of Transportation,
10 it's a paved road and it's clearly maintained by a state
11 agency. So public roads are roads that are held in title
12 by a public agency and generally maintained by the agency.

13 And then under our regulation, 43 CFR 2800, we
14 also authorize roads as we do other uses on public land.
15 So these I'm going to refer to as "permitted roads." And
16 sometimes a road is permitted and ancillary to other uses,
17 in this case Calico Solar is proposing that we permit some
18 roads on the outside perimeter of their project that may
19 also provide a public access, but that's discretionary to
20 the BLM, because although we permit the road we may
21 require them to post the road as not public access,
22 privately maintained although it is on public property.

23 And then under -- and the regulation that I don't
24 generally use, it's because it's under the trail system,
25 we have 43 CFR 8342, which is the routes of travel that

1 were created here, and our open routes are created under
2 our regulations for trails. So in essence what you have
3 on the green routes that are not public roads, which are
4 publicly authorized, that's an expanded trail system.
5 Generally they were created of routes down to two feet
6 wide that were currently in place as part of the criteria,
7 and for public access and to use under casual use.
8 They're not maintained. If an individual wishes to use
9 this -- one of these routes or trails as access or regular
10 use, they would require right of way from the BLM under
11 the 43 CFR 2800 in order to do any maintenance on the
12 route.

13 So if one of these trails got washed out and it
14 was your sole access to your property, you would have to
15 come back to us and get a right of way for the entire
16 length much the route. If somebody is maintaining one of
17 these routes at this time, to my knowledge it would be a
18 trespass. The routes north of the I-40 that I'm familiar
19 with, the county has a route that they've identified as
20 Hector Road that's .31 miles in length, but I'm not sure
21 exactly where the beginning and end is, is that it's
22 intersected by the I-40, and then BNSF has routes that
23 parallel they're right of way that are within their right
24 of way.

25 MS. FOLEY GANNON: And when you're describing

1 these as current routes, when would they have been
2 established?

3 MR. ROTTE: These particular routes were
4 established in the West Mojave Plan amendment to the CDCA
5 plan under the trail regulations.

6 MS. FOLEY GANNON: Okay. And with you aware of
7 any of these routes that were in existence before the plan
8 or were in existence before FLPA was enacted?

9 MR. ROTTE: Almost all of these routes were in
10 existence prior to the designation of FLPA, and when -- on
11 the eastern side of the Calico Solar Project, section 17,
12 which is near the power plant, which is where the power
13 line road would cross the BNSF line, at the passage of
14 that plan amendment that was private land. The BLM, when
15 they acquired that land, has not designated any routes on
16 section 17.

17 I hope -- if people don't understand section 17,
18 let me know, and I can explain that.

19 And then going to the west side of the project,
20 what is sometimes referred to as Hector Road, Hector Road
21 exit, the historic Hector Road goes from the Hector mine,
22 which is south of the I-40 to the Hector siting which is
23 in Section 9. Section 9 is private land. BLM manages
24 public land. We don't have any authority on private land.
25 So the Hector Road, at that point where it intersects the

1 railroad track is in Section 9.

2 The designated open route that comes due north
3 along the Section 9, 10 section line ends outside of the
4 BNSF right of way within Section 9. So that designated
5 open route ends south of the railroad track.

6 I was unable to find any designated route in the
7 area of this project that crosses the railroad track, and
8 I would envision that you'd have to go east or west near
9 Ludlow or Newberry Springs to find a designated open route
10 where you could access any property on the north side of
11 the BNSF line.

12 MS. FOLEY GANNON: So in your view, what will be
13 the impact if this project is approved and BLM grants a
14 right of way to the project as proposed on existing routes
15 and/or public roads?

16 MR. ROTTE: Near the pipeline, it will close an
17 existing route. And I've heard no comment on that route.

18 It will have no effect on the designated open
19 route that parallels the section line between Section 9
20 and ten. So that's on the south side of the I-40.

21 On the north side of the I-40, it will -- and to
22 some of the private lands, it will actually increase
23 access in that there will be a permitted route that's
24 maintained. The advantage is, if you want to use that
25 route, at BLM we do overlapping rights of way, so the

1 first one in bears almost all the expense, so the second
2 one in, we can overlap that right of way and it's
3 basically existing -- all existing disturbance. So their
4 environmental costs are considerably less.

5 MS. FOLEY GANNON: Thank you.

6 Now, turning to miss blows, are you the same
7 Felicia Bellows who gave earlier written and oral
8 testimony in these proceedings?

9 MS. BELLOWS: I am.

10 MS. FOLEY GANNON: And is the -- your resume that
11 was attached to your earlier written testimony still valid
12 and correct?

13 MS. BELLOWS: It is.

14 MS. FOLEY GANNON: And can you -- I believe you
15 sponsored this exhibit, Exhibit 82 B as part of your
16 earlier testimony; is that correct?

17 MS. BELLOWS: That's correct.

18 MS. FOLEY GANNON: And can you describe briefly
19 what this exhibit is showing?

20 MS. BELLOWS: The exhibit is showing the open
21 routes -- it lays over Calico Solar on top of the open
22 routes today and the access today. And then it shows
23 basically what would, as Mr. Rotte was just mentioning,
24 what would no longer be available.

25 MS. FOLEY GANNON: And with the not a part of

1 project, which is in the northern section of what's
2 labeled here as the Calico project, and it's called out as
3 not a part area one, can you describe what the yellow,
4 again what the yellow routes are showing with relationship
5 to that area?

6 MS. BELLOWS: The yellow route that cuts through
7 there is an open route today. And once the plant is --
8 well, basically in construction, then what will happen is
9 there will be an access road completely around the site,
10 and at various locations along that access road there will
11 be exits, because we'll have desert tortoise exclusionary
12 fencing, we'll have actually our fencing, then we'll have
13 the road, then we'll have the desert tortoise exclusionary
14 fencing, and at each one of the exits so that the land
15 owners in the not a parts can access that, will have
16 exits, and will have cattle guards there so that the
17 desert tortoise can't come into their road.

18 MS. FOLEY GANNON: Hearing Officer Kramer, it's
19 our next exhibit.

20 HEARING OFFICER KRAMER: You mean the next part
21 of the same one?

22 MS. FOLEY GANNON: Next part of the same one,
23 yeah.

24 HEARING OFFICER KRAMER: Like that?

25 MS. FOLEY GANNON: That's it, yes.

1 HEARING OFFICER KRAMER: Okay.

2 MS. FOLEY GANNON: Okay, can you call out what
3 you were just describing on this?

4 MS. BELLOWS: So the red lines here that are
5 shown within the Calico Solar footprint, those are the
6 routes that will no longer be available once the facility
7 is in construction. But the yellow that is now running
8 around the site will be the access road that will be going
9 completely around the site and that not only the people
10 that have land in the not a parts, but also people who
11 want access to the Cady Mountains to the north of us, can
12 drive through and have access too.

13 MS. FOLEY GANNON: Okay. So coming from Newberry
14 Springs, then it would be an existing route and they would
15 be going just north, then east, and then to the not a
16 part; is that correct?

17 MS. BELLOWS: That's correct, using legal access.

18 MS. FOLEY GANNON: Right. And then if you're
19 coming from Ludlow, you would be coming up and going
20 around the project and going to the west; is that correct?

21 MS. BELLOWS: Correct.

22 MS. FOLEY GANNON: And so this looks like there's
23 going to involve construction of some new roadways; is
24 that correct?

25 MS. BELLOWS: That is correct.

1 MS. FOLEY GANNON: And have the impacts
2 associated with construction of those roadways been
3 studied, this part of the project?

4 MS. BELLOWS: Yes, they have.

5 MS. FOLEY GANNON: And the environmental impacts
6 of that have been reviewed?

7 MS. BELLOWS: Absolutely.

8 MS. FOLEY GANNON: Thank you.

9 Do you have anything else you would like to add,
10 Ms. Bellows?

11 MS. BELLOWS: It might be useful to talk a little
12 bit about the access that we have had to the site.
13 Mr. Rotte mentioned Hector Road. The easiest way to
14 access the site is to exit I-40 at Hector Road, head
15 north, you get off of Hector Road and you're on Elementus
16 private property. So that dirt -- the dirt portion of the
17 continuation of Hector Road --

18 MS. FOLEY GANNON: So that's near not a part
19 three?

20 MS. BELLOWS: Yes. Right there, which is shown
21 in purple, it is on private land, Elementus land, which we
22 had access to. We continued up through there. There was
23 a at grade crossing there. When we originally went out to
24 the site and started doing our surveys and all the studies
25 that we needed to get done, we approached BNSF Railroad

1 about access at that particular crossing. BNSF okayed
2 that but said you need to put in a at grade crossing, and
3 put in a at grade crossing with a gate and a lock. We
4 paid for that at BNSF's request. We also had to post
5 insurance for the use of that at grade crossing, which is
6 their typical approach now due to safety concerns.

7 So our access today to the site is via BNSF's at
8 grade crossing there, and then along their right of way to
9 the Calico Solar site.

10 MS. FOLEY GANNON: So prior to installation by
11 you of the at grade crossing, what crossing was there at
12 that railroad?

13 MS. BELLOWS: There was a -- not a legal crossing
14 there. There was a crossing there that people were using
15 but not legal because it's in the a route, is my
16 understanding, and that is in fact, Elementus land south
17 much the railroad.

18 HEARING OFFICER KRAMER: So for the record, so
19 the Hector Road alignment that you're talking about is on
20 the east side of the area that is marked not a part area
21 three; is that correct?

22 MS. FOLEY GANNON: Not the east --

23 MS. BELLOWS: It's the purple line, the purple
24 line --

25 HEARING OFFICER KRAMER: Right here?

1 MS. BELLOWS: Right there.

2 HEARING OFFICER KRAMER: Okay. Then I'll say for
3 the record that that is the east side of the not a part
4 area three on the second figure, well the first and the
5 second figures of Exhibit 82 B as in boy. Just so I can
6 remember later.

7 MR. ROTTE: Mr. Kramer, they're on the west side.
8 When they're referring to Hector Road.

9 HEARING OFFICER KRAMER: Over here?

10 MR. ROTTE: Right there.

11 HEARING OFFICER KRAMER: Okay. That's --

12 MR. ROTTE: That's west. East is over by the --

13 HEARING OFFICER KRAMER: No. No. No. East of
14 the not a part area, east of this little area.

15 MR. ROTTE: Oh, I'm sorry.

16 HEARING OFFICER KRAMER: Okay. You withdraw your
17 correction?

18 MR. MEYER: Does it help to clarify that it's
19 within the not a part, not on the edge of it, it's --

20 MS. BELLOWS: That's correct.

21 MR. MEYER: -- Within it.

22 HEARING OFFICER KRAMER: From the figure it
23 appears to be on the eastern edge, but that's a good
24 clarification.

25 MS. FOLEY GANNON: As you were describing

1 Ms. Bellows, part of that goes through the private
2 property?

3 MS. BELLOWS: That's correct.

4 MS. FOLEY GANNON: Once it gets to the not a
5 part. Below that it is not on private property; is that
6 correct?

7 MS. BELLOWS: Right, as Mr. Rotte was mentioning,
8 .3 miles of it are paved, and that is --

9 MS. FOLEY GANNON: A public road.

10 MS. BELLOWS: Right.

11 MS. FOLEY GANNON: And then it goes to the not a
12 part, which is on private property and it's not paved.
13 And then you said you get to a crossing which you
14 constructed?

15 MS. BELLOWS: That's correct. Well, BNSF did at
16 our expense.

17 MS. FOLEY GANNON: With BNSF's help. Right.

18 And you described a moment ago the fact that
19 there is now a locked gate at the crossing. That was
20 installed at whose request?

21 MS. BELLOWS: At BNSF's request.

22 MS. FOLEY GANNON: And that is at their right of
23 way there, their crossing where they control; is that
24 correct?

25 MS. BELLOWS: That is correct.

1 MS. FOLEY GANNON: Okay. Thank you.

2 These witnesses -- or my witness is available for
3 questioning, and Mr. Rotte might be available for
4 discussion.

5 HEARING OFFICER KRAMER: A fine distinction.
6 Staff?

7 MS. HOLMES: A couple of questions.

8 CROSS-EXAMINATION

9 MS. HOLMES: First of all, just a matter of
10 clarification. When you refer to a designated route, is
11 that the same thing as an open route? You used -- the
12 reason I ask this question is you said there are public
13 routes, permitted roads and open routes. And then you
14 started talked about designated routes.

15 MR. ROTTE: Okay. Public roads, private roads,
16 and designated routes. Routes may be designated as open,
17 closed, or limited. In this case, the green lines are
18 designated open routes.

19 MS. HOLMES: Okay. Thank you.

20 MR. ROTTE: And that's through the planning
21 process, and its discretionary and can be terminated at
22 any time.

23 MS. HOLMES: So then are the 43 CFR 2400 roads
24 private roads?

25 MR. ROTTE: 43 CFR 2800 are permitted roads.

1 MS. HOLMES: Okay. Just a second ago you talked
2 about private roads, so I'm just trying to get the
3 nomenclature straight.

4 MR. ROTTE: They would be -- well, they're
5 permitted roads. I'm sorry -- and yes, I have been
6 confusing and not consistent.

7 Okay. We have public roads held by a public
8 agency, private roads held by an individual, permitted
9 roads may be public or private because if it's not federal
10 highway fund, then we would permit to a road to the State
11 of California or to the County of San Bernardino, it would
12 be a permitted county road. But permitted is not
13 necessarily public or private, could be either.

14 MS. HOLMES: Okay. I'll preface this two
15 questions with a statement. Staff is not certain that
16 they have assessed the environmental impacts associated
17 with this permitted road, we're in the process of checking
18 right now with respect to bio and cultural. We had
19 thought that this was an issue that had been resolved with
20 BLM, and so we didn't look at the issue of Hector Road and
21 Mr. Jackson's issue when Exhibit 82 was filed.

22 With that clarification, can you tell me what the
23 distance is between the fence line and the public access
24 road that you're referring to as the perimeter road?

25 MS. BELLOWS: Can you ask -- when you're

1 referring to fence line, the project fence line?

2 MS. HOLMES: Yes.

3 MS. BELLOWS: Okay. So all of it is within our
4 permitted area, right, it's all the right of way, it's all
5 within the right of way.

6 MS. HOLMES: I understand you have a right of way
7 from BLM or you would have a right of way from BLM that is
8 bigger than the fenced area. And my understanding, or you
9 can correct me if I'm wrong, my understanding then is that
10 within your right of way but outside of the fenced area,
11 there is now proposed to be a new road that goes around at
12 least part of the perimeter of the project.

13 MS. BELLOWS: So the notion is or the way we're
14 designing is that the right of way is right on the
15 outside, next to it is the desert tortoise exclusionary
16 fence, next on the inside of that is the road, then the
17 actual chain link project fence, and then you have our
18 power plant on the inside.

19 MS. HOLMES: So what's the distance -- is the
20 road, what I'm calling the perimeter road immediately
21 adjacent to the chain-link fence?

22 MS. BELLOWS: Correct.

23 MS. HOLMES: And refresh my recollection, how
24 many feet from the chain-link fence to the -- to any
25 constructed part of the project, whether it's a SunCatcher

1 or a hydrogen line or something like that.

2 MS. BELLOWS: We will also be having on the
3 inside of that fence since we have a maintain that fence,
4 we'll have an inside road along our perimeter fence to
5 maintain it.

6 MS. HOLMES: So you'll have tortoise fencing,
7 what I'm calling perimeter road, chain-link fence, and a
8 maintenance road --

9 MS. BELLOWS: Correct.

10 MS. HOLMES: -- And then how -- what's the
11 distance again from the chain link fence to the closest
12 location of anything that contains hydrogen, whether it's
13 a SunCatcher or a line?

14 MS. BELLOWS: I don't know that off the top of my
15 head. I'll have to find an answer to that.

16 MS. HOLMES: Okay. That's information that we
17 would be interested in. Thank you.

18 I think those are all the questions for now.

19 HEARING OFFICER KRAMER: Any other party?

20 MR. JACKSON: Pat Jackson.

21 HEARING OFFICER KRAMER: Of course. Go ahead,
22 Mr. Jackson.

23 CROSS-EXAMINATION

24 MR. JACKSON: Okay. My first question is for
25 Mr. Rich Rotte.

1 HEARING OFFICER KRAMER: Okay. Please speak up.

2 MR. JACKSON: You indicated that Hector Road
3 going north from interstate 40 is classified as an open
4 road, right?

5 MR. ROTTE: I'm sorry, Mr. Jackson, no, I did
6 not. Not -- depends on where you're at. Immediately
7 adjacent to the I-40, Hector Road is considered a county
8 road, .31 miles long. Is that the segment you're talking
9 about?

10 MR. JACKSON: No, I'm talking from that
11 segment --

12 MR. ROTTE: Okay.

13 MR. JACKSON: -- going north on the section line
14 between 9 and 10 to --

15 MR. ROTTE: Okay. That's not the historic
16 Hector Road alignment. That's the desert -- that's --
17 under the West Mojave Plan, that was designated as an open
18 route. In just a minute I'll give you -- the route number
19 is AF 410, and route AF 410 ends outside of the BNSF right
20 of way. Are we talking the same language now?

21 MR. JACKSON: Yes, we are.

22 MR. ROTTE: Okay.

23 MR. JACKSON: Okay. Now, you said it ends at the
24 BNSF right of way. Okay. Now, that right of way is
25 private property, correct?

1 MR. ROTTE: No. The BNSF right of way was
2 authorized by act of Congress --

3 MR. JACKSON: Is it private property?

4 MR. ROTTE: -- Where it crosses public land on
5 July 27th, 1866. So where it crosses public land in fee,
6 the underlined fee estate is managed by the BLM with the
7 right of way imparted to BNSF all the rights of that
8 legislation, and it may have been amended that I'm not
9 aware of.

10 MR. JACKSON: Okay. The question is as that
11 route that you -- an open route goes north and ends at the
12 right of way, right, do any of those open routes cross any
13 private property? Or does the depiction stop at the
14 property line?

15 MR. ROTTE: The BLM does not have the authority
16 to designate routes on private land.

17 MR. JACKSON: Correct. So you won't depict any
18 open routes on private land; is that correct?

19 MR. ROTTE: The BLM does not have the authority
20 to designate open routes on private land. If there was a
21 map or an instrument prepared that shows an open route on
22 private land, I would have to say that that diagram is in
23 error.

24 MR. JACKSON: Okay. So you're saying that any
25 map will not show, if it's an open route, and it's

1 correct, will not show an open route across private
2 property, right? Is that correct?

3 MR. ROTTE: There would be no designation of an
4 open route on private property.

5 MR. JACKSON: Okay. Let's move on.

6 Now, you identified Hector Road from where it was
7 maintained by the county north, in a north direction
8 towards the railroad right of way. You said you had a
9 number, a designated number for that route?

10 MR. ROTTE: Are you talking about -- we need to
11 be very clear, Mr. Jackson, on whether or not we're
12 talking about the designated open route AF 410, or the
13 historic Hector Road that went from the Hector siting to
14 the Hector mine.

15 MR. JACKSON: Okay.

16 MR. ROTTE: So please tell me are you referring
17 to AF 410 or are you referring to Hector Road?

18 MR. JACKSON: Okay. I'm referring to AF 410.

19 MR. ROTTE: Okay.

20 MR. JACKSON: Now, that is an open route under
21 the California desert conservation area plan, correct?

22 MR. ROTTE: As amended by the West Mojave Plan.

23 MR. JACKSON: Okay. It has a route designation
24 that you identified as AF 410. How did it get that
25 designation?

1 MR. ROTTE: I've been unable to find any record
2 on how that designation was made. We can find it -- we
3 find it on maps, but we can't find -- we've been unable to
4 locate any analysis that led up to that.

5 MR. JACKSON: Okay. Are you familiar with the
6 route designation decision tree?

7 MR. ROTTE: I'm not sure what you're referring
8 to.

9 MR. JACKSON: Okay. Under the California Desert
10 Area Conservation Plan, the routes in that area were given
11 designations, as you'd mentioned. Some were classified as
12 open, and some are classified as closed. In order to --
13 for the BLM to make that determination, according to the
14 West Mojave Plan information you sent me, there is a route
15 designation decision tree.

16 Please explain to the committee how those -- how
17 that decision tree applies to AF 410.

18 MR. ROTTE: I'm not familiar with the process of
19 designating routes. I come into play after the routes are
20 designated, which generally when we're looking at
21 designated routes for realty actions, it's -- there's a
22 lesser level of NEPA compliance required because it's
23 generally looked at that a designated route is an existing
24 area of disturbance. So generally, and very generally,
25 because I've got a biologist and archeologist in the room,

1 the level of survey is usually sometimes less but not
2 always. So when we look at when we see these from the
3 realty specialist, that these are potentially areas of
4 previous disturbance, the applicant, when they come in
5 with their application would identify what they believe is
6 the level of disturbance and part of their justification
7 to say that they don't need to do a lot of survey there
8 because it's already disturbed, but for the sake of this
9 project -- and I've been with this project since 2005 with
10 Bruce Osbourne and Bob Liden.

11 So we've looked at this area, even the expanded
12 area, tried to determine all the resources that may or may
13 not be impacted.

14 So the -- what went into designating the route
15 doesn't really play into the things that I deal with. I
16 look at the record decision that brought the route in.
17 And the -- and when you brought up the litigation that's
18 currently on going, and I'm not totally familiar with the
19 litigation, but my understanding, it would affect route
20 designation, not permitted routes, because we permit
21 roads, so it wouldn't affect the permitted roads are the
22 roads that are authorized -- or the routes authorized by
23 Congress. But if the west Mojave route designation fails
24 in litigation, my understanding is the designated routes
25 would end up being closed until further analysis and

1 requirements are done. You know. And so whether or not
2 for this trail system, if there was adequate, that's not
3 my call, we have other people that deal with that.

4 I'm sorry if I went on a long trail, I do that
5 sometimes.

6 MR. JACKSON: Okay. So getting back -- first of
7 all you said that there was a lot of disturbance. You
8 consider disturbance -- how did you -- why would you think
9 that there's disturbance on a road.

10 MR. ROTTE: Mr. Jackson, I didn't say there was a
11 lot of disturbance because that's trying to quantify
12 something, and it's subjective. What I said is when we
13 see a designated route on a map, we believe without
14 further investigation that there's a high probability that
15 there is an existing disturbance there. A designated
16 route could be a motorcycle route that's two feet in
17 width. To some people that's a lot of disturbance.
18 Where's my biologist? And to some people, that's minimal
19 disturbance, like to the railroad, right? Two feet?

20 So it's subjective. What's a lot to one is a
21 little to another. So what we say is we -- there's a
22 strong belief that there's previous disturbance there.

23 (Discussion beyond range of microphone.)

24 MR. ROTTE: It's been used. That's from an
25 archeologist.

1 MR. JACKSON: Okay. So getting back to the route
2 designation decision tree, okay, that is, my
3 understanding, is used to either to designate whether a
4 route is open or closed, correct? But you're saying that
5 you're not familiar --

6 MR. ROTTE: I'll yield to you. I don't know --

7 MR. JACKSON: -- With the with the route
8 designation tree.

9 MR. ROTTE: Tell me where you want to go.

10 MR. JACKSON: I want you to admit that you -- the
11 BLM has the decision records, right, that were used in
12 1980 to determine that Hector Road receives an open route
13 designation as item three on the decision tree which meant
14 that it was needed or necessary, to answer the question,
15 does the route provide commercial, administrative, or
16 private land access. My contention has been that
17 Hector Road is necessary for access. Now, I will not
18 refute the BLM's position that that use be casual use.
19 I'm just trying to get from you, because you're an expert
20 brought in to testify on whether -- if you have any
21 information on the route designation decision tree for
22 Hector Road.

23 MR. ROTTE: I think I answered that. I don't
24 have access to the information that would lead me to have
25 knowledge of the rationale for the designation of AF 410,

1 because what you're referring to as Hector Road is on
2 private land, and we didn't designate that.

3 MR. JACKSON: Okay. So Hector Road actually has
4 four designations, does it not?

5 MR. ROTTE: Are you referring to AF 410 or
6 Hector Road?

7 MR. JACKSON: Okay. No. Okay. AF 410, okay, is
8 an open route, right, that is in the approximate area of
9 Hector Road, correct?

10 MR. ROTTE: You would access AF 410 from
11 Hector Road.

12 MR. JACKSON: Okay. North of the railroad there
13 is other routes open route designations, correct?

14 MR. ROTTE: Yes, there are.

15 MR. JACKSON: Can you identify those for me,
16 please?

17 MR. ROTTE: AF 133, oh, gosh. AF 052. Tell me
18 what you want.

19 MR. JACKSON: I want those that are in close
20 proximity to Hector Road.

21 MR. ROTTE: AFO 42.

22 MR. JACKSON: Let's speed this up. I'm referring
23 to AF 0410. I'm referring to AF 042. I'm referring to
24 AF 133. I'm referring to AF- --

25 MR. ROTTE: The list that I provided you.

1 MR. JACKSON: Pardon me?

2 MR. ROTTE: The list that I provided to you?

3 MR. JACKSON: And A F 0 52.

4 MR. ROTTE: Okay. What's the question?

5 MR. JACKSON: Those, are they not, open routes?

6 MR. ROTTE: They're --

7 MR. JACKSON: Why -- how do they get that
8 classification?

9 MR. ROTTE: It was -- for my use, it comes from
10 the record of decision from the West Mojave Plan.

11 MR. JACKSON: Okay. Where are the record
12 decisions?

13 MR. ROTTE: It's on our website.

14 MR. JACKSON: No, it's not.

15 I asked you to provide the record decisions for
16 those four routes, and now you're saying they're on the
17 website. I'm confused. Either you have them or you
18 don't.

19 MR. ROTTE: The record of decision is on our
20 website.

21 MR. JACKSON: The record of decision --

22 MR. ROTTE: Last that I looked. It may not be
23 there today, I haven't been there today, and I don't want
24 to be argumentative, but I've looked, and I've read the
25 record of decision on our website.

1 MR. JACKSON: Okay.

2 MR. ROTTE: And Ms. Bellows says she's seen it.
3 Defenders -- Defenders, right? You've seen it on our
4 website?

5 MR. JACKSON: I'm talking about the --

6 MR. ROTTE: So we have many people in this room
7 that have seen the record of decision for the West Mojave
8 Plan on the BLM website.

9 MR. JACKSON: I'm not -- I'm not refuting that.
10 I'm asking you, based upon the decision tree for the
11 vehicle route designation record of decision for those
12 four open routes.

13 MR. ROTTE: So you're looking for the
14 background -- I don't have access to that, Mr. Jackson.

15 MR. JACKSON: So you don't know or you can't
16 testify that Hector Road did not receive an open route
17 designation under item three stating that as necessary for
18 private access, access to private property.

19 MR. ROTTE: I do not have the information behind
20 the decision to designate as an open route, as I've stated
21 earlier.

22 MR. JACKSON: That's understandable. Let's move
23 on.

24 You stated that there's public roads, open roads,
25 permitted roads and restricted roads; is that correct?

1 MR. ROTTE: I didn't say "restricted."

2 MR. JACKSON: Okay. I'm sorry.

3 MR. ROTTE: There's public, private, there's
4 permitted, oh, and there's the trail system.

5 MR. JACKSON: Okay. Now you, if I'm not
6 mistaken, defined public road as one that's paved.

7 MR. ROTTE: I'm, I had some -- public roads are
8 where title to the road is held by a public agency, city,
9 county, state or federal agency. And the example I
10 believe I gave was the I-40, which is title is held and
11 maintained by the State of California.

12 MR. JACKSON: Okay. In referring to Exhibit 82
13 B, it identifies current public access routes and proposed
14 public access routes.

15 MR. ROTTE: That terminology's being used by the
16 applicant.

17 MR. JACKSON: Okay. So the applicant's
18 designation for current public access routes and proposed
19 public access routes are arbitrary and capricious.

20 MR. ROTTE: No, I didn't say that. You'd have to
21 ask them. What I said is that's the terminology being
22 used by the applicant, and I also previously stated that
23 the BLM would make the determination whether or not they
24 are open routes or limited routes, which means travel is
25 limited to use by the applicant.

1 MR. JACKSON: So you're saying that these public
2 access routes are not public. I'm confused.

3 MR. ROTTE: That's not -- the applicant is
4 proposing those routes as public. The BLM, I do not
5 believe has made that determination.

6 MR. JACKSON: Okay. Maybe I should -- thank you
7 very much.

8 MR. ROTTE: Thank you, Mr. Jackson.

9 MR. JACKSON: Maybe I should direct my questions
10 to Felicia Bellows.

11 So please explain to me the difference between an
12 open route and a public access route.

13 MS. BELLOWES: I think Mr. Rotte was accurate in
14 the fact that what we've used that designation on the map
15 for is to demonstrate what will actually transpire on the
16 site when we put the -- when we actually open construction
17 on the Calico Solar site. So that some of the routes that
18 are currently open and run through the site, we've tried
19 to demonstrate that they will no longer be available to
20 the public once construction starts and fencing goes up
21 around the site.

22 MR. JACKSON: Okay. Now, let's go to this public
23 access roads. I mean, there's more than just those that
24 are being closed within the project area. You show on
25 Exhibit 82 B a public access route extending from Newberry

1 Springs easterly towards the project, and westerly from
2 Ludlow, correct?

3 MS. BELLOWS: Excuse me one second, Mr. Jackson.
4 Is it the next slide?

5 (Telephone interruption.)

6 HEARING OFFICER KRAMER: That's a repeat off
7 fender who is now muted.

8 MS. HOLMES: Is there a three strike rule?

9 MS. BELLOWS: Okay. Okay. I'm ready.

10 (discussion beyond range of microphone.)

11 MS. BELLOWS: Mr. Jackson?

12 MR. JACKSON: Pardon me?

13 Can you pull up the figure on the screen? Now,
14 according to the legend, the yellow on either exhibit is a
15 public access route.

16 MS. BELLOWS: Right. On the one where we
17 actually have the actual Calico Solar site post
18 construction, we're showing the yellow as the proposed
19 public access route, because as Mr. Rotte was saying,
20 until we have the right of way grant, we don't know yet
21 whether the area around the Calico Solar site, the fence
22 that we're building that we discussed, will be designated
23 open route or not.

24 MR. JACKSON: Okay. But the figure shows a
25 public access route in the project area as well as routes

1 that extend westerly towards Newberry Springs and easterly
2 towards Ludlow, correct?

3 MS. BELLOWS: It shows -- well, I'm not quite
4 sure which figure you're looking at. I'm looking at the
5 one with the red routes --

6 MR. JACKSON: No. Okay. Okay.

7 MS. BELLOWS: Are you looking at that one?

8 MR. JACKSON: Let's go to the figure one first.

9 MS. BELLOWS: Okay.

10 MR. JACKSON: Okay. This will be simple because
11 it will eliminate some color.

12 MS. BELLOWS: Okay.

13 MR. JACKSON: Now, if I'm not mistaken there's
14 four colors, right? And each color represents according
15 to the legend, four different route designations.

16 MS. BELLOWS: Correct.

17 MR. JACKSON: Okay. The first issue is what is
18 the difference between an open route and a public access
19 route?

20 MS. FOLEY GANNON: Ms. Bellows, was yellow a term
21 what was added to this by you and not a BLM term?

22 MS. BELLOWS: That's correct. Again, that's what
23 Mr. Rotte was referring to earlier. There is our own
24 designation to show what's going to transpire at the site.

25 MR. JACKSON: Okay. So in reality, right, those

1 yellow lines should also be green lines, correct? So it
2 would be less confusing to the viewer. Because now it
3 appears that on either figure there is quote, "public,"
4 end quote, access to the not a part from both Newberry
5 Springs and Ludlow.

6 MR. ROTTE: This is Rich, Mr. Jackson.

7 The problem I see with that, and I could
8 understand where they would have on their yellow lines,
9 and from what I could see from Ms. Bellows has and from
10 the extract I have from the West Mojave Plan is that they
11 pretty much follow the designated open routes. But then
12 as you leave -- when you leave their project and you go
13 north, you enter some private land and some state land,
14 and in order to protect those as private access you would
15 have to get an easement or some kind of instruct from
16 those private land owners. And we would not designate
17 those as green routes. I could see where they could be
18 green on public land, but on the private land they're
19 going to require some kind of an easement from the private
20 land owners or from the State of California.

21 MR. JACKSON: I want to thank you for bringing
22 that up. I take back all those bad things I said about
23 you. Because that was one of the points that I wanted to
24 make.

25 Whether you want to designate -- call it a public

1 access route or an open route, what is the distance, how
2 many miles is it from Newberry Springs to the project
3 area, those roads -- those routes, how many miles is that,
4 approximately?

5 MS. BELLOWS: Approximately --

6 MR. ROTTE: 17 miles.

7 MS. BELLOWS: Yeah, I would say 15, Mr. Rotte is
8 saying 17.

9 MR. SPRINGER: Actually, it's only four from the
10 eastern border of Newberry Springs.

11 HEARING OFFICER KRAMER: Who was that?

12 MR. SPRINGER: Sorry. Chief Springer, Newberry
13 Springs.

14 MR. ROTTE: I was thinking from the exit on the
15 other side of the rest area.

16 MR. SPRINGER: There is mile marker 22, so you're
17 looking probably about one miles or so.

18 MR. ROTTE: Thank you very much.

19 MR. JACKSON: Thank you very much.

20 But on this map, the yellow is depicted as, let's
21 just say for the sake of argument, 15 miles. Part of it
22 is probably, I'm assuming, county maintained roads, right?
23 And then I'm also going to have to assume that part of it
24 is not.

25 Okay. Let's talk about the routes, the yellow

1 routes from Ludlow to the project. How many miles is
2 that?

3 MR. ROTTE: Just a minute. I'd say 12 to 17.

4 MR. SPRINGER: I believe 18 miles.

5 MR. JACKSON: So I came up with 17 on Ludlow and
6 24 on the --

7 MR. ROTTE: I'll concede 15 is a valid estimate.

8 MR. JACKSON: Let's average, okay?

9 Okay. How many miles of either of those routes
10 cross private properties?

11 MR. ROTTE: The -- well, I'll concede that both
12 of those routes cross some private property.

13 MR. JACKSON: I'm asking how many miles, how many
14 parcels, how many miles?

15 MR. ROTTE: I haven't done that research. But
16 the point is --

17 HEARING OFFICER KRAMER: Well, I think you've
18 answered the question then.

19 Mr. Jackson, we're -- we're sitting up here at
20 the committee side of the room and we're puzzled about
21 where this is going.

22 I guess wanting you to tell us what point you're
23 trying to make here.

24 MR. JACKSON: Okay. I'll tell you. Let me just
25 sum it up here.

1 HEARING OFFICER KRAMER: By the way, we do have
2 copies of our status report number five now.

3 MR. JACKSON: Thank you very much.

4 Okay. If you look at the exhibits in status
5 report five, they will show that the public and private
6 property owners have been using Hector Road as well as the
7 other open routes in and around the project area to access
8 private lands and public lands. Okay?

9 HEARING OFFICER KRAMER: And explain more
10 precisely how they show this, because we won't be digging
11 through trying to pin the facts --

12 MR. JACKSON: Okay. I'm sorry. It's probably
13 about -- there's probably about 15 exhibits in there. And
14 they go back from all the way from maps that go back from
15 the 1940s, they go to current Thomas Brothers -- Thomas
16 guide maps. They clearly show or depict Hector Road.

17 They also include assessor's plat maps that show,
18 identify, Hector Road as a county road. They also include
19 the West Mojave Plan map that shows that Hector Road is
20 designated as an open route. These exhibits go all the
21 way back 50 years to show that the public has been using
22 Hector Road and these other roads prior to the federal
23 land policy and management act, and prior to the
24 California desert area plan. And therefore, under these
25 they're recognized valid rights of way and open routes.

1 And my contention is that they can't arbitrarily close
2 those routes and deprive the private property owners
3 access to their land.

4 MR. ROTTE: Mr. Kramer --

5 MR. JACKSON: Now, they're coming back and saying
6 we'll provide alternative routes.

7 First of all, I doubt that anybody in that room
8 has driven those yellow routes within the last six months.
9 I contend that they probably don't even know that those
10 routes are still usable. I contend that those routes
11 cross not only private property where they'll have to gain
12 easements to perfect them as public routes, but the
13 westerly routes by Newberry Springs actually cross Troy
14 Dry Lake. And I don't think that the BLM or the applicant
15 have the authority to force the public and private
16 property owners to drive across a dry lake bed.

17 Further, I contend that they don't know if these
18 routes are actually usable or not. They don't -- they
19 can't tell me the mileage of these routes. They cannot
20 tell me how many miles are on private property, they can't
21 tell me how many of those routes are actually washes or
22 traverse washes.

23 What they're saying is they haven't done a survey
24 on these routes. And the most important thing is, is yes,
25 they might have done biological resource studies around

1 their project area, but they haven't provided any
2 environmental studies to show what impact this proposed or
3 public access route will have from the project area to
4 Ludlow or from the project area to Newberry Springs. I'm
5 sure there's designated routes in there. And they -- in
6 order for them to propose this route, under CEQA, they
7 have to consider alternatives. And the alternatives have
8 to take into account environmental impacts. And they have
9 not done that today, and that's why I believe they should
10 strike 82B as well as -- either one or two things;
11 consider Hector route open and allow private property
12 owners to access their properties or B, close it, join the
13 BLM and close it, deprive us of our right to use our
14 property, and pay us just compensation. It's one or the
15 other.

16 MR. ROTTE: Can I?

17 HEARING OFFICER KRAMER: Mr. Rotte.

18 MR. ROTTE: I'm trying to just be clear. And
19 I'll talk to both of them. A F 41 0 which is a designated
20 open route does not cross the BNSF Railroad. This project
21 has made no -- in the current proposal as I understand it,
22 there is no proposal to close a portion of AF 410.

23 MR. JACKSON: No. No. Let's talk about the
24 other one.

25 MR. ROTTE: And Hector Road which is west of

1 there, the historic Hector Road on private land, my
2 understanding is they are planning to approve that and I'm
3 not familiar with any crossing on private land. And A F
4 42 is not close to the railroad, it's about two-tenths of
5 a mile away from my estimation. And A F 0 58 parallels
6 the railroad, and there's no connectivity in this area of
7 historic Hector Road, the historic Hector Road or AF 410
8 which Mr. Jackson mistakenly refers to as Hector Road,
9 there's no crossing authorized by the BLM of the railroad
10 and there would be no crossing authorized by the BLM
11 that's the public has used that would be closed by the BLM
12 as a result of project.

13 HEARING OFFICER KRAMER: Okay. Let me stop you
14 there. All the roads you refer to as "A F," X, Y, Z, do
15 we have any kind of exhibit that we'll be able to look
16 those up on if we need to?

17 MR. JACKSON: Yes, they're in the West Mojave
18 Plan that Mr. Rotte was referring to and they are shown as
19 Exhibit F.

20 HEARING OFFICER KRAMER: What's the approximate
21 date of the West Mojave Plan?

22 MR. ROTTE: 2006, I believe it was March of 2006
23 when it was signed.

24 MS. FOLEY GANNON: And it is available on the
25 website, the BLM's website or we can provide you a figure.

1 MR. JACKSON: I'm going to correct Mr. Rotte
2 here. These routes, the actual surveys started in 1979.
3 These routes, right, some were designated as open routes
4 in 1980, some in 2003 and some in 2006. And referring
5 back to the Center of Biological Diversity versus the BLM,
6 the Ninth District Court ruled that all routes
7 designations after 1980 are invalid. They -- in order for
8 you to come up with valid routes or public access routes
9 as you call them, you have to establish the baseline. And
10 you haven't done that yet. And, Mr. Rotte, you've already
11 essentially indicated that you have no evidence, you have
12 no experience in identifying any of these routes as open.
13 In a sense, you're going off hearsay.

14 HEARING OFFICER KRAMER: Mr. Jackson, okay, we
15 need to cut to the chase here. Can you tell us what it is
16 about the proposed permit that the energy commission would
17 be issuing that is affecting your access to your property?
18 And first tell me, I assume that you are in the not a part
19 area one; is that correct?

20 MR. JACKSON: Yes.

21 HEARING OFFICER KRAMER: Okay.

22 MR. JACKSON: That's a good assumption.

23 HEARING OFFICER KRAMER: On the telephone folks,
24 we're hearing a beep every so often. Does anybody know
25 what that is?

1 MR. JACKSON: Mr. Kramer, it might be also
2 interesting to add that in accordance as I described in my
3 recent reply brief, that I also represent -- excuse me, I
4 don't represent two other property owners.

5 HEARING OFFICER KRAMER: We understand there are
6 other people there, and but that the number of people
7 doesn't really affect the issue. It's one of access,
8 whether it's for one parcel or for many.

9 So what is it about the proposed project, if it
10 were approved, that is affecting your access? The
11 railroad has previously put up a -- basically has blocked
12 the old Hector Road or 410, whatever it was, Road crossing
13 of the railroad. Now this project would extend a little
14 bit to the northwest of the not a part area number one, so
15 it would require a bit of rerouting in that area. We see
16 that from the exhibits.

17 But what is it -- but I gather your real problem
18 is with the Hector Road access; is that correct?

19 MR. JACKSON: Here's the issue, I'll sum it up.
20 Okay? As to the crossing that's secondary because if you
21 don't keep Hector Road open it's not going to matter
22 whether I can cross the railroad tracks or not. I've
23 already explained in my reply brief that there are
24 easements by implication and necessity, but that's moot.

25 HEARING OFFICER KRAMER: You need to speak up.

1 We're having trouble hearing you.

2 MR. JACKSON: Okay. I said, you know, the
3 crossing is moot. And I and the other property owners
4 will not refute Burlington Northern Santa Fe's right to
5 close any crossing that they see fit for safety reasons,
6 okay? If they want to do that, that's fine.

7 However, if they also block the other current
8 access road, then people will have to go either from
9 Newberry Springs or Ludlow. And I'm saying I just flew
10 over that area on July 2nd, and those routes are not
11 usable.

12 HEARING OFFICER KRAMER: So what is this other
13 access route that you're -- I guess you're using in lieu
14 of Hector Road?

15 MR. JACKSON: There's the one that's depicted as
16 yellow coming 24 miles from Newberry Springs, you'll see
17 the two lines coming from the west, or the left, and then
18 you'll see two yellow lines coming from Ludlow, about 17
19 miles to the project area. They're saying that I have
20 to -- the property owners, instead of going the current
21 four and a half miles that they did use before the gate
22 was put in, now they have to cross some 41 miles of open
23 desert route through washes that nobody can prove will
24 ever exist because of private property crossings, washes,
25 and so forth.

1 So the bottom line is this whole figure is
2 essentially a figment of their imagination. There's no
3 basis for that either. So one, you side with the BLM, you
4 know, close Hector route, deprive us our access, right,
5 and pay us just compensation, right, or recognize our
6 right to use our property, you know, based upon the
7 California desert area conservation plan and FMLPA, as
8 indicated in my brief.

9 HEARING OFFICER KRAMER: Okay. You still haven't
10 answered my question.

11 You, a couple minutes ago now, you said that you
12 could be accepting of the railroad's closing of the --
13 let's call it the Hector Road crossing, because you had
14 some other way of crossing, and I'm simply asking you to
15 describe what that is so we can imagine it.

16 MR. JACKSON: Okay. Okay. There was two
17 crossings in that area. One was the Hector Road crossing.
18 Now, going back to, that was one that was used by the
19 people until they put the gates in.

20 There's another crossing, and that crossing is
21 under the southern California Edison right of way. Up
22 until just three weeks ago --

23 HEARING OFFICER KRAMER: Okay. Now, you need
24 to -- for somebody who's not a local there, you need to
25 tell me exactly where that is.

1 MR. JACKSON: Okay. Pull up one of the figures,
2 82-B. Okay, now, one of the crossings, if you expand it
3 or enlarge it a little bit --

4 HEARING OFFICER KRAMER: So you're looking at
5 this now?

6 MR. JACKSON: Yeah.

7 HEARING OFFICER KRAMER: Okay.

8 MR. JACKSON: Okay.

9 HEARING OFFICER KRAMER: Tell me where I need to
10 go with --

11 MR. MEYER: If I can help, it's the eastern
12 diagonal edge of the project that you see running up, the
13 eastern edge of the project on that diagonal runs along
14 the Edison right of way.

15 HEARING OFFICER KRAMER: Okay. So then it's the
16 yellow segment that's to the southeast of the Calico Solar
17 label on the map; is that correct, Mr. Jackson?

18 MR. JACKSON: Correct.

19 HEARING OFFICER KRAMER: Okay. So you can get
20 across the railroad in that area?

21 MR. JACKSON: No, not anymore. Because as
22 depicted on this exhibit, the railroad is going to
23 prohibit people, the public from accessing that private
24 right of way. So essential it's going to be closed.

25 HEARING OFFICER KRAMER: Okay. Can you currently

1 cross it?

2 MR. JACKSON: By trespassing, yes.

3 HEARING OFFICER KRAMER: But is there some sort
4 of crossing there?

5 MR. JACKSON: Yes.

6 HEARING OFFICER KRAMER: Okay. And from this map
7 you gather that the railroad is going to close that.

8 MR. JACKSON: Well, that and other information.

9 HEARING OFFICER KRAMER: I think I need a break
10 to gather my thoughts, but do -- Mr. Jackson, do you have
11 other questions for the witness?

12 MR. JACKSON: No.

13 HEARING OFFICER KRAMER: Okay. Any other party
14 have -- I guess I already asked if any other party had any
15 questions for these witnesses.

16 MS. BELLOWS: Can I clarify one thing here?

17 HEARING OFFICER KRAMER: Go ahead.

18 MS. BELLOWS: One thing to note in terms of the
19 map and in terms of the, what Mr. Jackson is referring to
20 as Hector Road, we will not be impacting in any way what
21 he is referring to as Hector Road south of the railroad or
22 north of the railroad, okay? In other words, we're not
23 closing it within our site, we simply have not designated
24 it as yellow because it's not what we are -- have defined
25 as, you know, true legal access. It's designated here I

1 believe as an open route or a undefined route. It will
2 remain so, and to the extent people want to access and use
3 that route, once we're in the construction, it will still
4 be available.

5 The issue is the at grade crossing and the gate
6 there. In fact, we won't be using that any longer once we
7 have our permitted access in place. So that gate for all
8 intents and purposes is simply then BNSF's and they'll do
9 what they need to do with that.

10 So in terms of the impact of the project on
11 Hector Road as Mr. Jackson is defining it, we're not doing
12 anything with it.

13 HEARING OFFICER KRAMER: And so in the future if
14 Mr. Jackson can establish his right to be able to cross
15 there, he -- the only change in his access to his property
16 will be that and the northeast -- or northwest corner of
17 your project, he will have to jog to the --

18 MS. BELLOWS: Right.

19 HEARING OFFICER KRAMER: -- north and then to the
20 east and then --

21 MS. BELLOWS: Correct.

22 HEARING OFFICER KRAMER: -- south again.

23 MS. BELLOWS: He'll go around that little
24 chimney, he'll get on a little access road, go around that
25 little chimney, and get out. Sorry. Chimney.

1 HEARING OFFICER KRAMER: So, Mr. Jackson, what is
2 it you're looking for from this committee and this
3 commission. Are you asking the committee to force the
4 railroad to reopen that gate?

5 MR. JACKSON: No.

6 HEARING OFFICER KRAMER: What then?

7 MR. JACKSON: I'm asking, based upon my reply
8 brief, I'm asking the commission to do one of two things.

9 One, if you go through the reply brief, it
10 provides all the documentation that shows that
11 Hector Road, whatever you call it, the AF 410 or whatever,
12 those are open routes, and that's what people have been
13 using to access their properties.

14 If you don't use that, you use this circuitous
15 route, that is like I said, is highly questionable.
16 Either you go along with that or you just say -- you go
17 along with the BLM and you close it, you say, no, we
18 disagree with Mr. Jackson, it's not an open route and you
19 won't have access from these yellow lines and so forth,
20 and then the private properties are land locked, and their
21 properties are worthless without access. And therefore,
22 that to me is -- constitutes a taking.

23 It's explained in the brief, the reply brief.

24 HEARING OFFICER KRAMER: I don't recall a reply
25 brief with a lot of documentation attached to it.

1 MS. FOLEY GANNON: It was filed two days after
2 ours. I believe we filed on Wednesday and he filed on
3 Friday.

4 HEARING OFFICER KRAMER: Okay. Did it have a lot
5 of documentation or --

6 MS. FOLEY GANNON: No.

7 MR. JACKSON: Mr. Kramer, I would appreciate it
8 if the California Energy Commission docket my statements,
9 briefs, and comments as fast as they do the applicant's.

10 HEARING OFFICER KRAMER: Well, Mr. Jackson, it
11 seems to me to key to what you want is that you want
12 Hector Road reopened. And what is it you believe gives
13 the commission to do that?

14 MR. JACKSON: If you look at my reply brief it
15 should explain --

16 HEARING OFFICER KRAMER: I'm really hoping that
17 you'll summarize it for me rather than just refer me to
18 it.

19 MR. JACKSON: Okay. I'm sorry. Yeah, there's
20 too much paperwork in this.

21 What I'm saying is that Hector Road is a valid
22 federal land policy and management act right of way. It
23 has been for over 30 years. I'm also saying that
24 Hector Road has been and is today a California desert
25 conservation act designated open route. All that

1 information says, those laws say that I can use that route
2 to access my property.

3 HEARING OFFICER KRAMER: Okay. But what
4 authority does the California State Energy Commission have
5 over the United States government? I think historically
6 when we've tried to tell them what to do, it hasn't worked
7 out.

8 MR. JACKSON: Okay. Then I suggest that your
9 legal counsel refer to the recent Ninth District Court
10 ruling of the Center for Biological Diversity, versus the
11 BLM. You will also note that the center for biological
12 diversity submitted their comments, I believe, on July 1st
13 to deal with the same -- similar issue. Their concerns
14 are the same as my concerns, but they're more concerned
15 about the environmental impacts that this proposed access
16 route will have on biological resources.

17 HEARING OFFICER KRAMER: Okay. I understand.
18 But the ninth circuit court of appeals is a federal court
19 which has authority over the federal government.

20 MR. JACKSON: That's correct.

21 HEARING OFFICER KRAMER: So you still haven't --
22 I'm gathering that there is no authority for the energy
23 commission to be determining rights to roadways on federal
24 property.

25 MR. JACKSON: They overturned the BLM's right to

1 designate routes -- they've invalidated all the routes --
2 those very routes are depicted on these figures, they
3 invalidated those routes, right, and they cannot designate
4 additional routes until they establish baseline
5 guidelines.

6 So all the routes that you're seeing depicted
7 here are invalid according to the ninth district.

8 Now, you do not have jurisdiction over the BLM, I
9 agree with that, but you do have jurisdiction over data,
10 information, and I believe should -- are bound by LORS.
11 And those LORS are, in this case, the federal land
12 planning management act, and California Desert Area
13 Conservation Plan.

14 HEARING OFFICER KRAMER: And so what do they tell
15 you, that no roads can be established in this area until
16 these baselines are set?

17 MR. JACKSON: Correct.

18 HEARING OFFICER KRAMER: And that would be by the
19 federal government?

20 MR. JACKSON: No. Well, the BLM would -- they
21 would do their environmental studies and establish
22 baselines so to determine that they won't have an adverse
23 environmental impact.

24 Now, the applicant has done considerable research
25 in that area, and there is no contention that they will be

1 able to provide all the baseline information necessary for
2 the perimeter roads. But once a mile or so outside the
3 project area, there is no baseline information to meet
4 CEQA.

5 HEARING OFFICER KRAMER: Okay. What do you mean
6 by "baseline information"?

7 MR. JACKSON: In order to comply with the
8 California Environmental Quality Act, you have to
9 establish the current condition --

10 HEARING OFFICER KRAMER: Okay. I understand. Of
11 course the federal government complies with NEPA.

12 MR. JACKSON: Right. But you comply with CEQA.
13 And CEQA, right, states -- also has baselines too.

14 HEARING OFFICER KRAMER: Well --

15 MR. JACKSON: As indicated in the brief they also
16 have to consider the environmental impacts. In this case
17 alternatives. And the alternatives are these extensive
18 roadways from the project area to these adjacent cities,
19 nearby cities.

20 HEARING OFFICER KRAMER: Well, Mr. Jackson, I
21 think we've --

22 MR. JACKSON: I've confused you enough.

23 HEARING OFFICER KRAMER: I'm not sure I fully
24 understand your points, but I'm pretty sure that my
25 understanding is not going to be enhanced by our

1 continuing this dialog.

2 MR. JACKSON: I agree with you.

3 MS. FOLEY GANNON: And I think Mr. Rotte is
4 trying to get a plane, so I think he may be wanting to
5 leave.

6 HEARING OFFICER KRAMER: Okay. Does any party
7 have any more questions for Mr. Rotte?

8 MR. JACKSON: No.

9 HEARING OFFICER KRAMER: Okay. Thank you,
10 Mr. Rotte.

11 MS. FOLEY GANNON: Thank you.

12 MR. ROTTE: The one thing I want to leave is this
13 project has not asked the BLM, and the BLM has not
14 closed -- it is not anticipating any routes that -- let me
15 think -- there are no existing routes that cross the
16 railroad track that have been designated by the BLM or
17 recognized by the BLM. There is a -- Mr. Jackson just
18 brought up, the Edison right of way does cross the
19 railroad, but the access to that, I'm sure has been
20 negotiated between Southern California Edison and BNSF and
21 how that's done safely. That land was not public land
22 when this project started. So we did not designate any
23 routes in that area where Edison crosses the railroad.

24 HEARING OFFICER KRAMER: Okay. But there would
25 be a couple of relocations of route, however, if this were

1 permitted, correct?

2 MR. ROTTE: Yes, and as you brought up in the --
3 by the not a part, there would be some relocation up
4 there.

5 HEARING OFFICER KRAMER: Okay. Thank you.

6 Okay. We've done the applicant. And that's all
7 we've done.

8 Staff, do you have a witness?

9 MS. HOLMES: I believe earlier this morning
10 Ms. Vahidi was on the phone. I don't know if she still
11 is.

12 HEARING OFFICER KRAMER: Let me check on her.

13 Ms. Vahidi?

14 MS. VAHIDI: I've been here the whole time.

15 HEARING OFFICER KRAMER: Okay. You're going to
16 need to speak up a little bit, but go ahead, Ms. Holmes.

17 THE REPORTER: Hearing Officer Kramer, who is
18 this?

19 MS. HOLMES: Negar Vahidi.

20 HEARING OFFICER KRAMER: V-a-h-i-d, as in dog, i.
21 And were you sworn earlier?

22 MS. VAHIDI: Yes, I think on -- twice.

23 HEARING OFFICER KRAMER: Okay then --

24 MS. HOLMES: In fact, all of the land use
25 testimony came into the record, so rather than have her

1 repeat it, we just simply make her available on
2 cross-examination on this issue.

3 HEARING OFFICER KRAMER: Applicant, any
4 questions?

5 MS. FOLEY GANNON: No questions, thank you.

6 HEARING OFFICER KRAMER: Any intervenor here in
7 the room with us?

8 Mr. Jackson, any questions.

9 MR. JACKSON: No.

10 HEARING OFFICER KRAMER: Okay. Thank you.

11 MS. HOLMES: Thank you for your patience, Negar.

12 MR. JACKSON: Can I ask her one question so she
13 feels like she covered something today?

14 HEARING OFFICER KRAMER: I'm sorry, who was that?

15 MR. JACKSON: This is Pat Jackson.

16 HEARING OFFICER KRAMER: Oh, go ahead.

17 MR. JACKSON: She's been so patient with us,
18 maybe I should ask her just one question so she'll feel
19 useful.

20 HEARING OFFICER KRAMER: Well, actually we don't
21 need to fill any time, so if that's your own goal --

22 MR. JACKSON: No, I'll just thank her for her
23 time.

24 MS. VAHIDI: If you don't need us anymore --

25 HEARING OFFICER KRAMER: No, I think you're done.

1 Okay. Any witness from any other intervenor?
2 And that includes you, Mr. Jackson.

3 MR. JACKSON: No, thank you.

4 MR. LAMB: If this is on access, we do have the
5 issue regarding land use that was brought up by
6 Mr. Phillips, but it doesn't relate to this issue.

7 HEARING OFFICER KRAMER: Remind me of that issue
8 again.

9 MR. LAMB: It's transportation and traffic and
10 access. It's access to the site through the BNSF right of
11 way.

12 HEARING OFFICER KRAMER: Okay. And is this the
13 condition to get the crossing up as soon as possible
14 basically?

15 MR. LAMB: It involves all of that and basically
16 the planned access that is set forth in the supplemental
17 staff assessment.

18 HEARING OFFICER KRAMER: Or is this really just
19 the general traffic and transportation discussion?

20 MR. LAMB: It's more general traffic.

21 HEARING OFFICER KRAMER: Okay. Well, we're about
22 to segue into that.

23 MS. HOLMES: Hearing Officer Kramer, I think that
24 just in the interest of full disclosure, there's also an
25 issue of access, in that staff has recommended in it's

1 revised Worker Safety 6 access, I believe through BNSF
2 right of way for emergency response purposes.

3 HEARING OFFICER KRAMER: Is that in yesterday's
4 filing?

5 MS. HOLMES: Yes.

6 HEARING OFFICER KRAMER: Do you happen to have a
7 page of that marked?

8 MR. MEYER: It should be about one 43 or
9 something of that nature. I'd have to look.

10 MS. HOLMES: One 40, page 1 40.

11 HEARING OFFICER KRAMER: You know, the footers
12 aren't very helpful on this one.

13 MS. HOLMES: Just look at the very end.

14 And that had -- that was -- staff developed that
15 revision in response to the applicant's proposal to divide
16 the hydrogen systems into the northern and southern
17 sections, and we believe that in response to that it was
18 important to have separate emergency access to both
19 sections of the site. So I think that's -- I have no idea
20 if BNSF has any concerns about that. They're looking
21 quite puzzled, so I'm guessing they would like to have the
22 opportunity to review it.

23 MR. LAMB: I haven't seen it.

24 MS. HOLMES: It was in the same package that was
25 filed last night. I wanted to include it in the list of

1 potential access issues.

2 MS. BURCH: When you want to hear it?

3 HEARING OFFICER KRAMER: Well, we can wait till a
4 little bit later today.

5 MS. BURCH: Today would be good.

6 HEARING OFFICER KRAMER: If you want to take a
7 little time.

8 Okay. So we're talking about Worker Safety 4 or
9 Worker Safety 6B it looks like.

10 MS. HOLMES: I beg your pardon?

11 HEARING OFFICER KRAMER: Right here.

12 MS. HOLMES: That's correct.

13 HEARING OFFICER KRAMER: Okay. So that's --

14 MS. HOLMES: To be fair, we did indicate that --
15 I believe we indicated at the hearing that we were
16 concerned about emergency access, but at any rate we're
17 certainly happy to give you time to take a look at it
18 and --

19 MS. BURCH: You know, frankly, there's a whole
20 group at BNSF to look at these issues. We have to consult
21 with. I'm really not sure what to say.

22 HEARING OFFICER KRAMER: Well, this is also the
23 kind of thing you could address in your briefs, I suppose,
24 but since it looks like we're going to be having some
25 discussions on Monday morning, this one looks like it

1 shouldn't take more than 20 minutes.

2 So we could put it over till Monday morning.

3 MS. HOLMES: I think it would also be helpful to
4 have the fire department representatives on the phone as
5 well, since they can talk about, much better than I can,
6 what's involved with emergency response so that the
7 Burlington Northern can get some sense of what would be
8 involved in providing this access.

9 MS. BURCH: Would it even be possible to get some
10 names, to have some conversations with them?

11 MS. HOLMES: I believe one of them is on the
12 phone right now, but I'm sure we can get you names at a
13 break.

14 MS. BURCH: That would be a good idea.

15 HEARING OFFICER KRAMER: Okay. So I've added to
16 the Monday list, Worker Safety -- actually I started the
17 list, that's a good sign -- Worker Safety 6B.

18 Okay. So then, Mr. Jackson, we're about to close
19 up your issue, did you have any final to say.

20 MR. JACKSON: Yes. Thanks, everybody, for
21 listening to me.

22 HEARING OFFICER KRAMER: You're welcome.

23 Okay of the traffic and transportation in
24 general. I believe the railroad had a rather inclusive
25 list of conditions to discuss. And then we need to put

1 on -- formally put on the testimony.

2 Applicant, did you have witnesses to offer?

3 MS. FOLEY GANNON: We have written testimony that
4 was submitted as Exhibit 67, and the witness, Noel Casil
5 is here and available, but we don't have any direct
6 testimony we feel it's necessary to put on.

7 HEARING OFFICER KRAMER: Okay. Does anybody want
8 to have any discussions with her?

9 MS. FOLEY GANNON: Him.

10 HEARING OFFICER KRAMER: Him, sorry. I heard
11 Nora, but pardon me.

12 Anybody? Intervenors on the telephone on in the
13 room.

14 I guess not.

15 Staff. Mr. Adams?

16 MR. ADAMS: No, no questions.

17 HEARING OFFICER KRAMER: No, I mean your witness.

18 MR. ADAMS: Oh witnesses, yes, we do have a
19 couple witnesses.

20 HEARING OFFICER KRAMER: I'm sorry, Mr. Jackson
21 are you still there?

22 MR. JACKSON: Yes.

23 HEARING OFFICER KRAMER: Are you requesting that
24 we consider your status report number five and the
25 attachments as an exhibit?

1 MR. JACKSON: That would be a good idea.

2 HEARING OFFICER KRAMER: Okay. Do you remember
3 what number series I assigned to you? If not, I'll look
4 it up.

5 MR. JACKSON: I think it was 900 if I'm not
6 mistaken. I'd have to check my notes.

7 HEARING OFFICER KRAMER: Okay. All right we'll
8 number this 900. For Mr. Jackson's case, is anybody
9 planning on objecting to the receipt of his status report
10 number five as Exhibit 9 hundred?

11 MS. FOLEY GANNON: The applicant is not.

12 HEARING OFFICER KRAMER: Okay. Anyone else?
13 Seeing none.

14 Okay, Mr. Jackson, we won't be accepting it right
15 now, but it looks as if there will not be any objections
16 when we get to that point in the process.

17 MR. JACKSON: Thank you very much.

18 (Intervenor Jackson's Exhibit 900 was
19 marked for identification.)

20 HEARING OFFICER KRAMER: Mr. Lamb, how long do
21 you think, would you guess it will take to deal with your
22 concerns about traffic?

23 MR. LAMB: Ten or 15 minutes.

24 HEARING OFFICER KRAMER: Okay. Why don't we go
25 ahead with staff's witness then.

1 MR. LAMB: Okay. We have as witnesses Marie Mc
2 lean and Alan Lindsley who I think previously testified to
3 preparing our part two section on traffic and
4 transportation.

5 Whereupon,

6 MARIE McLEAN and ALAN LINDSLEY
7 were called as witnesses herein and, having been
8 previously sworn, were examined and testified as follows:

9 DIRECT EXAMINATION

10 MR. ADAMS: But to make sure, can you tell me if
11 you in fact prepared traffic and transportation.

12 MS. McLEAN: Yes, I prepared traffic and
13 transportation.

14 MR. ADAMS: And is your testimony true and
15 complete to the best of your knowledge?

16 MS. McLEAN: To the best of my knowledge, it's
17 true and complete.

18 MR. ADAMS: Do you have any changes to make to
19 it?

20 MS. McLEAN: Not at this time.

21 MR. ADAMS: We previously identified that as 309,
22 I believe of staff's evidence.

23 Could you briefly summarize your testimony?

24 MS. McLEAN: We've already talked about glint and
25 glare, so the significant or important issue in the

1 remaining traffic and transportation testimony had to do
2 with crossing BNSF's railway and the potential that it had
3 for emergency vehicles, workers and visitors and delivery
4 persons because of the trains going by every 15 minutes
5 and being approximately two minutes long. I mean two
6 miles long. So that's the essence of the concerns about
7 traffic and transportation.

8 MR. ADAMS: And the plan to install an overpass
9 over the railroad tracks resolved some of your initial --

10 MS. McLEAN: It resolved some of it, but we
11 didn't get the information from the applicant till after
12 the traffic and transportation supplement was published.
13 And so we noted -- I noted in reading it that they changed
14 some parts of the project, and it's not actually -- those
15 changes obviously are not reflected in this testimony
16 because we didn't have the information -- I mean, when we
17 wrote the testimony.

18 MR. ADAMS: Ms. McLean is available for questions
19 from other parties.

20 HEARING OFFICER KRAMER: Applicant?

21 CROSS-EXAMINATION

22 MS. FOLEY GANNON: Ms. McLean, what changes are
23 you referring to?

24 MS. McLEAN: Oh just that -- the Phase 1A, the
25 Phase 1A that came in, it was docketed after we published

1 the --

2 MS. FOLEY GANNON: So the notion of having the
3 phases it what you're --

4 MS. McLEAN: Yeah, yeah, we don't have -- I only
5 say that because the -- I think from reading your
6 Phase 1A, we assumed or I assumed when I wrote like the
7 conditions and certification, you're going to have a lot
8 more people going across the track than you probably will
9 have. I'm only assuming this from the size of the
10 Phase 1A. So that's --

11 MS. FOLEY GANNON: Okay. Thank you for that
12 clarify indication.

13 No further questions.

14 HEARING OFFICER KRAMER: So then the changes from
15 Phase 1A, is it fair to say that they reduce your concerns
16 about impacts?

17 MS. McLEAN: They reduce for that phase the
18 concerns about impacts. I think that's fair to say. But
19 I -- we don't have or we could get from the applicant the
20 information about the, you know, Phase 1A or 1B, because
21 there is still some concern now as long as they go over
22 the railroad tracks, depending on how many workers are
23 going to have to go across the tracks, and how many
24 deliveries will be made and how the equipment is going to
25 go across the railroad tracks. That may result in some

1 significant CEQA impact, but we don't have those figures,
2 I don't have that information now, the specific
3 information about the workers at this time since we have
4 Phase 1A and 1B -- it may be a simple way to just clear it
5 up, if you could -- you know, by --

6 MS. FOLEY GANNON: If I could ask another
7 follow-up question.

8 MS. McLEAN: Sure.

9 MS. FOLEY GANNON: Sorry, don't mean to
10 interrupt.

11 HEARING OFFICER KRAMER: Go ahead.

12 MS. FOLEY GANNON: When you did the analysis
13 originally you were assuming Phase 1 in its entirety.

14 MS. McLEAN: Right, exactly.

15 MS. FOLEY GANNON: So you know that Phase 1A has
16 to be a subset of that.

17 MS. McLEAN: Right.

18 MS. FOLEY GANNON: So that the impacts couldn't
19 be more --

20 MS. McLEAN: No, they're not, no -- no
21 they're -- no, they're less.

22 MS. FOLEY GANNON: Okay. And Phase 1B couldn't
23 be more than the entirety of Phase 1.

24 MS. McLEAN: No, it might be less, no, it might
25 be less. It might be -- you may have fewer workers.

1 MS. FOLEY GANNON: So I guess I'm confused why is
2 that information would be necessary or relevant to being
3 able to do is adequate assessment in your opinion.

4 MS. McLEAN: Oh, I think it -- mainly because the
5 significance was determined about how long, how many
6 people crossed the track, how long it was going to take
7 them to cross based on the -- the length of the BNSF
8 trains and that the fact that they went across every
9 15 minutes. And so we needed to have a condition or
10 flaggers and -- to control the crossing, and then flaggers
11 are required to stop traffic from going across the tracks
12 as soon as they see the train coming, and they can see it
13 pretty far. So it -- it -- we have to figure out -- we
14 figure out how many people and vehicles the worst-case
15 scenario of how many workers can get across the track at
16 the -- you know, at the same time, and then how long based
17 on that would it take emergency vehicles to get across the
18 tracks.

19 MS. FOLEY GANNON: I guess I'm still a little
20 confused.

21 If we had -- if what you've calculated out was a
22 larger development in one phase, it seems like then your
23 analysis was a worst-case scenario, and you identified
24 mitigation measures to address that. The applicant is not
25 objecting to those mitigation measures or asking for a

1 reduction in them, even as a subset. So we still think
2 it's appropriate to have the flagging and the rest of
3 it --

4 MS. McLEAN: Okay. I just wanted to be equitable
5 fair to you --

6 MS. FOLEY GANNON: Well, we appreciate that.

7 MS. McLEAN: -- To make sure that I had all the
8 necessary information to make some determination.

9 MS. FOLEY GANNON: We appreciate that.

10 MS. McLEAN: That's what I was trying to do.

11 MS. FOLEY GANNON: Okay. Thank you.

12 HEARING OFFICER KRAMER: So am I hearing
13 correctly though, that what you did analyze is a worser
14 case than what you'll get with the two phases.

15 MS. McLEAN: That's because we didn't have the
16 less worse case when we did the analysis.

17 HEARING OFFICER KRAMER: So is it possible -- it
18 doesn't sound possible that the impacts could be any
19 greater than those that you found.

20 MS. McLEAN: Oh, no, it's not at all, I was just
21 trying to make sure that we did not, in my analysis, short
22 change or did not reflect -- short change the applicant,
23 that's all.

24 HEARING OFFICER KRAMER: Okay. And you found
25 that all the impact could be mitigated --

1 MS. McLEAN: Could be mitigated.

2 HEARING OFFICER KRAMER: -- in a higher degree
3 case.

4 MS. McLEAN: Yes, yes, yes.

5 HEARING OFFICER KRAMER: So it doesn't seem
6 necessary then to update the information.

7 MS. McLEAN: No. No.

8 HEARING OFFICER KRAMER: Any questions from any
9 other party?

10 MR. LAMB: I do. Steve Lamb for BNSF.

11 CROSS-EXAMINATION

12 MR. LAMB: Ms. McLean, I'm just -- I'm confused
13 because are you saying that you're the person that
14 prepared portions of the traffic and transportation that
15 would run essentially from C.11-six through 18?

16 MS. McLEAN: Let me see. C.11-six.

17 Yes, yes,

18 MR. LAMB: Is that correct, ma'am?

19 MS. McLEAN: Yes, it is

20 MR. LAMB: Okay. So if I understand this
21 correctly, there's going to be both a temporary and the
22 permanent access road inside the right of way.

23 MS. McLEAN: That's the information I had.

24 MR. LAMB: And that information was provided by
25 whom?

1 MS. McLEAN: I'm sorry, could you say that again?

2 MR. LAMB: Who provided you with that
3 information?

4 MS. McLEAN: The AFC.

5 MR. LAMB: I'm sorry, what?

6 MS. McLEAN: The application for certification.

7 MR. LAMB: Okay. Ms. Bellows had testified just
8 a little while ago about doing proper studies, analyses
9 for the impacts of the roadways that had been studied and
10 analyzed around the project.

11 Do you recall that?

12 MS. McLEAN: Yes.

13 MR. LAMB: There have been no studies, no
14 analyses, no environmental review of any roadways within
15 the right of way, correct?

16 MS. McLEAN: I don't -- I'm not sure.

17 MR. LAMB: Well, are you aware of any, ma'am?

18 MS. McLEAN: Right at the moment, no.

19 MR. LAMB: Okay. And you're calling for paved
20 roads, right?

21 MS. McLEAN: The requirement for paved roads has
22 to do with the -- it's a standard condition, these are
23 standard conditions which we apply to most traffic and
24 transportation projects that have to use -- use roads
25 simply because there are certain requirements for fire,

1 ambulance access, and the condition of the -- the
2 condition of the road depending on the number of vehicles
3 that have to go across the road, the weight of the
4 vehicles, the size of the vehicles. There's certain
5 requirements for paving of roads that go along with the
6 types and weight, size of vehicles that are going to be
7 used, the number of vehicles that are going to be used.
8 It's a standard condition that's usually enforced in
9 traffic and transportation situations. It's not unusual
10 to this project is what I'm saying.

11 MR. LAMB: Well, you haven't seen any
12 documentation that would lead you to believe that BNSF is
13 going to grant access to put paved roads within their
14 right of way, have you?

15 MS. McLEAN: No.

16 MR. LAMB: But that's what --

17 MS. McLEAN: I think --

18 MR. LAMB: Go ahead.

19 MS. McLEAN: Sorry.

20 I'm just -- I think it's important to understand
21 in this situation that, I mean there may be times in which
22 the energy commission is involved in designing the
23 project, and perhaps does more interaction with the design
24 of the project.

25 We were reacting -- not reacting, but basing the

1 conditions on the project as it was designed. If the
2 roads -- if BNSF needs to give permission to do these
3 certain things it is not the energy commission's or the
4 staff's responsibility to work with BNSF to give
5 permissions. We assess the project on the assumption that
6 the applicant and the railroad have come to some agreement
7 or that what the applicant is telling us is going to
8 happen.

9 If BNSF has some concerns about it or doesn't
10 think that this can happen, then I think that it is
11 possible and likely that these conditions can be changed
12 to fit the circumstances. They're not locked in stone and
13 we will be responsive to whatever happens with the
14 project.

15 So it's been changed once as we've just talked
16 now, with 1A, so we're going to have to change some of
17 these, some of these conditions, and some aspects of our
18 conditions are going to have to be changed.

19 MR. LAMB: Okay. So one of the assumptions
20 you're going to make is that the applicant is telling you
21 what's really going to happen, right?

22 MS. McLEAN: Well, yes.

23 MR. LAMB: Okay. And one of the assumptions that
24 you're making is that the applicant is going to negotiate
25 with BNSF, right?

1 MS. McLEAN: Yes.

2 MR. LAMB: And you understand that BNSF, as a
3 private land owner, may not agree to that.

4 MS. McLEAN: Yes.

5 MR. LAMB: Okay. So you're assuming that
6 something will happen. Would it be assumption also that
7 if BNSF doesn't grant access then the project won't go
8 forward?

9 MS. McLEAN: Well, that -- yes, I would gather
10 that would be true.

11 MR. LAMB: Okay.

12 MS. McLEAN: But I assume that you are going to
13 work -- you'll going to work something out. I mean, we
14 have to assume that or else we wouldn't even be here
15 today.

16 MR. LAMB: Okay. I appreciate that, ma'am.

17 But to get back to -- there is a requirement
18 before there's any certification that if there's a plan
19 for a roadway, it needs to have an environmental
20 assessment, right?

21 MS. McLEAN: Well, I think that you -- I
22 understand that's your position, but I think we could also
23 make the argument that the road was assessed as part of
24 the project.

25 MR. LAMB: What road?

1 MS. McLEAN: An access road, a road to get to the
2 site.

3 MR. LAMB: Okay. Well, all the other roadways
4 that are going to be done, those have been surveyed and
5 assessed, and there's been a determination if there's an
6 impact to desert tortoises and wildlife and flora and
7 fauna, right?

8 MS. McLEAN: I believe so.

9 MR. LAMB: But that has not been done on any
10 roadways within the right of way; is that correct?

11 MR. ADAMS: I'm going to object because this is
12 getting outside of Ms. McLean's area of expertise. In
13 fact, the access roads were analyzed under each of the
14 respective and relevant sections, air quality, biological
15 impacts. Ms. McLean looked at traffic flow and
16 traffic-related impacts from the roads as described in the
17 staff assessment, so the access roads were included in
18 a -- in our thorough environmental analysis of the
19 project. And I don't think its appropriate to be asking
20 our traffic person what assessments were done on the roads
21 under other sections.

22 MR. LAMB: Well, will the applicant agree that
23 this hasn't been done?

24 MS. FOLEY GANNON: I'm sorry, can you rephrase
25 that question?

1 MR. LAMB: There's been no environmental
2 assessment of any roadways within the BNSF right of way,
3 no one's gone in and surveyed them and decided -- made any
4 type of report to meet with any of the many requirements
5 to make sure that you can do a roadway.

6 DR. HUNTER: Dr. Charlotte Hunter.

7 Everything in the project area has been subject
8 to NEPA, and so all of the environmental -- no? Someone's
9 shaking their head back there.

10 Anything in the project area comes under NEPA,
11 which is the National Environmental Policy Act. And the
12 environmental studies have been done. It's not my area of
13 expertise, but --

14 MR. LAMB: Are you aware that the right of way is
15 not within the project area?

16 HEARING OFFICER KRAMER: I think using the term
17 right of way for the railroad --

18 DR. HUNTER: We're using different terms. I'm
19 sorry. I'm talking about the BLM right of way.

20 MR. LAMB: I apologize, ma'am. I'm talking about
21 the BNSF Railroad right of way. I apologize.

22 DR. HUNTER: Okay. Misunderstanding.

23 MS. BELLOWS: Can I address the right of way a
24 little bit here?

25 You know, in terms of access to the site, just to

1 clarify, in a little bit, at some point I'm sure we'll get
2 to describing Phase 1A and talking about and laying it out
3 and talking about access a little bit more, but the point
4 is that the BNSF right of way initially is what we will
5 doing is crossing at the famous Hector crossing right
6 there and hanging a right and going on BNSF's right of way
7 temporarily to do surveys and put up fencing for Phase 1A
8 until BNSF puts in a temporary at grade crossing next to
9 where the bridge will be going, okay?

10 Once that's in place, we will no longer use that
11 access road, okay? So that right of way in terms of
12 access, any upgrades or anything, nothing will need to be
13 done there, you know, other than temporary sort of soil
14 tack or whatever you want us to do on that. I believe
15 that's the plan.

16 So then we'll be using our permitted access road
17 and crossing at the at grade crossing and eventually going
18 to the bridge.

19 The other -- the other right of way that we will
20 be need to go use eventually when we get to Phase 2, we
21 add on 2013, is we will need to go -- come out of our
22 entrance gate, head north on Hector Road, in quotes,
23 right, go up to right below the BNSF at grade crossing,
24 hang a left, and use BNSF's right of way to get over to
25 the little section to the west.

1 And, again, what we have discussed with BNSF, is
2 simply putting soil tack down on that access road, not
3 doing any expansion on that access road, or anything of
4 that nature.

5 I hope that clarifies the applicant's kind of
6 what our plan is, and our conversations with BNSF to date.

7 MR. LAMB: Let me clear, and maybe I can short
8 circuit some of this.

9 The issue that we have and what Mr. Phillips
10 testified about and is prepared to be here to testify
11 about, at least as we read 11-six through 11-18, that's
12 what Ms. Bellows just said is not what that says at all,
13 it's not even close to what it says, so that causes us a
14 lot of concerns, because if the commission adopts these as
15 findings and they're going to happen, you know, we could
16 be theoretically responsible for doing, you know, some
17 type of improved roadway within our right of way, which we
18 haven't discussed, we're not prepared to do. That's what
19 concerns us, because we hear one thing and then we get at
20 a hearing and we go, oh, I understand that's what it says,
21 but that's not what we meant. And that's a real problem
22 for us.

23 HEARING OFFICER KRAMER: Can you direct your
24 attention to the specific language? In other words, are
25 you concerned only about the access to the western most

1 separated parcel?

2 MR. LAMB: No, sir, if you look at C.11-ten, the
3 temporary access road and Trans 1, Trans 1 picks up on
4 C.32, and essentially throughout it, it talks about
5 having -- essentially permanent access roads, okay. It
6 doesn't specify which is which, it talks about them being
7 paved, talks about them being graded, talks about them
8 being, you know, 12 feet on both sides, three feet, you
9 know, apron, talks about culverts, which would, you know,
10 require us to go over ephemeral streams, and again,
11 obviously Mr. Phillips is here, but I don't know if
12 Ms. Bellows has had an opportunity to review his written
13 testimony, if the applicant is in agreement with that,
14 because these are our concerns. And I know that the
15 commission has limited time and has been diligent on a lot
16 of things, so if we can kind of go through this quickly, I
17 would certainly be happy to do so.

18 HEARING OFFICER KRAMER: Well, we certainly
19 appreciate you spelling out exactly what your concern is
20 and being direct about that. I think that's helpful.

21 MR. LAMB: We try.

22 MS. FOLEY GANNON: Mr. Lamb, can you point to the
23 problems in the condition that you would be seeking to
24 have changed?

25 MR. LAMB: There is a number of issues. It talks

1 about the applicant shall construct an all-weather road
2 according to certain standards. That includes culverts
3 and paving, so that they will be safe for use in crossing
4 washes at the site. Throughout the right of way, that's a
5 huge problem.

6 MS. BURCH: If I could, you know, if you would
7 like to delay this till Monday as well, we could meet with
8 the applicant and perhaps short circuit this. We would be
9 happy to give his McLean the correct information.

10 MR. LAMB: If that would speed it up, we would be
11 happy to submit Mr. Phillips's testimony in written form,
12 work with the applicant and try to sort something out.
13 Again, I appreciate that there's some -- you know, you
14 don't have a lot of time here today.

15 What I hear Ms. Bellows saying is not what I'm
16 reading, and assuming that we're all on the same page, I
17 think we can work it out.

18 MS. BURCH: And actually, Ms. Bellows, I
19 submitted a new map, I think two or three days ago, which
20 more accurately reflects our current plans we've been
21 discussing on the access roads.

22 MS. BELLOWS: I submitted that, correct? Is that
23 what you said?

24 MS. BURCH: Yes.

25 MR. LAMB: That's what's been referred to as 1A.

1 MS. BURCH: That's correct.

2 MS. McLEAN: I think we can work it out, and I'm
3 very happy to have BNSF here and the applicant here
4 because it will make our job a lot easier to make sure
5 that we've got the right information, we're all on the
6 same page. It's -- I'm very happy to do this, and thank
7 them.

8 MS. FOLEY GANNON: I believe we can come up with
9 language even maybe tonight that we can give, and see if
10 the other parties can look at it, and maybe by the end of
11 these proceedings we can give it to you.

12 HEARING OFFICER KRAMER: Okay.

13 MS. FOLEY GANNON: I'm optimistic.

14 HEARING OFFICER KRAMER: Okay. On Monday.

15 MS. FOLEY GANNON: Or Monday.

16 HEARING OFFICER KRAMER: Oh, the end of
17 proceedings today.

18 MS. FOLEY GANNON: I'm saying the end of
19 proceedings today. If we could get this checked off, I
20 think is, as Mr. Lamb said, I believe we agree, we just
21 need to get the right language.

22 HEARING OFFICER KRAMER: Okay. So Mr. Lamb, do
23 you have more beyond that?

24 MR. LAMB: No, just as long as we can stipulate
25 that Mr. Phillips's testimony can come in, which would be

1 Exhibit 12 0 six, and he'll obviously submit to questions
2 if you want, but I just want to make sure that testimony
3 is in the record.

4 HEARING OFFICER KRAMER: Okay. Well, is anybody
5 going to object to Mr. Phillips's, number 1206, testimony?

6 Okay. Does anybody have any questions for
7 Mr. Phillips at this point?

8 MS. FOLEY GANNON: No.

9 HEARING OFFICER KRAMER: Okay. All right, so the
10 parties will attempt to modify the conditions to address
11 the railroad's concerns.

12 MR. LAMB: Thank you, sir.

13 HEARING OFFICER KRAMER: Okay. I think we're
14 going to move on to -- I think you were the last party who
15 might have witnesses, Mr. Lamb.

16 Does anyone else have witnesses on traffic?

17 MR. LAMB: I'm sorry, I didn't hear you.

18 HEARING OFFICER KRAMER: Nothing more on traffic
19 from anyone else?

20 MR. LAMB: No, that's it.

21 HEARING OFFICER KRAMER: Okay. Then we will move
22 on to biology, and I'm told that we may lose some of our
23 agency witnesses in a while, so let's get started --

24 MR. LAMB: Mr. Kramer, could we possibly take a
25 quick break before biology?

1 HEARING OFFICER KRAMER: Five minutes?

2 MR. LAMB: That would be great.

3 HEARING OFFICER KRAMER: Okay, yes. We'll go off
4 the record.

5 (Recess.)

6 HEARING OFFICER KRAMER: Okay. We're moving on
7 to biology. And I understand, I think I said that we have
8 some agency representatives who will not be able to stay
9 into the evening with us, so we want to convene a panel of
10 those folks immediately, and get as much done with them as
11 we can before they need to leave us. And then we'll go
12 forward there.

13 So who might we have on the panel, Mr. Adams?

14 MR. ADAMS: Starting with staff --

15 HEARING OFFICER KRAMER: Your microphone.

16 MR. ADAMS: Oh, sorry.

17 We have Scott White and Chris Huntley who were
18 sworn in and testified on August 5th. And in addition,
19 the government panel of other agencies, some of whom are
20 here and some on the phone.

21 Chris Otohal is here, I believe. They are, from
22 the BLM.

23 Ashleigh, are you on the phone?

24 HEARING OFFICER KRAMER: Ashleigh Blackford?

25 MR. ADAMS: Ashleigh Blackford.

1 Tanya Moore?

2 HEARING OFFICER KRAMER: Oh, wait, I might have
3 muted her, because she might have been one of the
4 offenders. Let me --

5 MS. BLACKFORD: No, I'm on a phone line.

6 HEARING OFFICER KRAMER: Yeah, oh you were muted
7 until just then.

8 That's Ashleigh, right?

9 MS. BLACKFORD: I wasn't an offender, you've been
10 on mute.

11 HEARING OFFICER KRAMER: Oh well, something was
12 making noise, but you're back.

13 Let me check this other person.

14 Okay. Keep going.

15 MR. ADAMS: Tanya Moore, are you there?

16 MS. MOORE: Yes, I am.

17 MR. ADAMS: Why don't all of the other agency
18 folks state their name and affiliation.

19 MS. JONES: Becky Jones, Fish & Game. Larry
20 LaPre, Bureau of Land Management.

21 HEARING OFFICER KRAMER: Larry, how do you spell
22 your last name?

23 MR. LaPRE: L-a, capital P-r-e.

24 HEARING OFFICER KRAMER: Thank you.

25 Go ahead, Mr. Adams.

1 MR. ADAMS: Well, Mr. LaPre, are you making
2 yourself available on biological issues, or cultural?

3 MR. LaPRE: Bio.

4 MR. ADAMS: I was told by owe.

5 Tanya Moore is representing the Department of
6 Fish & Game.

7 Ashleigh and Chris, can you spell your names for
8 the --

9 MR. OTAHAL: Yes, my name is Chris Otohal,
10 wildlife biologist at Barstow BLM.

11 HEARING OFFICER KRAMER: Mr. LaPre, we're getting
12 a lot of noise from your line. You may just be moving
13 your hands on your handset or something like that, but
14 we're hearing it.

15 MR. LaPRE: Okay. I'll mute it.

16 HEARING OFFICER KRAMER: Thank you.

17 MS. BLACKFORD: Ashleigh Blackford is spelled
18 A-s-h-l-e-i-g-h, last name Blackford, B-l-a-c-k-f-o-r-d.

19 MR. ADAMS: Okay. Thank you. I think that
20 covers everyone.

21 MS. FOLEY GANNON: Hearing Officer Kramer, before
22 we start, I have a suggestion to make. We had anticipated
23 that we would be going first, and the first thing we
24 wanted to do was describe how the Phase 1A would affect
25 the translocation plan, and because we submitted the

1 information on Phase 1A and the agency representatives on
2 the phone I believe, have all been made aware of the
3 plans, of how it would be phased. But I thought if
4 they're only going to be available for a shorter period of
5 time, that may be something that you want to hear their
6 views on, and others may be commenting on it, so it might
7 be helpful if we first just had Ms. Bellows describe what
8 would be involved in Phase 1A briefly. I don't think
9 it -- it shouldn't take very long, but it might help frame
10 the discussion.

11 HEARING OFFICER KRAMER: Let me ask the agency
12 representatives, when do you need to leave us? Does
13 anybody need to leave before 5:00? Before 5:30? Okay.
14 6:00? Any takers.

15 MR. LaPRE: I have to leave before 5:30 This is
16 Larry LaPre.

17 HEARING OFFICER KRAMER: So at 5:30, Larry?

18 MR. LaPRE: Well, about 5:20.

19 HEARING OFFICER KRAMER: Okay. All right. I
20 think we could give Ms. Bellows -- could she do it in five
21 minutes?

22 MS. FOLEY GANNON: Can you do it in five minutes?

23 HEARING OFFICER KRAMER: Okay. Please go ahead
24 then.

25 MS. BELLOWES: Can we put a map up of that?

1 And I'll go ahead and start sort of talking it
2 through.

3 So, I think this is something that we talked
4 about in the hearings on August 4th through the 6th, but
5 as a result of the DOE financing coming in later than
6 anticipated, what we'll be doing is breaking ground using
7 our own equity, and then waiting for the full financing to
8 fund to swing into full construction. So what that -- so
9 what we'll be doing is at least the minimum in 2010 in
10 order to meet our grant funding requirements.

11 So what we'll be doing, and hopefully we'll be
12 getting a map up here soon, is we will be working on our
13 access road, we will be working on -- and all of this
14 includes the temporary desert tortoise fencing and
15 temporary fencing around these as well. So we'll be
16 working on our access road shown going through the
17 Phase 2 --

18 MS. FOLEY GANNON: And just one moment.

19 For clarity of the record, we have marked this as
20 Exhibit 99, we will be asking for it to be submitted. We
21 docketed it again last week, so you won't have a number
22 assigned to it yet, but we were calling it Exhibit 99.

23 HEARING OFFICER KRAMER: Okay. We'll call it for
24 now the phase --

25 MS. FOLEY GANNON: We have Phase 1A figure, and

1 then there's a description as well.

2 HEARING OFFICER KRAMER: Is it a single page
3 then?

4 MS. FOLEY GANNON: The map is a single page, and
5 then there is a narrative description that is the second
6 page.

7 MS. BELLOWS: So Phase 1A encompasses 250 acres.
8 It is the access road that goes up to the bridge doing
9 bridge work using the temporary at grade crossing until
10 that bridge is in place. Then we'll be working in the
11 main services complex area, which is over to the right of
12 Not a Part 1 shown there. We'll also be working in the
13 well area to supply the water, the substation that's below
14 the main services complex, and then we'll be putting in 60
15 pedestals to the west or to the left of the Not a Part 1
16 area that you see right above the access road there.

17 ASSOCIATE MEMBER BYRON: The green area.

18 MS. BELLOWS: Correct. So that again is all
19 built around of being able to meet the ARRA grant funding
20 in 2010.

21 MS. FOLEY GANNON: Then just for clarity, in
22 terms of the biology, so there would be a separate desert
23 tortoise location effort made this fall related to
24 Phase 1A --

25 MS. BELLOWS: Correct. So as we go out and

1 beginning putting in the fencing, we'll be doing desert
2 tortoise clearance surveys in the areas designated for
3 Phase 1A. We'll be talking about that and showing how
4 many tortoises have been located within that area.

5 HEARING OFFICER KRAMER: What about the road.
6 That wouldn't be fenced. So you'll have some measures to
7 protect the tortoises?

8 MS. BELLOWS: No, the road will be fenced
9 temporarily. We'll be putting -- because we will -- you
10 can see that the main access road eventually will be in a
11 much larger area, but what we'll doing to protect the
12 desert tortoise during that period of time is putting
13 desert tortoise fencing around the road as well.

14 MS. FOLEY GANNON: So all the disturbance areas
15 will be fenced and cleared.

16 MS. BELLOWS: Correct.

17 MS. FOLEY GANNON: Before construction of 1A.

18 MS. BELLOWS: Correct. So here's a diagram with
19 our fencing for Phase 1A. And you can see also that as we
20 discussed, until BNSF has the temporary at grade crossing
21 next to the bridge ready, we will be going up the area,
22 the continuation of Hector Road using the existing at
23 grade crossing there and making a right and using their
24 right of way temporarily. And again, we will be putting
25 temporary fencing along there.

1 HEARING OFFICER KRAMER: Okay. Thank you. Does
2 that conclude your presentation?

3 MS. FOLEY GANNON: That's concludes our
4 presentation on the phasing, yes.

5 HEARING OFFICER KRAMER: Okay. So Mr. Adams, if
6 you want to go ahead with the panel.

7 MR. ADAMS: Thank you.

8 DIRECT EXAMINATION

9 MR. ADAMS: I'd like to start with Mr. White and
10 Mr. Huntley.

11 Did you prepare the second errata to the
12 supplemental staff assessment that was docketed yesterday?

13 MS. SMITH: Point of -- Gloria Smith from
14 Sierra Club. I'd like to -- what is the scope of the
15 testimony, and what exactly are we going to be hearing
16 today? Because we feel like we're prepared to have a very
17 limited hearing on biological resources.

18 HEARING OFFICER KRAMER: Well, we're going to
19 hear whatever we can today, and if you feel the need to
20 bring somebody back to ask them questions later, on
21 Monday, then we'll try to do that.

22 MS. SMITH: Mr. Kramer, we're not available on
23 Monday. We received the staff, the errata, whatever you
24 want to call it, the staff assessment, which from what I
25 can see has substantial revisions, a lot of new

1 information last night, and I think it was after 5:00.

2 We have not yet been able to review as promised
3 the August 5th transcript, which is where the applicant
4 did it's opening testimony on the translocation plan. And
5 we had a very limited amount of time to review the
6 translocation plan itself.

7 And we're not available on Monday, I don't know
8 about the other intervenors who are here today interested
9 in this topic.

10 MS. MILES: Yeah, I can speak to Mr. Cashin. I
11 spoke with him during the break and he is not available on
12 Monday, he would be available on Wednesday. I'm not --
13 unfortunately he has prior commitments, he's not going to
14 be able to be here on Monday.

15 MS. SMITH: And we have a brief due on Friday.

16 HEARING OFFICER KRAMER: We understand that this
17 is a very compressed schedule, and we're doing the best we
18 can.

19 We're not going to finish, when we finish with
20 this panel, we're not done today with biology, so
21 Mr. Cashin can provide some of his testimony this evening.

22 MS. SMITH: This has all become very confusing
23 though, because Mr. Cashin to my knowledge has not had a
24 chance to review the new staff assessment, nor the
25 transcript of the opening testimony on the translocation

1 plan itself, and we were promised that the transcript for
2 August 5th would come out. It just came out a couple of
3 hours ago.

4 As I said in my objection, why that day wasn't
5 expedited when it was the one that everyone was most
6 interested in seeing. The other two came out, what, a
7 week or two ago, and we just now a few hours ago got the
8 transcript for August 5th.

9 HEARING OFFICER KRAMER: Well, they were all
10 supposed to be prepared in three days, I believe, it was,
11 two or three days.

12 MS. SMITH: But they weren't.

13 HEARING OFFICER KRAMER: Well, and that's
14 unfortunate, and that's one of the reasons why we've added
15 Monday's time to this schedule.

16 MS. SMITH: Sierra Club strongly objects to this,
17 and we are being prejudiced, we have real tried to go
18 along with this, and at this point it has ventured into
19 the area where our due process is being compromised,
20 and --

21 HEARING OFFICER KRAMER: Your objection is noted,
22 I don't want to spend the remainder of the time that the
23 agency folks have with us today arguing about that.

24 MS. SMITH: Fair enough. We're not available on
25 Monday.

1 MS. MILES: Can we take this up for a moment
2 though, once we finish with the agency panel?

3 HEARING OFFICER KRAMER: Certainly.

4 MS. MILES: Thank you.

5 MR. ADAMS: Mr. Huntley and Mr. White, is the
6 document we just talked about, second errata to this
7 supplemental staff assessment in your opinion to the best
8 of your knowledge true and correct?

9 MR. HUNTLEY: It is.

10 MS. WHITE: Yes, it is.

11 MR. ADAMS: Staff is marking that document 310,
12 Exhibit 310.

13 (Staff Exhibit 310 was
14 marked for identification.)

15 MR. ADAMS: Would you please very briefly
16 summarize the main points of the document?

17 HEARING OFFICER KRAMER: Well, hold on. I'm
18 confused now.

19 We're not talking about this second errata -- are
20 we talking about the second errata?

21 MR. ADAMS: We are, yes.

22 HEARING OFFICER KRAMER: All right. So that is
23 310, you're right. The supplemental staff assessment was
24 309.

25 MS. MILES: If I may, we haven't had a chance to

1 review that, so we can't really say whether we would
2 object to that coming into the record. Of course we
3 probably would not, but nevertheless, I don't think this
4 is correct procedurally, and I was under the impression we
5 were going forward with the agency panel rather than the
6 staff's witnesses.

7 MR. ADAMS: I think there is some logic in
8 quickly covering this document submitted yesterday because
9 I think it will be a focal point or at least one of the
10 major focuses of the remaining government agency
11 witnesses.

12 I don't expect to spend long on it.

13 HEARING OFFICER KRAMER: Okay. We'll overrule
14 the objection and note that we are already planning on
15 providing some additional time early next week --

16 MS. SMITH: So long as Sierra Club's objection --
17 strong objection is duly noted in the record.

18 HEARING OFFICER KRAMER: It's in there a couple
19 times now.

20 MS. WHITE: Very quickly, staff has made a few
21 revisions --

22 THE REPORTER: Please identify yourself.

23 MS. WHITE: I apologize. Scott White, energy
24 commission staff biology.

25 Very quickly, staff has made a few revisions to

1 proposed conditions of certification, these are largely in
2 response to discussion during the workshop held last week.
3 By and large, I think that we and the applicant and the
4 intervenors discussed -- discussed most of these proposed
5 revisions, and we've revised text to reflect that
6 agreement that we had as of last Wednesday.

7 These include revisions, some minor, some greater
8 to condition Bio 8, Bio 10, Bio 12, Bio 19 and Bio 21,
9 some further -- some further work has been done about the
10 desert tortoise, which we'll talk about a little bit more
11 including the conditions that affect that.

12 And Chris, maybe you could talk just a bit about
13 revisions to the desert tortoise analysis.

14 MR. HUNTLEY: This is Chris Huntley, biologist,
15 energy commission staff.

16 We made some revisions to the testimony and the
17 desert tortoise language in response to input from Fish &
18 Game. We provided a better description of the number of
19 tortoises that could occur, or expected to occur, some
20 adults, juveniles. We provided additional language on
21 translocation, locations, translocation mortality risks,
22 potential mortality risks at the proposed project site.
23 And we included language to the effect that staff believes
24 that additional translocation lands must be identified to
25 support the number of potentially translocated tortoises.

1 We also made some revisions to Bio 6 -- or Bio 15
2 and Bio 16 partially in response to applicant's comments
3 and Fish & Game's comments.

4 Thank you.

5 MR. ADAMS: In preparing the new analysis on
6 desert tortoise numbers on site that are going to be
7 affected, did you consult federal documents, the draft
8 translocation plan final impact statement?

9 MR. HUNTLEY: Yes. Yes, sir we did. We've
10 reviewed the translocation plan, the BA, the -- pardon me,
11 the FEIS, we've consulted with BLM, Fish & Game and the
12 service on changes to the document.

13 MR. ADAMS: Okay. At this point we have more
14 questions of staff witnesses, but I think it makes sense
15 to defer those and then turn on the tortoise issue to the
16 panel. And for that purpose, I'd like to ask Fish & Game
17 representatives -- I believe Ms. Moore testified on
18 August 5th that because of the number of desert tortoises
19 were not -- well, to try to capsulize what our original
20 supplemental staff assessment said, that it identified the
21 number of located tortoises on site during surveys without
22 running those numbers through projections to account for
23 undetected tortoises during that survey. That is what
24 Mr. Huntley has been done now.

25 And I'd like to know if Ms. Moore or Ms. Jones

1 have had an opportunity to review the revised supplemental
2 staff assessment on the issue of the tortoise numbers.

3 MS. MOORE: This is Tanya Moore from the
4 department, and I reviewed it briefly, but I looked over
5 it, the tables pretty good. I didn't have a chance to go
6 through again.

7 MR. ADAMS: Okay. Quick analysis, and what did
8 you say was good? I'm sorry, I didn't hear.

9 MS. MOORE: I didn't say good, I just said I
10 looked at them pretty well, I looked at them pretty well.

11 MR. ADAMS: Let me put some words into your
12 mouth.

13 Just joking.

14 Do you have any initial assessment as to the
15 numbers in that report and whether it seems to do an
16 adequate analysis in your eyes on the -- in identifying
17 the impacts on tortoises on site?

18 MS. MOORE: Okay. The department -- first, it
19 should be noted, the department has never permitted or
20 when we do incidental take permits ourselves, have not
21 permitted a project this large for this amount of
22 tortoises.

23 In fact, the region has never permitted this
24 number, and the largest number of desert tortoises
25 permitted by the department in incidental take permit that

1 I could find was one that went up to about 54 desert
2 tortoises.

3 So evaluating this information and analyzing it
4 is actually at this scale is a first for the department.
5 And so we're trying to make sure that we're analyzing it
6 correctly.

7 That said, as far as the information that was in
8 here, I believe that it -- it is not adequate enough to
9 determine whether this project is fully mitigated for.
10 It's lacking some information.

11 The -- there are areas that show that the
12 department and the staff did have some disagreement on
13 those -- on what numbers we should actually have used, but
14 I believe the staff used numbers that I had put in there.
15 I'm not exactly certain, I'm just disagreeing with the --
16 or the department's disagreeing with the conclusion that
17 was made that it's fully mitigated for.

18 We have some proposals, the department has some
19 proposals for what -- how we think that it could be except
20 for the recipient and host populations, we still are --
21 recipient or host populations, however you want to say it.
22 We believe that has not been adequately analyzed within
23 this document, even though previously we had thought the
24 translocation plan, although we had not read it, would
25 adequately address that. However, stating -- it does now

1 state that more translocation sites are required.

2 So if you'd like to hear what the department
3 would propose for full mitigation --

4 MR. ADAMS: Well, certainly, but maybe just a
5 more -- to understand what you're saying about the -- your
6 position on the adequacy of the document as information
7 disclosure.

8 Are you talking about the host populations
9 identified into the translocation, draft translocation
10 plan?

11 MS. MOORE: I am talking about all the
12 information identified within the staff assessment and the
13 translocation plan.

14 As you will see, the staff assessment, the table
15 that is in the document on the -- should I say what page
16 and stuff? -- on the errata that submitted, she is
17 numbers were not addressed originally. So what we're
18 analyzing are these numbers that are in this table and
19 whether these numbers we're using the correct assumptions
20 for those numbers. I am not -- it is not the department's
21 position that those numbers are incorrect, it is that we
22 are working on the assumptions because as you will see, if
23 you look at the translocation guide also, their table
24 numbers are different.

25 MR. BASOFIN: Sorry, this is Josh Basofin, can we

1 get a page number?

2 MS. MOORE: Oh, I'm sorry. For both? Okay.

3 In the errata on page 5 is the table, biological
4 resource Table 6A. And then on the translocation guide, I
5 believe it's Table 7. Both of them were docketed.

6 All the department is stating is that right now
7 with the information that we have before us, it is not
8 possible for -- at this time to determine which chart,
9 what the numbers were, what the assumptions were. The
10 assumptions within the CEC document are 50 percent,
11 however, I have different -- my table came out a little
12 different than Chris's.

13 MR. ADAMS: Tanya, there's some confusion here at
14 our table because of -- hello?

15 We were under the impression that the 50 percent
16 number, 50 percent mortality was a number that Fish & Game
17 asked CEC to apply in its analysis.

18 MS. MOORE: The 50 percent number is what I asked
19 CEC to apply. It's how it was applied. And it's not just
20 that, it's how we -- how we use the formula, the
21 mathematical formula that U.S. Fish & Wildlife Service
22 has, and how you plug those numbers apparently can give
23 you different numbers that come out.

24 And we want the analysis using 93, as you can see
25 on chart page 5, 93 is used on both charts but the numbers

1 are not the same.

2 So some assumptions are not identified or it was
3 unavailable to us to determine that. However, using the
4 numbers that are on this chart we do not believe this
5 project is fully mitigated for as proposed.

6 MR. ADAMS: Okay. And I -- you said you had some
7 thoughts on that and I took you back to the numbers. Why
8 don't you give us your thoughts.

9 MS. MOORE: Okay. First, let's state that
10 this -- that Phase 1 excluding the detention basin, we're
11 okay with -- I mean, if you were going to use this
12 translocation for just that portion, that would probably
13 be adequate. As we all know the densities in that area is
14 much lower.

15 However, using it for the detention basin in
16 Phase 2, then we must -- we must -- if we're using the
17 information that we have in front of us, then we must
18 assume that the mitigation has not been adequately
19 addressed, the reason being the high density, when this
20 was assumed, it was assumed over the entire project site.
21 But really on your -- on the chart given to us, and again,
22 I'm going to have to go through the plan, so just a second
23 here.

24 And this isn't -- let's see. Sorry, the
25 translocation plan is very large.

1 HEARING OFFICER KRAMER: Where was that table in
2 the translocation plan you were referring to?

3 MS. MOORE: The sixth one that was sent to me.
4 I'm not really sure.

5 So on Figure 9 in the translocation plan, I'm
6 sorry, I'm putting you in another area, we show that --
7 you show the high density, the low density, medium density
8 of desert tortoise. We're not -- we're just stating that
9 the high density -- (phone connection breaking up.)

10 So what we are proposing as Fish & Game, and this
11 is just a proposal we can work with, is that for the
12 project site and for the impacts of desert tortoise on the
13 project site, the high density areas should be mitigated
14 at a 5-1 ratio. This would include Phase 1A detention
15 basins, and then Phase 2 -- sorry, 1B, excuse me. Is that
16 1B, the detention basin? 1B.

17 Then, from what we have at the translocation
18 sites, since at this particular time, it appears in this
19 document, and it appears to us that we don't have enough
20 translocation areas, we cannot anticipate and/or analyze
21 what will happen to the recipient/host, depending on how
22 you say it, population with the information that we have.
23 And therefore, we're stating that we need -- we need more
24 information to proceed with that.

25 MR. ADAMS: More information on additional host

1 sites or more information about the identified sites or
2 both?

3 MS. MOORE: The identified sites, I believe have
4 given us the information, but as stated in the staff
5 assessment, they're -- it is now been known that the DWMAs
6 can only accept a smaller portion of desert tortoises than
7 anticipated.

8 And within that staff assessment, it does state
9 that more translocation areas need to be identified. What
10 we're stating is it is hard to analyze what will happen to
11 a host population when you're not sure where the host
12 population is and/or all the impacts of that host
13 population.

14 MR. ADAMS: And it's your position that should be
15 part of the staff assessment rather than the translocation
16 plan.

17 MS. MOORE: I believe that in order -- or the
18 department believes, excuse me, that in order to fully
19 assess this, you need to know what the impacts will be to
20 the host population. There will be impacts to the host
21 population. And exactly what those impacts will be is
22 not -- I don't know if it has been fully evaluated, and it
23 definitely has not been evaluated in areas that we have
24 not even identified as of yet.

25 MR. ADAMS: I'd like to break with protocol if

1 it's okay with Hearing Officer Kramer, just to have Chris
2 Huntley is immersed in these numbers and would like to
3 offer an explanation of the difference in the table
4 numbers that Ms. Moore asked about, if that's okay.

5 HEARING OFFICER KRAMER: Go ahead.

6 MR. HUNTLEY: Tanya, this is Chris Huntley.

7 MS. MOORE: Hi, Chris.

8 MR. HUNTLEY: Biological resources Table 6A which
9 has the different tortoise numbers, are you looking at
10 that?

11 MS. MOORE: Just one second.

12 Yes.

13 MR. HUNTLEY: Well, let me backtrack.

14 I provided assumptions of how all the numbers
15 were provided. Going to the beginning, using the Fish &
16 Wildlife formula that was identified in the BA, the FEIS,
17 and I believe the original translocation plan, identified
18 an estimate of 93 adult and sub-adult tortoises on the
19 proposed project, correct?

20 MS. MOORE: This is the largest (phone connection
21 breaking up.)

22 MR. HUNTLEY: And that the 95 confidence level
23 for those was between 47 and 185 tortoises, meaning that
24 we're 95 sure we have somewhere between 47 and 185
25 tortoises.

1 For the purposes of this analysis, we utilized
2 the 93, okay? So that number shouldn't change. What does
3 change is the numbers of juveniles, which may be where you
4 have some concern.

5 In the original FEIS, in the original BA, using
6 the Turner equation, the applicant and all of us
7 originally identified that the juvenile population would
8 be 31.1 to 51.1 percent of the adult population.

9 It turns out that Fish & Wildlife Service
10 indicated that that's not true, that that formula is a
11 percentage of the total population.

12 So I recalculated the numbers to accurately
13 assess what 31.1 to 51.1 percent of the total population
14 would be. So the number of juvenile tortoises that could
15 occur in the proposed project site went from a lower
16 number to a higher range of numbers. That's why we have a
17 low of 41 juveniles to a high of 96 juveniles.

18 Later in the text, and you may not see it in
19 here, but the reason we come up with different estimate on
20 the number of tortoises that may be subject to
21 translocation and/or translocation mortality, is staff
22 utilized the success ratio by the applicant of finding
23 juvenile tortoises to calculate how many juvenile
24 tortoises we felt we would find during the translocation
25 survey. So we figured they would find 15 percent, and

1 then 85 percent of those juvenile tortoises would be
2 subject to mortality or at least, you know, translocation
3 at a later time. That's why those numbers are a little
4 bit different from what you see in the translocation plan
5 and the BA.

6 The rationale for that is provided below the
7 table. And I know you have not had an opportunity to
8 review the text extensively, but I believe we provided a
9 rationale for that in the staff errata.

10 MR. ADAMS: Thanks, Mr. Huntley.

11 We would like to invite Mr. Terry O'Brien to talk
12 about this from the staff perspective. This is fairly new
13 news to us and seems appropriate.

14 HEARING OFFICER KRAMER: Welcome, Mr. O'Brien.

15 MR. O'BRIEN: Good afternoon. Just a brief
16 comment in response to what Tanya from Fish & Game has
17 said.

18 Obviously the energy commission has worked very
19 closely with the other renewable energy action team
20 agencies in the area of biology, and in fact --

21 HEARING OFFICER KRAMER: Commissioner Byron asked
22 a good question, which is are you offering testimony?

23 MR. O'BRIEN: I'm offering comments --

24 HEARING OFFICER KRAMER: Or argument?

25 In other words, do you need to be sworn in as a

1 witness?

2 MR. O'BRIEN: I don't know, that would be up to
3 you Hearing Officer Kramer.

4 HEARING OFFICER KRAMER: I tell you what; in case
5 you should stray, could you raise your right hand.
6 Whereupon,

7 TERRY O'BRIEN
8 was called as a witness herein and, having been first duly
9 sworn, was examined and testified as follows:

10 HEARING OFFICER KRAMER: Carry on.

11 MR. O'BRIEN: As I was saying, the energy
12 commission staff has worked cooperatively and closely with
13 the other renewable action team agencies, the Bureau of
14 Land Management, U.S. Fish & Wildlife Service, and
15 California Department of Fish & Game on this project and
16 all the ARRA projects in front of us, both on biology on
17 the other technical areas.

18 And listening to the comments from the Fish &
19 Game representative earlier, I just wanted to make a
20 comment representing the energy commission staff. And
21 that is that to the extent that Fish & Game believes that
22 under the California Endangered Species Act, CESA, that
23 additional mitigation is needed to fully mitigate this
24 project. The energy commission staff accepts those
25 comments and those recommendations from the Department of

1 Fish & Game and would be supportive of that.

2 HEARING OFFICER KRAMER: Thank you.

3 Does anybody, any party have any questions for
4 Mr. O'Brien about that statement?

5 Seeing none. Thank you.

6 MR. BASOFIN: I guess --

7 HEARING OFFICER KRAMER: Do you have a question?

8 MR. BASOFIN: Yes, I guess my question would
9 be -- this is Josh Basofin at Defenders of Wildlife. If
10 staff would be supportive of the D F G's new or additional
11 recommendations, would they then be included in an
12 additional staff errata to the extent that they are
13 distinguished from the current staff errata?

14 HEARING OFFICER KRAMER: To ask it another way,
15 how many conditions would that effect? The condition
16 about mitigation lands for sure because that uses an
17 acreage figure and comes to a dollar value. But would
18 there be many others?

19 MR. ADAMS: I think largely the desert tortoise
20 compensation measure, Bio 17, I think it is. And
21 obviously it changes some analysis as well in the
22 supplemental staff assessment. So we haven't quite gotten
23 there yet, but I guess it may be another errata or
24 addenda.

25 HEARING OFFICER KRAMER: Well, I think from the

1 committee's perspective it's not necessarily for the staff
2 to agree with a formality of a completely rewritten
3 analysis with Fish & Game. We can rely on Ms. Moore's
4 testimony to a degree, we probably will have a lot of
5 questions for her. But certainly an offer of a revised
6 condition and the bio condition you mentioned to contain
7 the correct numbers on that 5-1 basis would be helpful.

8 So Mr. Basofin, I don't think that -- we're not
9 talking about taking a time out for a couple weeks to have
10 a new analysis or anything like that, if that answers your
11 question.

12 MS. MOORE: I have a question.

13 Tanya from Department of Fish & Game again.

14 HEARING OFFICER KRAMER: Go ahead.

15 MS. MOORE: When you say the staff accepts that,
16 do they also accept that the translocation areas need to
17 be identified?

18 HEARING OFFICER KRAMER: That would be for
19 Mr. O'Brien, I guess.

20 MR. O'BRIEN: I think we need some further
21 discussion on that issue today to further understand what
22 that means vis-a-vis the impact on this project moving
23 forward. So the staff did have some discussion during the
24 lunch hour on that issue, and I think we need to
25 understand more fully what implication that has on the

1 project's ability to move forward.

2 MS. MOORE: Okay.

3 HEARING OFFICER KRAMER: Okay. Do you want to
4 continue, Mr. Adams with the other panel members?

5 MR. ADAMS: Well, I think at this point if it
6 makes sense to the hearing officer, I'd suggest we throw
7 it open for the desert tortoise issues that have been
8 raised.

9 I have no further questions at this point on
10 that, and then with the understanding that we can circle
11 back on some other loose ends that I'd like to hear from
12 our witnesses on.

13 HEARING OFFICER KRAMER: Okay. Well, Mr. LaPre
14 was the, I think the first to need to leave, so Mr. LaPre
15 would you like to make any particular comments in response
16 to what you've heard so far?

17 MR. LAPRE: Well, the Bureau of Land Management
18 is the owner and manager of the recipient sites, and if
19 we're going to have a major change or expansion to the
20 location of those or the area of those, I don't think we
21 should do that lightly. And that the BLM should be
22 involved in that. And the same goes for the other
23 condition on mitigation. A casual acceptance of a change
24 from what was 2-1 to 5-1 and will amount to millions of
25 dollars should be carefully considered. That's about all.

1 Chris Otahal and I have reviewed the
2 translocation plan in detail and including the Phase 1
3 plan.

4 MR. OTAHAL: I can't, and I can actually speak to
5 that a little bit.

6 In terms of the receptor areas, these new numbers
7 have come up in the last couple of weeks or so, and in
8 coordinating with the Fish & Wildlife Service, we know
9 that we're not utilizing all of the area in the Ord Rodman
10 DWMA where we currently now have identified the receptor
11 area. So what we were intending to do is to expand those
12 areas so we are not quote, unquote, at the upper limit of
13 our receptor area, we just need to expand it, that it
14 would still remain in the Ord Rodman. And the idea was to
15 address that basically a little bit further down the road
16 as we start moving these tortoises, because the numbers
17 are very rough guesstimates of what the numbers of animals
18 are out there. And until we actually start moving them,
19 we're not going to know exactly how many animals we're
20 going to be moving and how much additional area we will
21 need.

22 And if you do read the translocation plan this is
23 one of those adaptive management type of scenarios that is
24 anticipated, because we fully understood that we may run
25 out of receptor area during the translocation. I mean

1 that was anticipated.

2 Right now, we had some data earlier than we were
3 anticipate to go see that, okay, we may be running out of
4 room on the areas that we have already identified and that
5 we have already done our surveys, but again, we were fully
6 intending in adaptive management standpoint to be
7 expanding those areas if need be.

8 HEARING OFFICER KRAMER: Okay. Thank you.

9 PRESIDING MEMBER EGGERT: Actually, can you
10 describe "adaptive management" just real quickly?

11 MR. OTAHAL: Yeah, the concept is that as we go
12 along on something, especially as complicated as the
13 translocation plan, we're not going to anticipate all of
14 the issues that will come up from the beginning. So as we
15 start to implement the plan, there are going to be things
16 that come up that we did not anticipate.

17 Again, one of these that we at least had on the
18 radar screen that may be an issue is having more tortoises
19 than we have room in our receptor areas. And so this
20 would be one of those that we would have been revisiting
21 later down the road, but now we do have the data up front.
22 You know, it just came sooner than starting to the
23 implement the plan. And that's because the numbers of
24 tortoises has been changed based on different equations
25 that are being applied to the tortoises, rather than any

1 real change to the tortoise population itself. So it's
2 really how it's being estimated right now is what's
3 driving this.

4 And also, the densities of animals that we can
5 move into the translocation areas, because that has
6 dropped now that we are starting to go through the
7 consultation process with Fish & Wildlife, it looks like
8 the numbers that we were anticipate to go move into the
9 translocation area has gone down a little bit, not a lot,
10 but it has a little bit, and that's causing some of this
11 friction as well.

12 PRESIDING MEMBER EGGERT: Okay. Thank you.

13 Yeah, I guess just maybe a clarification question
14 for Ms. Moore or Mr. Otohal.

15 The proposal or the suggestion for the 5-1, the
16 areas that that relates to you'd said were -- could you
17 repeat that?

18 MS. MOORE: The areas for the 5-1 would be in the
19 high density locations as identified in the --

20 HEARING OFFICER KRAMER: This is Tanya Moore?

21 MS. MOORE: Yeah, this is Tanya Moore, sorry.

22 They would be related to the high density areas.
23 In particular, that would be the north portion of Phase 2,
24 and I believe all of Phase 2, excuse me, I misspoke there,
25 and the detention basins.

1 MS. BELLOWS: Excuse me. Is that everything
2 north of the railroad, is that what you were calling it?

3 MS. MOORE: No. No.

4 MS. BELLOWS: No?

5 MS. MOORE: Not everything above the railroad.

6 I'm trying to get a map for you so that I can
7 explain it better.

8 HEARING OFFICER KRAMER: Because Phase 2 is both
9 above and below the railroad.

10 MR. OTAHAL: Yeah, what I believe --

11 MS. MOORE: Okay -- I'm sorry.

12 MR. OTAHAL: What I believe you were implying
13 Tanya is basically the Phase 2 area that is north of the
14 railroad is where the 5-1 would be applied.

15 MS. MOORE: Correct. Right. We're not changing
16 what was already there for 3-1. So that would be 3-1
17 there, the portion south of the railroad would be 1-1, 3-1
18 locations should stay the same except where it hits those
19 high density areas.

20 MS. BELLOWS: Do we have an approximate acreage
21 on that? I'm still a little unclear on what area we're
22 referring to.

23 MS. MOORE: Okay. In -- could we pull up the map
24 please that has the Phase 1A and Phase 1B? I think you
25 guys had that earlier.

1 I'm not online, so I can't actually --

2 MS. BLACKFORD: This is Ashleigh with the
3 service. I just think this will help everybody else see
4 what we're talking about.

5 So the map's up now, Tanya, so you could --

6 MS. MOORE: And which map is it?

7 MS. BLACKFORD: It's the one that divides
8 Phase 1A and Phase 1B and then you can see that Phase 1 --
9 sorry, Phase 2 that starts adjacent to not a part area one
10 is the area that I believe Tanya is referring to.

11 HEARING OFFICER KRAMER: So that's Exhibit 99, if
12 I recall correctly.

13 MS. BLACKFORD: Section numbers or --

14 MS. MOORE: So I am not, I did misspeak in the
15 fact that the south portion is in Phase 2 and I was not
16 mentioning the southern portion under the railroad when I
17 said Phase 2. I meant the north portion of Phase 2.

18 MS. BELLOWS: Okay. But I'm still unclear.
19 North of the railroad, what is 3-1 and what is 5-1?

20 MS. MOORE: Okay. We can clear that up.

21 The red lines that show your Phase 1,
22 approximately, would be still 3-1. And the area above
23 that would be 5-1.

24 MS. BELLOWS: So everything -- let me see if I
25 understand this. Everything in Phase 2 north of the

1 railroad plus the detention basins is 5-1; is that what
2 you're saying?

3 MS. MOORE: No.

4 I'm sorry, in Phase 2 above the railroad, yes.

5 MS. BELLOWS: Do you happen to have section
6 numbers?

7 MS. MOORE: No

8 MS. BLACKFORD: This is Ashleigh with the service
9 again. I believe that she's referring to Section 2,
10 Section 6, Section 5 and then it goes off screen for me,
11 as well as Section 35 and 32. And the wee portions of 31
12 and the adjacent portion that is also included in the
13 detention basin.

14 MR. OTAHAL: Actually, I can give you some
15 numbers, Felicia.

16 Looking at Table 2 in the translocation plan --

17 MS. BELLOWS: Okay.

18 MR. OTAHAL: For the northern detention basins,
19 the acreage is 451 acres. And then the Phase 2 north of
20 the railroad is 1,747 acres. So those two numbers
21 totalled would be the 5-1.

22 MS. BELLOWS: Okay. Got it, thanks.

23 MS. MILES: Can you repeat it one more time,
24 please?

25 HEARING OFFICER KRAMER: I think that was for

1 Mr. Otohal.

2 MR. OTAHAL: Yes. Okay. The numbers are coming
3 from Table 2 on page 1-4 of the translocation plan. It
4 shows the acreages for the various parts of the project.
5 And for the northern detention basins, which is the third
6 line down, that is 451 acres, and then for Phase 2 north
7 of the railroad is 1,741 acres. And I believe those are
8 the two numbers that we need to add to 5-1.

9 MS. FOLEY GANNON: So, Chris, to clarify on that,
10 going on that same table, it starts off with the Phase 1
11 north of the railroad at 1876, that would be 3-1? Phase 1
12 north --

13 MR. OTAHAL: Yes, that's my understanding.

14 MS. FOLEY GANNON: -- North detention basin, four
15 51 would be 5-1, Phase 2 north of the railroad between
16 Phase 1, 1747 at 5-1, and Phase 2 south of the railroad
17 2139 at 1-1. Is that your understanding?

18 MR. OTAHAL: Yes, that's my understanding.

19 MS. MOORE: And I want to clarify one thing that
20 Larry LaPre said for 2-1 to 5-1. This 5-1 does include
21 BLM still having their 1-1.

22 MR. LaPRE: Yeah, I think I misspoke on that 2-1.

23 HEARING OFFICER KRAMER: So then it would be 4-1
24 plus 1-1; is that what you're saying?

25 MR. OTAHAL: Yeah, that's how we've been handling

1 it. And so south of the railroad, the quote, unquote, BLM
2 counts 1-1 counts for all the mitigation; then where the
3 2-1 is applied our 1-1 is applied, so it's only an extra
4 1-1 for the state, and now it would be an extra 4-1 for
5 this new area for the state.

6 HEARING OFFICER KRAMER: Okay. Any other
7 comments from the panelists before we open you up to
8 questions from the applicant and others?

9 MR. LaPRE: I comment that the total is 2,198.

10 HEARING OFFICER KRAMER: That was Mr. LaPre?

11 MR. LaPRE: Yes.

12 HEARING OFFICER KRAMER: Thank you.

13 Okay.

14 PRESIDING MEMBER EGGERT: Actually, I have a
15 quick question for a -- a clarification for the applicant.

16 In terms of the proposed sequence of activity, we
17 now have the Phase 1A proposal and then Phase 1B, is the
18 proposed intent to proceed with Phase 1B without
19 developing Phase 2 simultaneously?

20 MS. FOLEY GANNON: That's correct.

21 PRESIDING MEMBER EGGERT: And that includes the
22 retention ponds in the northern portion?

23 MS. BELLOWS: No, the detention basins are part
24 of Phase 1B.

25 PRESIDING MEMBER EGGERT: So in terms of that

1 Phase 1B, it's basically everything else that wasn't done
2 in Phase 1A, including the detention ponds.

3 MS. BELLOWS: It's everything that was part of
4 Phase 1.

5 PRESIDING MEMBER EGGERT: Right. Okay. Thank
6 you.

7 HEARING OFFICER KRAMER: I guess I have one
8 question for Ms. Moore.

9 If the mitigation ratio is increased to 5-1
10 total, is it then your opinion that that fully mitigates
11 impacts to the tortoises -- tortoise taking into account
12 the mortality rate, some mortality rate, I suppose that
13 exact rate is probably going to be debated a little later.

14 MS. MOORE: I'm not sure I understand exactly
15 what the question is, but it takes into account all
16 impacts to desert tortoise on the site with the caveat
17 that we still need the information for the translocation
18 area.

19 HEARING OFFICER KRAMER: Okay. So then you in
20 your mind it sounds as if you're separating loss of
21 habitat from loss of life for the tortoises who are found
22 and moved; is that correct?

23 MS. MOORE: No. I do not believe so. I'm --
24 I'm -- on this site the assumptions that we had made, the
25 mitigation would be at that level for those tortoises.

1 That includes moving those tortoises, but does not include
2 what will happen to the host population since I don't have
3 that information.

4 HEARING OFFICER KRAMER: Okay. So it doesn't
5 include the impacts to the host population at the
6 relocation sites.

7 MS. MOORE: Correct. It's simply because I do
8 not have that information.

9 HEARING OFFICER KRAMER: Okay, but then the --
10 possibility that some of the tortoises will not survive
11 translocation is accounted for or mitigated in your view
12 by the provision of the habitat mitigation lands?

13 MS. MOORE: Correct.

14 HEARING OFFICER KRAMER: Okay. Thank you.

15 Applicant, do you have any questions for any of
16 the panelists?

17 MS. FOLEY GANNON: Yeah.

18 HEARING OFFICER KRAMER: Okay.

19 MS. FOLEY GANNON: Before we really get into the
20 substance of our questions, I think I would make a
21 proposal which I hope you can indulge us in.

22 I do have a question would like to ask Ashleigh
23 from the service, or maybe you could ask her because we're
24 not supposed to ask her questions directly, but to hear
25 her reaction to this. And then I would like to ask if we

1 could have ten or 15 minutes as you can imagine as
2 Mr. LaPre said it's rather stunning to hear what we just
3 heard and the implications from what we just heard, are,
4 as you can appreciate, quite immense. So I would like to
5 have a moment to be able to talk to our biologist and the
6 client and figure out how I want to approach this.

7 HEARING OFFICER KRAMER: Okay. That will risk
8 losing some of these folks.

9 MS. FOLEY GANNON: Can I pick which ones?

10 HEARING OFFICER KRAMER: Oh, that's nice.

11 MS. FOLEY GANNON: Just joking.

12 HEARING OFFICER KRAMER: I'm sure what you meant
13 was a pleasant vacation for them where there are no phones
14 or Internet access.

15 MS. FOLEY GANNON: Absolutely, you paraphrased me
16 perfectly, or interpreted me perfectly.

17 But I really feel I do need to have -- and I
18 understand the risk of that, but I think we really do need
19 a moment to discuss how to proceed from here.

20 HEARING OFFICER KRAMER: Okay. Ms. Blackford
21 then, Ms. Gannon is going to read my mind and ask you a
22 question.

23 MS. FOLEY GANNON: What Hearing Officer Kramer
24 was interested in knowing is whether -- your response to
25 this proposal and the assessment of these impacts.

1 MS. BLACKFORD: The service's position in regards
2 to the mitigation that Fish & Game is discussing is really
3 that it's -- that's outside of our jurisdiction and what
4 we look at. So in terms of addressing mitigation, I don't
5 really have any comment on that.

6 As far as looking at and having to analyze the
7 additional translocation areas in order to assess the
8 project, currently the service will -- is proceeding with
9 the project as it was initially proposed, and any
10 expansion of the translocation areas would result in a
11 change in the project, and that would trigger a
12 reinitiation for that expansion.

13 We are, as I believe Chris Otohal alluded to,
14 intend to go proceed with what was proposed, and if the
15 number of desert tortoises does require additional
16 translocation areas, we will -- we intend to reinitiate
17 and examine those impacts at that time.

18 MS. FOLEY GANNON: Just so I understand, I
19 understand you're making an opinion about what's required
20 under state law, but did you have a similar sense about
21 the mitigation requirements under federal law?

22 MS. BLACKFORD: The service does not require
23 mitigation. That's a bureau --

24 MS. FOLEY GANNON: Right, in assessing the level
25 of impacts and looking at whether this would and a

1 jeopardy call and the overall effect, were you thinking
2 that a similar sort of offset would be appropriate or
3 possibly required?

4 MS. BLACKFORD: I guess I don't quite understand
5 how to answer your question other than I -- I agree that
6 the density of tortoises are higher in the areas that
7 Fish & Game has addressed.

8 MS. FOLEY GANNON: Okay.

9 MS. BLACKFORD: I'm not quite sure -- anything
10 that I were to say, I can't make any statements that would
11 be pre-decisional, and so I'm not quite sure --

12 MS. FOLEY GANNON: You have standard ratios that
13 are kind of used as a rule of thumb, and I realize again
14 you don't require mitigation, and you would obviously in
15 issuing a biological opinion look at the specifics of a
16 site, but is 5-1 in the sort of range that you've seen in
17 other biological opinions?

18 MS. BLACKFORD: I have seen it in other
19 biological opinions, and the standard ratios are the
20 bureau's, not the service's.

21 MS. FOLEY GANNON: Okay. Thank you.

22 HEARING OFFICER KRAMER: Do any other parties
23 have -- well, let's see, have questions along the lines
24 we've just been discussing?

25 Does anybody have any -- Mr. LaPre, are you still

1 there?

2 MR. LaPRE: I'm still here, but I'm going to --

3 HEARING OFFICER KRAMER: Okay. Does anybody have
4 anything for him, because he wants to leave real soon?

5 Okay. Seeing nothing, thank you Mr. LaPre.

6 MR. LaPRE: Thank you.

7 HEARING OFFICER KRAMER: All right so Ms. Gannon,
8 you'd like to break now?

9 MS. FOLEY GANNON: That would be wonderful, thank
10 you.

11 HEARING OFFICER KRAMER: And what do you need,
12 about 15 minutes?

13 MS. FOLEY GANNON: That would be great. We
14 appreciate it.

15 HEARING OFFICER KRAMER: Okay. Do we have some
16 people with parking issues?

17 Does it make sense to have the dinner break now?

18 (Discussion beyond range of microphone.)

19 HEARING OFFICER KRAMER: You needed about
20 45 minutes? I mean, I wasn't here with you the last time.

21 MR. RITCHIE: Mr. Kramer, just to be clear, the
22 rest of the panel will be available post dinner.

23 HEARING OFFICER KRAMER: Well, we're probably
24 going to lose --

25 MR. RITCHIE: Because we have some questions.

1 MS. FOLEY GANNON: Can we see if they're going to
2 be available, at the service and the other agencies?

3 HEARING OFFICER KRAMER: Ms. Blackford, when do
4 you have to leave us?

5 MS. BLACKFORD: Well, depending on, I mean, I can
6 go home and call in from home, but you know, I would --
7 I'm not quite sure -- I started waiting for you guys at
8 9:00 this morning. It's -- I would -- I think it's
9 important to be able to provide the service's input on
10 translocation on this plan, so I can call in, but it's
11 going to take me 45 minutes to go home whenever I leave
12 the office.

13 HEARING OFFICER KRAMER: Okay. That shouldn't be
14 a problem.

15 MS. FOLEY GANNON: How about Fish & Game?

16 HEARING OFFICER KRAMER: Ms. Moore?

17 MS. MOORE: Yes. I'm available. I don't know if
18 my phone will last, but I'm available.

19 HEARING OFFICER KRAMER: Okay. Who else was
20 left? Is that it?

21 MS. FOLEY GANNON: How about Becky Jones.

22 HEARING OFFICER KRAMER: Ms. Jones?

23 MS. JONES: Well, I was hoping to take off.

24 HEARING OFFICER KRAMER: Well, can Ms. Moore
25 handle things for you, you think?

1 MS. JONES: I think so.

2 HEARING OFFICER KRAMER: Okay. Well, if you can
3 rejoin us, that would be great.

4 Okay. What about our -- I think our other big
5 issue was the cultural issue. Do those witnesses have
6 constraints?

7 MR. BABULA: This is Jared, I don't have a
8 constraint, I don't know if Mike -- I don't know where
9 they are, if they're down there.

10 MS. HOLMES: They're here.

11 HEARING OFFICER KRAMER: Okay. Mr. Meyer has
12 that under control.

13 MS. FOLEY GANNON: How about doctor hunter?

14 DR. HUNTER: Yes, I am here, and I will stay till
15 the end.

16 HEARING OFFICER KRAMER: We greatly appreciate
17 that, and thank you for your patience thus far.

18 DR. HUNTER: But I could solve this all in five
19 minutes, just do what I say.

20 HEARING OFFICER KRAMER: You know, it takes more
21 than five minutes, even if we did that.

22 Okay.

23 MS. MILES: CURE has a witness too. I'm not able
24 to check in with him, so I can't say for sure, but I mean,
25 I can check in with him by e-mail, but I can't say for

1 sure right now how late he's available, and I don't know
2 how late you anticipate going.

3 HEARING OFFICER KRAMER: Nor do I.

4 Okay. Well, if you could just check and let us
5 know.

6 Okay. We'll take a full hour, so be back here at
7 6:30 That will let people move their cars right after
8 6:00. And thank you for your patience, so we're off the
9 record.

10 (Dinner recess.)

11 HEARING OFFICER KRAMER: Welcome back. How many
12 of our bio witnesses have made it back with us on the
13 telephone? I don't see anyone signed in by name.

14 MS. MOORE: I'm here, Tanya Moore.

15 HEARING OFFICER KRAMER: Thank you.

16 MS. BLACKFORD: Ashleigh Blackford's here, but
17 I'm on a cell phone, so muting and un-muting is going to
18 take a little longer, so be patient for my response.

19 HEARING OFFICER KRAMER: We'll consider you to
20 have been thoughtful.

21 Okay. Couple housekeeping items.

22 Dr. Greenberg is wondering if we're going to get
23 to him night, but also he's realizing he's probably going
24 to have to come back the next time because of a couple
25 outstanding -- or a couple newly raised, or at least

1 one -- I don't want to scare anybody -- at least one newly
2 raised issue. So does anybody object to taking -- that
3 would be worker safety --

4 MS. HOLMES: And hazardous materials.

5 HEARING OFFICER KRAMER: -- and hazardous
6 materials.

7 Does anyone object to putting those over until
8 our next and last guess together?

9 MS. FOLEY GANNON: So that means we are
10 officially all gathering again for sure?

11 HEARING OFFICER KRAMER: It would seem like it,
12 yes.

13 MS. FOLEY GANNON: I'm still hopeful.

14 I mean, if we are going to extend beyond, it
15 certainly makes sense to do that issue.

16 HEARING OFFICER KRAMER: Well, we have the
17 concerns of the intervenors about all the new information.
18 And so that is in our minds.

19 MS. HOLMES: Dr. Greenberg informs us he only
20 available --

21 HEARING OFFICER KRAMER: Mic. Mic.

22 MS. HOLMES: Dr. Greenberg has informed us that
23 he's only available on Monday, not on Wednesday, which is
24 another day that had been discussed.

25 Let me just informally ask Dr. Greenberg, how

1 long do you think it will take you to -- would it be
2 possible to come up with a response to the new information
3 about the perimeter road tonight, or do you need a couple
4 of days to do that work?

5 DR. GREENBERG: I already have a response --

6 HEARING OFFICER KRAMER: Chris, could you turn on
7 your mic so he --

8 DR. GREENBERG: Alvin Greenberg, staff for
9 haz mat and worker safety fire protection.

10 HEARING OFFICER KRAMER: Now, you're over doing
11 it, back off.

12 DR. GREENBERG: I am prepared tonight to go
13 overall the issues, either it's Worker Safety 6, Worker
14 Safety 7 and, and then some changes to Haz Mat 5, and then
15 changes to Worker Safety 2. The latter two in response to
16 this perimeter road.

17 However, the intervenor BNSF has already
18 indicated that due to a late receipt of my proposed
19 changes to Worker Safety 6, that they would like to have
20 some additional change to review and evaluate that. If
21 they should change their mind, I'm willing to stay as late
22 as you would like this evening.

23 I am available on Monday, unfortunately I'm not
24 available next Wednesday.

25 HEARING OFFICER KRAMER: Not even by telephone?

1 DR. GREENBERG: No. Unfortunately I'm -- I'm
2 doing an occupational safety and health audit down in
3 San Luis Obispo.

4 HEARING OFFICER KRAMER: Mr. Lamb, have you had
5 more time to consider --

6 MR. LAMB: Steve Lamb for BNSF. Sorry. We
7 immediate to have time to consult with a client, so we
8 won't be able to do it tonight.

9 HEARING OFFICER KRAMER: Okay.

10 MS. HOLMES: Should we then dismiss
11 Dr. Greenberg?

12 HEARING OFFICER KRAMER: Well, I mean that begs
13 the question of whether -- I'm sure most of the other
14 parties -- well, not most -- well, maybe most by a number
15 would prefer Wednesday, which would be a problem for him.

16 MS. HOLMES: I have another suggestion.

17 Perhaps he could go ahead and testify tonight and
18 on the off chance that BNSF doesn't have any questions for
19 him, his unavailability wouldn't be an issue. We preserve
20 the option of moving forward on Wednesday with that
21 approach.

22 HEARING OFFICER KRAMER: And Dr. Greenberg, if we
23 timed it on Wednesday, could you give us a few minutes on
24 the telephone?

25 DR. GREENBERG: Alvin Greenberg again. I am

1 available Wednesday afternoon, just not in the morning.

2 HEARING OFFICER KRAMER: Oh, well that's what we
3 were looking at anyway, was the afternoon.

4 DR. GREENBERG: I'd be available by cell phone
5 then Wednesday afternoon.

6 HEARING OFFICER KRAMER: Okay.

7 MR. LAMB: That will be fine for BNSF. That
8 would be appreciated.

9 HEARING OFFICER KRAMER: Okay. So we'll -- I
10 think we want to finish biology, and we can finish the
11 rest, hopefully all of you, tonight then.

12 DR. GREENBERG: And Hearing Officer Kramer, I
13 promise to be more brief than usual.

14 HEARING OFFICER KRAMER: And we will dispense
15 with your -- the reading of your qualifications.

16 DR. GREENBERG: The reading of the charges
17 against me?

18 HEARING OFFICER KRAMER: Okay. Well, with
19 that --

20 MS. FOLEY GANNON: So if we are going to be
21 meeting again on Wednesday --

22 HEARING OFFICER KRAMER: Well, that's open at
23 this point.

24 MS. FOLEY GANNON: But we probably will be
25 meeting again sometime next week, Monday or Wednesday, or

1 maybe not, maybe we'll get everything done tonight. We
2 don't know.

3 What I'm trying to figure out is the schedule.
4 As you know, we are -- there is very, very room for
5 slippage. So obviously if it was Wednesday I would assume
6 you probably wouldn't have a draft decision out on
7 Tuesday? That may be an assumption I shouldn't presume to
8 make, but --

9 HEARING OFFICER KRAMER: No, that's logical. I
10 think Tuesday was starting to slip on us anyway with all
11 these new changes, but there was a time when we were
12 hoping by the end of next week, which still --

13 MS. FOLEY GANNON: Which still seems possible?

14 HEARING OFFICER KRAMER: If we go to -- I'm not
15 sure the difference between Monday and Wednesday means all
16 that much, but -- do you want to comment at all
17 Commissioner Eggert?

18 PRESIDING MEMBER EGGERT: Well, I think -- I
19 mean, the important thing is that we want to make sure
20 that we have all the information that we need to make a
21 proper decision, so I mean, that will dictate the
22 schedule. And so I think in terms of what we need to do
23 to accomplish that, the question on the table right now is
24 whether or not Monday or Wednesday's a better potential
25 day for all of the remaining issues that we're not able to

1 get through tonight.

2 MS. FOLEY GANNON: Okay. Thank you.

3 MS. MILES: And in that vein, I'm wondering if it
4 would just make sense to try to -- we could consider
5 biology in a more orderly fashion if we could do it all at
6 once when we are all on the same page with information and
7 so we could table biology for today, try to finish the
8 other topics perhaps, cultural, which was the initial
9 reason why we had this meeting. And then come back it
10 biology and consider it all at the next meeting.

11 HEARING OFFICER KRAMER: Any reaction from the
12 applicant to that?

13 MS. FOLEY GANNON: So I can understand again,
14 you're saying don't do any biology tonight?

15 MS. MILES: Right, I'm suggesting tabling biology
16 considering that we are not all on the same pages in terms
17 of being up to date --

18 MS. FOLEY GANNON: I don't know if we'll all be
19 on the same page ever. I mean, that's going to be a
20 challenge.

21 So you're saying we would do cultural tonight?
22 We could have Dr. Greenberg testify tonight, and then have
23 that left open if we needed to revisit it with BNSF?

24 HEARING OFFICER KRAMER: Correct.

25 MS. FOLEY GANNON: And the other issues we have

1 left out are -- I don't think they have much on noise.

2 Do you have anything on noise?

3 MS. HOLMES: No, in fact, I think many of the
4 other issues that are listed there actually isn't any
5 additional testimony.

6 MS. FOLEY GANNON: We don't have any additional
7 testimony either on any of those issues.

8 MS. HOLMES: I don't believe there's anything
9 on --

10 HEARING OFFICER KRAMER: Well, I didn't cross
11 reference this with your filing last night, but it
12 wouldn't surprise me if you haven't suggested a few
13 condition changes in some of these topic areas.

14 MS. HOLMES: I won't take offense at that
15 comment.

16 HEARING OFFICER KRAMER: Well, I mean, you filled
17 a hundred pages, there's got to be something in here.

18 MS. HOLMES: Most of them are accepting the
19 applicant's proposed changes or making other kinds of
20 minor changes, they're not -- with the exception of
21 biological resources.

22 HEARING OFFICER KRAMER: Well, you just never
23 know who's going to have an issue.

24 MS. HOLMES: We could walk through them?

25 HEARING OFFICER KRAMER: Yeah, I think that would

1 be useful.

2 So then --

3 MS. FOLEY GANNON: I'm sorry, what was that
4 suggestion?

5 MS. HOLMES: I was going to -- he said surely
6 staff has slipped in some additional changes in their
7 conditions of certification, and I said that I thought
8 that most of them were in response to either issues that
9 we had discussed at the workshop, accepting the
10 applicant's changes in one case, it's deleting references
11 to having another state agency provide approval, this had
12 to do with the issue if there were a dam to be built.

13 I don't think any of those would be
14 controversial, but I'd be happy to walk through them
15 tonight so we could get them off the table.

16 MS. FOLEY GANNON: I think we were fine with all
17 of them except for the biology.

18 MS. HOLMES: Okay.

19 MS. FOLEY GANNON: I thought the soils and waters
20 we didn't have any issue with and agreed with that was
21 consistent with what we had discussed.

22 MS. HOLMES: I understand there's still
23 disagreement on --

24 MS. FOLEY GANNON: Yeah.

25 MS. HOLMES: But --

1 MS. FOLEY GANNON: But the way you're proposing,
2 it seemed consistent with what we had discussed. So we
3 didn't have any objection to that.

4 MS. HOLMES: In responding -- I understand what
5 you're saying about doing all of biology at once. One
6 concern is that our desert tortoise expert was supposed to
7 already be on vacation, and she deferred her vacation to
8 be here with us this evening and today. And she can't
9 defer her vacation again. So it would mean that we will
10 not be able to have her present with us. If you can give
11 me a second I can talk to her about the possibility of
12 whether we can work something out. Can you give me just
13 one second?

14 HEARING OFFICER KRAMER: Go ahead.

15 MS. BLACKFORD: This is Ashleigh with the
16 service. If we're talking about Monday, I will most
17 likely not be available for Monday. Wednesday I'm not
18 sure; I would have to check.

19 MS. FOLEY GANNON: Our suggestion would be we
20 don't object to doing cultural resources first, let's see
21 where we get. If we have time and energy if we could
22 start with biology, and we could do -- we do have, you
23 know, Chris Otohal is up here from Barstow from the BLM,
24 we do have our desert tortoise person here, we would like
25 to be able to have her speak. Ashleigh is here; we don't

1 know if she's going to be available later on.

2 So to the extent we could do some of it tonight,
3 we would like to get through what we can.

4 HEARING OFFICER KRAMER: And I think that's a
5 good idea, because we don't know how long the events in
6 the next time will take. We might as well do what we can
7 now with the understanding that we may have to revisit
8 some ground at that later time.

9 MS. HOLMES: Hearing Officer Kramer, would it be
10 a reasonable request to ask people if they have issues to
11 address that are on your list other than biology and
12 cultural and staff's worker safety fire protection,
13 hazardous materials? In other words, does anybody have
14 issues associated with soil and water resources, noise,
15 transmission line safety and nuisance? Because we're not
16 aware of any.

17 HEARING OFFICER KRAMER: So in effect, you're
18 asking if they've read the second errata -- homes home
19 well, the second errata didn't even address -- well, I
20 guess they did address soil and water resources, but they
21 didn't address noise and they didn't address transmission
22 line safety and nuisance.

23 MS. FOLEY GANNON: Right.

24 HEARING OFFICER KRAMER: But also important would
25 be all the -- I mean, this list was formulated before the

1 second errata came out, so if you've opened up a new topic
2 area with the second errata, we'd -- it's fair that we
3 address that as well.

4 Mr. Lamb and others, have you had an opportunity
5 to look at the second errata that came yesterday?

6 MR. LAMB: We have not.

7 HEARING OFFICER KRAMER: Okay. So we could
8 attempt to -- I think Ms. Holmes if we were going to do
9 that, we'd probably have to walk through and describe it
10 and they may in hearing about it decide that they have no
11 issues, but they won't know until --

12 MS. HOLMES: Then let's just proceed.

13 HEARING OFFICER KRAMER: Okay.

14 MS. FOLEY GANNON: Most of those issues.

15 HEARING OFFICER KRAMER: It sounds like staff and
16 the applicant are pretty close on those, but we just don't
17 know about the other parties.

18 Okay. How long is cultural expected to take,
19 because we did bring back our agency biology experts and
20 they're sacrificing some of their evenings for this so
21 I'd --

22 MS. MILES: Sorry. I have a suggestion. What if
23 we then went forward with biology to the extent we can and
24 table cultural so we can cut someone loose tonight?

25 HEARING OFFICER KRAMER: Well, I think we can do

1 biology and cultural tonight.

2 MS. MILES: You think so?

3 MS. FOLEY GANNON: That's what we are trying.

4 HEARING OFFICER KRAMER: That's what we're trying
5 to do.

6 So a time estimate or cultural?

7 MS. SMITH: But the biology is just to the extent
8 that -- Defenders, CURE and Sierra Club is on the
9 translocation plan.

10 HEARING OFFICER KRAMER: And the other issues
11 that may are been opened up by the latest filings.

12 MS. SMITH: You mean the ones that we haven't
13 reviewed?

14 HEARING OFFICER KRAMER: Right. It's not your
15 last shot at it.

16 MS. SMITH: That's what I'm trying to figure out.
17 So then we would come back on Wednesday?

18 HEARING OFFICER KRAMER: Monday, or Wednesday, we
19 haven't decided yet.

20 Okay. We were at the point of -- do you recall
21 correctly that we finished with the panel; is that
22 correct, Mr. Adams? Or did you have more questions for
23 your witnesses.

24 MS. HOLMES: Before we dive into this, can we
25 dismiss Dr. Greenberg? We've made our minds up on this.

1 HEARING OFFICER KRAMER: Well, he would be
2 available by phone only on Wednesday.

3 MS. HOLMES: He's available on Monday or on
4 Wednesday afternoon.

5 HEARING OFFICER KRAMER: By phone on Wednesday.
6 Do you think you could be effective on the
7 telephone?

8 He's nodding his head yes.

9 MS. HOLMES: You better not say no.

10 HEARING OFFICER KRAMER: Okay. Thank you
11 Dr. Greenberg, and have a safe drive.

12 Okay. So Mr. Adams, did you want to continue
13 with the staff witnesses and those who remain on the
14 agency panel?

15 MR. ADAMS: That depends if your intent is for
16 staff to finish up on its questioning on all of biology,
17 yes, we have more to do. We were -- I think when we broke
18 we were on the verge passing the floor to the applicant on
19 the question of desert tortoise relocation and on site
20 impacts. So if you want to move around the room on that
21 issue and then deal with some of the other biology, I
22 think it's applicant's turn; but if you'd rather --

23 PRESIDING MEMBER EGGERT: Actually, one
24 suggestion here. I guess given the high -- very, very
25 high likelihood that we will all be reconvening again, I

1 guess I would ask the applicant to think about economizing
2 the questioning for the panel at this time. There maybe
3 things that would be for the parties to know in response
4 to the new information that was brought forward in, you
5 know, ahead of the next meeting. And then there may be
6 things that would be useful to hold till next meeting.
7 And I would -- I guess I would let you decide on that.

8 MS. FOLEY GANNON: Okay. Things that would be
9 useful for people to know --

10 PRESIDING MEMBER EGGERT: Well --

11 MS. FOLEY GANNON: What I was thinking about
12 asking some questions particularly of the staff that I
13 would really like to know the answers to tonight if we're
14 going to be talking about this again on Wednesday.

15 PRESIDING MEMBER EGGERT: Correct.

16 MS. FOLEY GANNON: There's a few things I would
17 like to talk to Mr. Huntley about.

18 HEARING OFFICER KRAMER: Okay. Sounds like
19 Mr. Adams is ready for you to do that if you'd like.

20 MS. FOLEY GANNON: Thank you.

21 CROSS-EXAMINATION

22 MS. FOLEY GANNON: Mr. Huntley, you gave an
23 explanation in the errata issued last night as well as I
24 think just briefly this evening in response to Mr. Adams's
25 questions. But again, going back to the table and the

1 changes in that table, can you explain again where those
2 numbers derive from and how they're different from the
3 numbers that are in the translocation plans and the
4 earlier tables?

5 MR. HUNTLEY: Certainly.

6 HEARING OFFICER KRAMER: Table 6A on 310?

7 MS. FOLEY GANNON: That is -- right, 6A.

8 MR. HUNTLEY: All right. This is Chris. First
9 thing, what I'll do again is I'll try to describe how we
10 derive the numbers within the biological resources
11 Table 6A so everybody understands where those numbers come
12 from. And then we can try to figure out why there are
13 discrepancies between, say, tables in your translocation
14 plan or tables in the final EIS, which there are.

15 Our table basically, if everybody's looking at
16 that table, if somebody could put it on the screen, that
17 might help the folks out.

18 But for the proposed project site, we took the
19 same numbers that the BLM, the applicant, Fish & Wildlife
20 has taken as far as the number of observed tortoises. We
21 then used the exact same numbers from everybody's formula
22 and calculation using the Fish & Wildlife calculation for
23 what we would expect to be is 93 adults and sub-adult
24 tortoises. That number has not changed.

25 We use the exact same number, 47 to 185, which is

1 the 95 percent confidence level utilizing that Fish &
2 Wildlife formula. None of that has changed.

3 For the number of juvenile tortoises those
4 numbers have changed. In a phone conversation with the
5 Fish & Wildlife Service, Fish & Game, BLM, and I believe
6 the applicant was on that, I heard that Fish & Wildlife
7 indicated that the formula that was used, the Turner
8 formula, had been applied incorrectly by BLM, the service
9 and the applicant. And that originally they used, as did
10 we, we multiplied the number of expected tortoises by, you
11 know, .31 or by .51. Well, it's not 30 percent of the
12 adult populations, it's 31 to 51 percent of the total
13 population.

14 So we did a little math, and I came up with those
15 numbers of juvenile tortoises that we would expect to
16 occur as a proportion of the total population. I have a
17 formula written out if anyone looks, but it's basic math.

18 So the second column that's there, which is
19 juveniles, min/max, we used or I used for the table, I
20 just took the high end of the tortoise, juvenile tortoise
21 that could occur there. So --

22 MS. FOLEY GANNON: And that was to be
23 conservative?

24 MR. HUNTLEY: Just to be conservative.

25 That was the 96 and then the 41 is the percent of

1 the population multiplied by .31, right, and the 96 is the
2 higher end, which is 51 percent.

3 For eggs, I used the exact same formula that was
4 presented by the applicant and BLM in their documents to
5 calculate the number of eggs. That has not changed.

6 The total number of adults in that table does
7 change, and the reason it changes is we took the total
8 tortoises, which was the 93, right, and then we multiplied
9 them by the number of juvenile tortoises -- or added the
10 number of juvenile tortoises that could occur on the
11 project site, right, so we ended up with that number, and
12 then you have the range of 88 to 28 eight, which is the
13 sub-adult population.

14 For the translocation area, those are just the
15 exact mirrored number from the translocation plan, it's
16 the same thing. If you touch one tortoise at your project
17 site, you have to touch one tortoise at the translocation
18 site to mount a radio and do disease testing and then you
19 have to touch one tortoise at the control site to put a
20 radio tag on it and assess its health. So those numbers
21 are the same.

22 The buffer area numbers are exactly from the
23 final EIS. Those are the exact same -- those are the
24 exact same numbers that came from that table.

25 What you may find different, and it's not

1 reflected in this table, but when you look at the staff --
2 would you like me to pause?

3 When we look at the -- the total number of
4 expected tortoises for mortality and the total number of
5 tortoises that would be moved in the translocation event
6 is a little bit different from your document and this is
7 why: The number of juveniles are higher based on the new
8 formula, and then we assumed that you would find 15
9 percent of your tortoises, which is juvenile tortoises,
10 which is what you found on your proposed project site
11 during your surveys. That number could be higher or
12 lower, and that's why there's a range.

13 We didn't figure you would miss them all. And
14 because we know during your translocation event you'll be
15 excavating burrows, you have a higher likelihood of
16 finding juvenile tortoises which are often overlooked
17 because they're in a burrow, they're in a hole, they're
18 somewhere that you never see. So that's why we use that
19 number.

20 So if you look at our table and your tables those
21 numbers are different merely because we calculated the
22 math a little bit differently.

23 I have a brief description of the assumptions
24 below there that I think should be clear, but if I haven't
25 explained it adequately, please ask, and I'll try

1 something different.

2 MS. FOLEY GANNON: I think that's clear.

3 So does these changes in numbers, did that change
4 the analysis in your mind?

5 MR. HUNTLEY: No, it didn't. No, it didn't. And
6 interesting -- well, pardon me, yes it did. It changed
7 one aspect of it is if you have a potential of 107
8 tortoises that require translocation and you have only
9 space for 98 or a hundred, then you have not enough space
10 to translocation your tortoises. But I think it's
11 important to stress is these are mathematical formulas.
12 That number could be substantially lower or it could be
13 substantially higher. We tried to use that mid range
14 number. And that's what we're basing our assumption on.

15 You could find fewer tortoises, you could find,
16 you know, a hundred tortoises or 80 tortoises and you
17 would not have a problem in translocating them to your
18 site, but staff felt we had to use a conservative
19 estimate.

20 MS. FOLEY GANNON: And again in doing that
21 estimate, when you're looking and calculating how many as
22 you were saying are going to be affected in a controlled
23 area and the translocation area, those numbers then were
24 not based upon the assessment of the particular
25 translocation sites, that's just based on one to one.

1 MR. HUNTLEY: It's based on every tortoise you
2 move, you have to radio tag one at the control site and
3 you have to radio tag one at the translocation site.
4 That's what that's based on.

5 MS. FOLEY GANNON: So in determining the level of
6 effect, what importance does knowing the specific location
7 of all the tortoises that would be translocated have on
8 your analysis?

9 MR. HUNTLEY: I may not be understanding your
10 question --

11 MS. FOLEY GANNON: So you're saying if you needed
12 to, you'd usually be looking at where you're going to be
13 translocating them as well as the tortoises that you're
14 translocating, correct, in making an assessment about the
15 level of impact on the specious?

16 MR. HUNTLEY: In our staff analysis, I believe
17 what we said was we documented that you guys have surveyed
18 the ACEC, the Pisgah ACEC, the area of critical
19 environmental concern, the Ord Rodman Desert Wildlife
20 Management Area, you've identified those locations, you've
21 calculated estimates of populations. By knowing the
22 estimates of those populations on your sites, you can
23 evaluate how many tortoises you can translocate to those
24 sites. Now, in our staff analysis, that's where we left
25 it.

1 Part of the translocation plan would be for you
2 to disease test those tortoises to make sure that you're
3 not introducing healthy tortoises into a diseased
4 population.

5 We did not spend a large amount of -- well, we
6 didn't analyze that in detail.

7 MS. FOLEY GANNON: But you did review the
8 translocation plan which was submitted.

9 MR. HUNTLEY: We did review the translocation
10 plan, and staff would have substantial revisions to that
11 plan. I think resource agencies are going to have
12 comments on it as well. So we recognize that the
13 translocation plan was a draft document that would be
14 subject to revision. And we're not relying on that draft
15 translocation plan right now to solve the problems for
16 translocating the tortoises.

17 MS. FOLEY GANNON: And do you feel that you have
18 enough information to date to be able to make an
19 assessment of the potential impact associated with the
20 project?

21 MR. HUNTLEY: Fish & Game has provided new
22 information on what they feel is relevant to this project.
23 And staff has to give them due deference and has to
24 consider the information that they've provided.

25 You know, in our testimony that's written in --

1 right in front of you, we identified what we felt were the
2 impact. We proposed mitigation for those impacts, and in
3 our staff testimony we felt that it could be reduced to a
4 level less than significant and that we felt it would
5 comply with CESA. There's new information that has been
6 provided by the Fish & Wildlife Service and we can't make
7 a recommendation on that. We have to basically defer at
8 this point to the new information from Fish & Game.

9 MS. FOLEY GANNON: Let me make sure I understand
10 this.

11 I understand deferring potentially on mitigation
12 ratios, on deferring on CESA compliance --

13 MR. HUNTLEY: We're not deferring --

14 MS. FOLEY GANNON: Are you deferring your
15 analysis to them?

16 MR. HUNTLEY: We're not deferring. That may have
17 been an inappropriate word. We're giving them deference.
18 They are the resource agency.

19 MS. FOLEY GANNON: I understood that.

20 MR. HUNTLEY: We have regulations in the energy
21 commission that when new information comes -- it's not new
22 information, but they've reconsidered their position based
23 on evaluation of what staff has provided them.

24 MS. FOLEY GANNON: So is it your understanding
25 that you have to agree with them on their analysis on how

1 they analyze impacts and the conclusions that they make?

2 MR. HUNTLEY: I'm not certain I can answer that
3 question right now, to be honest.

4 MS. FOLEY GANNON: And how were you going to go
5 about trying to answer that question, then? I mean, how
6 would you be thinking about it?

7 MR. HUNTLEY: Well, you know, staff is going to
8 have to look at the information we have, staff's going to
9 have to communicate with Fish & Game to make sure we
10 understand exactly what their position is. When we know
11 that, we'll be able to make our conclusions. It's our
12 understanding from what Terry said earlier today that the
13 energy commission is likely to adopt the mitigation ratios
14 proposed by the Fish & Game in our conditions of
15 certification.

16 MS. FOLEY GANNON: I understood that, but I'm
17 just trying to appropriate a little bit deeper, and I
18 promise I won't take too much time on this, but I'm just
19 trying to understand whether you still are exercising an
20 independent analysis of the impacts that you feel will be
21 associated with this project based on -- I know you've
22 looked at this for quite some time, you've looked at these
23 numbers, you've looked at the specious, you know the
24 habitat, you know the project, are you going to conduct
25 your own independent assessment and --

1 MR. HUNTLEY: I think you can read the staff
2 analysis to ascertain whether we've provided our own
3 independent analysis.

4 MS. FOLEY GANNON: That's what -- I agree with
5 you, you have. And that's what I'm asking you. Are you
6 standing by that analysis? I'm not asking about the
7 mitigation measures, I'm saying you made a determination
8 that there is a potentially significant effect but it was
9 an effect that could be mitigated to a less than
10 significant level. Do you still feel that's your
11 conclusion?

12 MR. HUNTLEY: Well --

13 MR. ADAMS: Can I offer a perspective here?

14 MS. FOLEY GANNON: Sure.

15 MR. ADAMS: The -- from my observation, staff has
16 analyzed the impacts and stands behind that analysis.
17 What we are deferring to Fish & Game on is the -- Fish &
18 Game is responsible for administering the California
19 Endangered Species Act and determining as opposed to the
20 impacts, what constitutes full mitigation for purposes of
21 compliance with CESA, and they have much more experience
22 on that.

23 So I think what I heard --

24 MS. FOLEY GANNON: I'm happy to hear you say
25 that, but I would like to hear it from the witness that

1 that's true, that he does believe that this analysis that
2 he's done is a sufficient analysis and that, you know -- I
3 completely agree with you. That's why I started out by
4 saying his analysis --

5 MR. ADAMS: Are you talking about --

6 MS. FOLEY GANNON: -- or the staff assessment.

7 MR. ADAMS: May be distinguish between impact and
8 mitigation.

9 MS. FOLEY GANNON: But he also made a conclusion
10 in the staff assessment, or the staff made a conclusion
11 that this was an impact that could be mitigated to less
12 than significant. And I understand that there's this
13 looking at what is the mitigation that's necessary for
14 that, but you understand that's different than saying that
15 something can't be mitigated or hasn't been analyzed
16 enough that you can tell what mitigation's necessary. So
17 that's what I'm trying -- because I heard something
18 slightly different from Ms. Moore this evening and I'd
19 like to have a discussion with her as well, but I want to
20 hear what staff's independent analysis is.

21 MR. HUNTLEY: You may have -- well, I may not
22 have understood what you were asking.

23 Are you asking me do I feel the impact analysis
24 is adequate?

25 MS. FOLEY GANNON: Absolutely.

1 MR. HUNTLEY: I do.

2 MS. FOLEY GANNON: And then you're going to be
3 making an assessment of the mitigation that you feel
4 should be required; is that correct, that's what you need
5 to go back and think about?

6 MR. HUNTLEY: We are. And we will be consulting
7 with the resources agency on the mitigation.

8 MS. FOLEY GANNON: Thank you, I appreciate that.
9 And Ms. Moore, are you still on the line?

10 MS. MOORE: Yes, I am.

11 MS. FOLEY GANNON: If I could just ask you a
12 couple of questions to get some clarification on what you
13 said. I understand that you were saying about the
14 mitigation that you feel is necessary to comply with
15 CESA's full mitigation requirements, but again, going back
16 to the assessment of the impacts, I guess I'm a little
17 confused about exactly what you feel is not available to
18 you now that allow you to say that you could adequately
19 assess the potential impacts.

20 MS. MOORE: What is not available is the
21 information, the information on the entire population of
22 desert tortoise that will be affected by this project.
23 Before this project, the tortoises in the host population
24 or recipient population would not be affected. And I
25 believe -- the department believes that the impacts have

1 not been assessed appropriately at this time.

2 MS. FOLEY GANNON: Do you agree with the numbers,
3 I know -- I don't think you're on WebEx or have the errata
4 right in front of you, but the basic calculation that
5 staff used is to assume a certain level of direct impacts
6 to the translocated population, a certain level of impacts
7 at a one to one level to the population in the
8 translocation area and the control area of direct effects
9 on this specious. Do you agree with that basic formula?

10 MS. MOORE: I agree with the basic formula,
11 correct, yes.

12 MS. FOLEY GANNON: And you know the area that the
13 applicant has identified as at least the primary
14 relocation areas; is that correct?

15 MS. MOORE: Correct, uh-huh.

16 MS. FOLEY GANNON: And there's some indication
17 that possibly that area won't be sufficient to support the
18 population that may be found on the site; is that correct?

19 MS. MOORE: Yes.

20 MS. FOLEY GANNON: And so the concern or the
21 piece of information that is missing is where those
22 additional tortoises would be relocated to assuming that
23 there's a higher number found than could be accommodated
24 in the DWMA; is that correct?

25 MS. MOORE: With the host population information,

1 that is correct.

2 MS. FOLEY GANNON: Again, but you would know, you
3 would know an estimate of the number of tortoises that you
4 would expect to be impacted in whichever host population,
5 wherever they were moved to; is that accurate?

6 MS. MOORE: No. I cannot determine the density
7 of desert tortoises or the numbers of desert tortoises
8 that would be impacted. I can only tell you how many will
9 be -- actually have transmitters on them.

10 MS. FOLEY GANNON: But is there -- is there not
11 in the translocation plan a threshold above which the
12 additional tortoises cannot be moved into an area, sort of
13 a standard, a performance standard that says you can't
14 exceed this number; is that right

15 MS. MOORE: That's correct.

16 MS. FOLEY GANNON: And is there also things like
17 you have to do, obviously, the health testing, and so you
18 can't move healthy tortoises into a sick population and
19 other factors like that; is that correct?

20 MS. MOORE: Correct.

21 MS. FOLEY GANNON: A and you don't feel that
22 those sort of performance standards and guidance is enough
23 for you to make is determination about the overall impact
24 of the project?

25 MS. MOORE: I do not.

1 MS. FOLEY GANNON: If you had the other --
2 another translocation area identified, it would change
3 your analysis how?

4 MS. MOORE: If -- well, first I'm -- the
5 additional translocation areas, it is typical that in we
6 want to be able to at least support -- we understand that
7 it's a draft translocation guide and working document, but
8 we need the translocation areas to at least support the
9 amount of potential tortoises that would be under our take
10 permit. And as the CEC document is written and the staff
11 assessment, that is 107, and that is less than the amount
12 that can be put in the translocation area.

13 Again, those numbers I am not agreeing
14 necessarily with how the chart numbers are right now only
15 because I did the chart myself and I came out with
16 different numbers --

17 MS. FOLEY GANNON: Okay.

18 MS. MOORE: -- And I'm not -- I'm not -- the way
19 that it was -- that they got to the 107, I am not certain
20 that I agree upon that.

21 MS. FOLEY GANNON: Okay. I understand that. So
22 there may be some still disagreements about the numbers,
23 but assuming that that can be resolved, again, if I
24 understand you, you said that a number, a take number in
25 your permit, just like the service would, and just like

1 the staff did have saying they would allow a certain
2 number of tortoises to be translocated, and beyond that it
3 wouldn't be authorized under this condition of
4 certification until certain other criteria were met. So
5 if you establish that kind of number in your permit, would
6 you then be able to adequately assess the impacts?

7 MS. MOORE: It would --

8 MS. FOLEY GANNON: What I'm trying to say is you
9 set the ceiling, you say you can't go beyond this, this is
10 all we can analyze, so we're going to assume that if
11 whatever the number is, 96, 97, tortoises --

12 MS. MOORE: That -- that -- I could set that as a
13 ceiling if the translocation areas will accept that
14 meaning or potentially will, and that the applicant or the
15 project proponent takes the risk that if they are above
16 that number, everything stops.

17 MS. FOLEY GANNON: Absolutely.

18 MS. MOORE: One number above.

19 MS. FOLEY GANNON: And so if you had that kind of
20 condition, then you would feel like you could do the
21 analysis; is that correct?

22 MS. MOORE: If I also had -- translocation
23 information was also there, yes.

24 MS. FOLEY GANNON: Okay. Thank you very much.

25 Mr. Othahal, have you had a chance to review this

1 analysis?

2 MR. OTAHAL: Actually, no, I haven't in terms of
3 the specific numbers, but there are a couple things I did
4 want to add.

5 In terms of the consultation that we are doing
6 with Fish & Wildlife, there is an upper limit. And if we
7 are getting close to that upper limit, obviously the
8 applicant and everybody involved is going to start to look
9 for additional area for receptor area, because otherwise,
10 Tessera will be shut down whenever we reach that limit.
11 And that's what I have based my kind of analysis on, is
12 okay, this is the upper limit, and you know, so we have to
13 have a number, because you know, these numbers are
14 estimates, and based on the number that we have, we have
15 set a upper limit, and the biological opinion will also do
16 that.

17 MS. FOLEY GANNON: And that would affect your
18 analysis, what that number is, and having that number.

19 MR. OTAHAL: Yeah, yeah. And the other thing is
20 that the Ord Rodman DWMA is not topped out. This is just
21 based on the area that we have already done surveys are or
22 will do surveys for this spring. However, there is still
23 quite a bit of -- I would say probably at least double the
24 amount of receptor area in the Ord Rodman DWMA, and that
25 would be where these new receptor areas would be targeted

1 first. We would not be looking at totally new areas.

2 So we already have our baseline information, you
3 know, based on what we have already analyzed. And it
4 would just be a matter of just adding pieces in the
5 Ord Rodman DWMA. So, you know, there's all these
6 provisions that are built into the translocation plan,
7 that there are limits and there are contingencies for
8 exactly this kind of issue if it does turn out to be an
9 issue.

10 MS. FOLEY GANNON: Thank you.

11 In the interest of trying to move things along,
12 I'll put two words into a sentence I never do, deferred
13 and mitigation, but I will defer the discussion of
14 mitigation numbers until the next time we talk about this.

15 HEARING OFFICER KRAMER: And that's it?

16 MS. FOLEY GANNON: That's it.

17 HEARING OFFICER KRAMER: Okay. Any of the
18 intervenors wish to ask questions at this point?

19 Mr. Ritchie.

20 MR. RITCHIE: Sure. Travis Ritchie with
21 Sierra Club.

22 CROSS-EXAMINATION

23 MR. RITCHIE: Ms. Moore I wanted to go back to
24 the statement you said earlier about not having enough
25 information on the impacts to the host sites.

1 When you speak about the host sites you mean the
2 impacts to the tortoise on the receptor sites, correct?

3 MS. MOORE: Correct.

4 MR. RITCHIE: And one of the metrics of
5 information that came up discussing the proposed host
6 sites was the density of tortoise that are there, correct?

7 MS. MOORE: Correct.

8 MR. RITCHIE: And are there other metrics that
9 are involved on the -- that effect the ability of the host
10 site to have a different carrying capacity?

11 MS. MOORE: There are.

12 MR. RITCHIE: What are some of those other
13 metrics?

14 MS. MOORE: I do not know. And just off the top
15 of my head.

16 MR. RITCHIE: Have you seen them in the
17 translocation plan? Are they identified in the
18 translocation plan?

19 MS. MOORE: There are densities identified in the
20 translocation plan, but I'm not sure what they're relating
21 to right at this moment.

22 MR. RITCHIE: Aside from densities, are there
23 other metrics in the translocation plan that are
24 identified?

25 MS. MOORE: I don't know.

1 MR. OTAHAL: I can actually address that.

2 There are at least two other matrices that we are
3 looking at.

4 One is presence or absence of disease of the
5 animals that are in the receptor site, so we will not move
6 disease-free animals into areas where there are diseases,
7 where there are diseased animals. We'll have a buffer
8 around each of those diseased animals. So that's one
9 matrix that we're looking at.

10 The other is looking at the habitat value. I
11 don't know exactly how that number was specifically
12 derived. That's something that I would defer to Teresa to
13 talk about. But we are looking at that as a way of also
14 saying, okay, this is really poor habitat, so we initially
15 have set a 30-percent limit above the baseline number that
16 we're assume for populations --

17 MR. RITCHIE: 30 percent of what? I'm sorry.

18 MR. OTAHAL: 30 percent of the average population
19 in the Ord Rodman DWMA, I believe is what we're using --

20 MR. RITCHIE: So we're talking about density
21 again, as being that's the metric criteria?

22 MR. OTAHAL: Right.

23 MR. RITCHIE: But there are other metric
24 criteria.

25 MR. OTAHAL: Right.

1 MR. RITCHIE: Such as disease.

2 MR. OTAHAL: Such as disease.

3 Now, the other one --

4 MR. RITCHIE: Now do you know if there's disease
5 in the say, the DWMA 1 area right now?

6 MR. OTAHAL: No, that's something that we are --
7 we will be testing.

8 MR. RITCHIE: And when will you know that answer?

9 MR. OTAHAL: Before we move animals into the
10 area.

11 MR. RITCHIE: So if there's a diseased tortoise
12 in the DWMA 1, will you reject the DWMA 1 as a site for
13 translocation?

14 MR. OTAHAL: We will set up a specific buffer, I
15 believe it's 250 kilometers -- not kilometers. What is
16 it?

17 Right off the top of my head, I don't remember
18 the buffer, but we have a specific buffer based on home
19 ranges of animals.

20 MR. RITCHIE: So if there's one, you'll put one
21 buffer up.

22 MR. OTAHAL: Exactly.

23 MR. RITCHIE: And if there's two, you'll put two
24 buffers up.

25 MR. OTAHAL: Exactly. And that's why --

1 MR. RITCHIE: If every tortoise is diseased such
2 that the buffers required in DWMA 1 leave no available
3 space, would you abandon that space as a translocation
4 site?

5 MR. OTAHAL: Yes, that's exactly true. And
6 that's why we have a contingency to look for additional
7 receptor area if these turn out not to be acceptable.

8 So we have anticipated that, that right now we
9 have identified these areas, these are what we're starting
10 with. If it turns out that we can't put as many animals
11 as we need to translocate, we'll extend the area. If we
12 have to cut out particular areas because they're diseased,
13 we will -- we will add additional area to the receptor
14 areas.

15 The other criteria --

16 MR. RITCHIE: Have you -- go ahead.

17 MR. OTAHAL: -- is that we are looking at the
18 habitat value, the high, the medium and the low. And
19 where we have low habitat value, we will bring that number
20 down, the number of animals we can translocate into the
21 area.

22 MR. RITCHIE: But to be clear, so there's no
23 percentage or number of diseased tortoises that you may or
24 may not find on the receptor site that would dictate
25 whether or not you can still continue to put tortoise into

1 that site. The criteria number that you're still going to
2 is density, it's not the level of disease that's present
3 in the receptor site.

4 MR. OTAHAL: In terms of disease, it's more of an
5 aerial extent. So you have a diseased animal, you put a
6 buffer around it, so that's out of the receptor area.
7 Now, if the next diseased animal overlaps that, there's
8 going to be little impact; but if it's a totally different
9 area, then you have a totally different buffer area. So
10 if there's a complete coverage of a receptor area based on
11 these buffers, then we would throw that entire area out.

12 MR. RITCHIE: And then you mentioned that the
13 second -- or the second metric was habitat value. But
14 then you mentioned several things, I think, within habitat
15 value that there are metrics within habitat value that
16 would be considered in that grading system, correct?

17 MR. OTAHAL: Correct.

18 MR. RITCHIE: And are those defined in the
19 translocation plan of how --

20 MR. OTAHAL: Yeah, those are defined. I don't
21 remember them right off top of my head, there were several
22 things that were looked at.

23 MR. RITCHIE: Well, we do have the translocation
24 plan. Can you point to where you -- I mean is it percent
25 of vegetation coverage? I'm trying to understand how that

1 metric is defined because again, we're going back to
2 everything is density based.

3 MS. FOLEY GANNON: You know, Ms. Miller might be
4 the witness who is more knowledgeable in answering
5 specifically where it is in the plan as she was one of the
6 primary authors of it.

7 MR. RITCHIE: While we're looking, if I could go
8 back to you, Ms. Moore. Are these some of the metrics
9 that you would be considering as impacts to the host
10 sites?

11 MS. MOORE: These are some of them, yes.

12 MR. RITCHIE: But are these all of the metrics
13 that you would consider in the impacts to the host sites?

14 MS. MOORE: I do not know at this time.

15 MR. RITCHIE: Thank you.

16 MR. OTAHAL: Yeah, so the definition of the
17 criteria that were used for the habitat, are on page 2-2
18 of the translocation plan in Section 2.1.2, second
19 paragraph there. Those are some of the matrices that were
20 used to derive the habitat value.

21 MR. RITCHIE: One moment.

22 So I see that it says, are for instance, observed
23 vegetation coverage. Is that a binary metric? If it's
24 observed, it's there; if it's not, it's not?

25 MR. OTAHAL: Yeah, and again I would defer a lot

1 of that to Ms. Miller.

2 MR. RITCHIE: Can you point to -- okay,
3 Ms. Miller can answer this as well.

4 Can you point to in the translocation plan where
5 vegetation coverage is defined and how that affects the
6 habitat suitability metric of the carrying capacity of the
7 receptor site?

8 MS. MILLER: Theresa Miller.

9 So it's on page 2-two, and as we said before, we
10 did a qualitative assessment, we did not do a quantitative
11 binary assessment of the habitat. We based it on the
12 hours and hours of surveys we did on the tortoise, doing
13 tortoise surveys and burrowing owl surveys. And all the
14 surveys we did have the habitat, we had botany --
15 botanists on the site doing the rare plant surveys. So
16 aside from that, we did -- during the tortoise surveys we
17 assessed the habitat that we went into, and as I said
18 before, we looked at the habitat on the project site, and
19 determined the habitat there. And we looked at the
20 forage, amount of forage that was available for tortoise,
21 the soils, the vegetation alone, whether it was creosote,
22 whatever type of vegetation that is and the density of
23 that habitat. We looked at, you know, like drainages and
24 washes and that kind of thing. And based on an overall
25 landscape type of quality, we at that, we didn't pick --

1 we didn't do a grid sample side or anything like that, we
2 looked at the overall landscape.

3 MR. RITCHIE: And that was not quantified. I
4 believe you said it was a qualitative assessment, it was
5 not a quantified assessment?

6 MS. MILLER: Quantified in a qualitative way, I
7 guess. Like we didn't list binary numbers or anything --

8 MR. RITCHIE: For instance, if I was going to
9 take the adequacy of the DWMA 1 site once it was decided
10 it was adequate, and use vegetation as a metric at the
11 DWMA 2 site, and let's say I wanted to replicate whatever
12 study you had done there, are there any standards or
13 metrics of the vegetation cover that I could replicate on
14 the DWMA two site to consider whether or not that was
15 equal to the vegetation coverage on the DWMA 1 site?

16 MS. MILLER: Yes, there are -- as far as, you
17 know, percentage of cover of habitat, it's not in the
18 translocation plan that we've listed, but it is something
19 that can be listed in the habitat by the botanists and
20 biologists that did that.

21 MR. RITCHIE: But its -- okay, thank you.

22 MS. MILLER: We can add that to the --

23 HEARING OFFICER KRAMER: Let me break in for a
24 minute.

25 Ashleigh Blackford, you raised your hand on

1 WebEx. Do you have something you wanted to say? And let
2 me un-mute --

3 MS. BLACKFORD: Some of those questions, if
4 there's additional information that's wanted, but if no
5 one would like more information, I don't need to hold us
6 up.

7 HEARING OFFICER KRAMER: Okay. You were actually
8 muted because we were getting some noise from you. So you
9 need to repeat that.

10 MS. BLACKFORD: Oh, I'm sorry.

11 That was me muting and un-muting several times, I
12 apologize.

13 So I can help add some comments on the last issue
14 if people are interested, but if that addresses
15 Sierra Club's concerns, I can hold my mouth.

16 HEARING OFFICER KRAMER: Well, I think we'd like
17 to hear from all the agencies. So go ahead.

18 MS. BLACKFORD: Okay. So concerning what are
19 some of the other metrics we've been looking at. Chris
20 Otahal was correct that disease is one of the other
21 issues. We cannot actually -- as part of the
22 pre-translocation survey, one of the things that we
23 request that the applicants do is to -- although, they do
24 not have permits typically to handle tortoises at that
25 time, is to take a look at the tortoises that they do see

1 and try to assess whether or not there might be a high
2 disease prevalence in the area, based on what you might
3 see on the tortoise's face -- including healthy eyes.
4 It's definitely just a general broad brush, but what it's
5 designed to do is to -- if you did select a translocation
6 site, but you are doing some density surveys on, is to
7 potentially be able to assess if that was an area of high
8 disease, so that you wouldn't pursue any additional
9 surveys in that area and select it as a translocation
10 site.

11 But again, like Chris says, there's not a
12 threshold for the density of disease. However, if we did
13 waive the services looking at translocation is if, you
14 know, you went out and did your surveys and your
15 disease testing of a recipient site and found extremely
16 high levels of disease, we would not recommend moving any
17 animals into that area, even if there was space to let's
18 say two animals. That would not be something that we
19 would continue to pursue.

20 The other measure as Chris was saying is related
21 to the habitat quality. However, habitat quality cannot
22 truly be measured at this time. I think that's a very
23 huge misconception. What we're looking at is looking for
24 habitat those most similar to the project site.

25 We go out quite frequently with the tortoise

1 experts and see habitat that we think as humans looks like
2 great habitat and we find very low dense tease of tortoise
3 in that area. And we can go out the areas that from our
4 perception seems to below quality habitat and we find
5 extremely high numbers of Desert Tortoise.

6 So having really saying this the high quality,
7 low quality, and medium quality is not -- you know, I know
8 that we so, oh, it has a lot of tortoises, so it must be
9 high quality habitat or it has few tortoises so it must be
10 low quality, but there's -- many people would know there's
11 an abundance of factors that could be coming into play for
12 that density.

13 So we are looking at habitat quality but it's not
14 so much as high, medium, low as a relationship to what
15 you're seeing on the current site.

16 MR. RITCHIE: Thank you. That's helpful.

17 MR. OTAHAL: One quick thing that I wanted to add
18 is that we can't really do the disease testing i.e., the
19 blood testing until we have the biological opinion. So
20 that's part of the reason that we can't do that
21 proactively. Like we can't be out testing the tortoises
22 right now for disease, because that's considered a take.
23 So that's part of the reason that we have to defer that.

24 MR. RITCHIE: Right. So right now you don't know
25 the disease makeup of the host tortoise at the recipient

1 sites.

2 MR. OTAHAL: Correct. And we are have
3 contingencies based on that lack of knowledge certainty.

4 MR. RITCHIE: Now, I want to talk about some
5 other metrics. And Mr. Otahal and Ms. Miller you're both
6 free to answer as you like.

7 You're both familiar with the Fort Irwin
8 translocation spot I assume. Are you aware that there
9 were several metrics used at that site? For instance,
10 at -- base off of that information, did you look at the
11 growth rates of the tortoise at the proposed translocation
12 sites for the DWMA 1 or DWMA 2 area?

13 MR. OTAHAL: We any of that data -- those data.

14 MR. RITCHIE: So you did not consider growth
15 rates --

16 MR. OTAHAL: No.

17 MR. RITCHIE: -- because you did not have the
18 data?

19 MR. OTAHAL: Well, we don't have those data yet,
20 so we can't look at that.

21 MR. RITCHIE: Did you consider movement of
22 tortoise on the host sites, things like site fidelity or
23 home range considerations?

24 MR. OTAHAL: Again, without radio tagging, i.e.,
25 having a biological opinion to allow us to do that,

1 question not give those data.

2 MR. RITCHIE: And similarly, you did not consider
3 survivor rates of the host?

4 MR. OTAHAL: That would require a multi-year
5 survey analysis that isn't required by Desert Tortoise
6 recovery office --

7 MR. RITCHIE: Potentially to speed things up I'm
8 going to run through a few. If you want to stop me and
9 let me the ones that did you consider, that's good. Other
10 wise I'll assume your answer is --

11 MR. OTAHAL: I think we have summarize the ones
12 that we did consider. So there may be other ones that you
13 could suggest. And I want to really iterate that this is
14 a draft plan and we're asking for feedback. So if you
15 think that we have not looked at certain matrices that you
16 think are applicable that we can get, send that as a
17 comment, please. And if we can obtain those data in a
18 timely manner, we would be more than happy to refine our
19 criteria.

20 MR. RITCHIE: Certainly. And for the record's
21 sake, I hope you'll indulge me, there's just a few here
22 I'll run through. And go ahead, and once I'm done with
23 the list if any of these -- we think should be added to
24 the list of what were considered, we can go to that.

25 But there are stress rates at the host sites.

1 Incident -- well sorry, we spoke much incidents of
2 disease. Egg production at the receptor sites, nest
3 success at the receptor sites, recruitment at the receptor
4 sites, nutrition of the Desert Tortoise on the receptor
5 sites, and general demography, number of juveniles, et
6 cetera.

7 And also -- well, let's see. And actually
8 predation is another one, the existence of predators,
9 whether invasive species were present on the receptor
10 sites, and also anthropogenic impacts. The impact of
11 roads or habitat fragmentation or human encouragement.

12 MR. OTAHAL: Yeah. And I don't know where you
13 actually obtained that list, because they did not do, to
14 my knowledge, any of those. What I think you're listing
15 there is a list of items that were included in a modeling
16 exercise that they used for the site, as opposed to
17 actually giving us data.

18 MR. RITCHIE: I'm not necessarily referring to
19 Fort Irwin at this point. I'm just curious of this only
20 refers to what was happening with the Calico site.

21 MR. OTAHAL: Oh, okay.

22 MR. RITCHIE: And we've gone over that and thank
23 you.

24 MR. OTAHAL: So I --

25 MR. RITCHIE: And I will move on.

1 MR. OTAHAL: Okay, so those were not used in the
2 Fort Irwin experience. They did not gather all those
3 parameters and also the guidelines do not ask us to do
4 those parameters.

5 MS. MILLER: I'd like to add, during
6 the -- you're asking about the habitat assessment. And as
7 Ashleigh Blackford mentioned, we did look at that at like
8 the -- we looked at the habitat site and the quality of
9 the habitat on the site, and we directly compared it as we
10 went. Every biologist that surveyed the project site
11 surveyed the DWMA and the ACEC and the control areas. So
12 everybody that was on the site had the same kind of
13 consent of what the habitat looked like. We knew how many
14 tortoises we found in the good habitat, in the bad habitat
15 and in the medium quality habitat.

16 So when we went to the control and translocation
17 areas we looked at it and we're like this is not -- this
18 is the same -- this looks the same as this part of the
19 project site. And some of the data sheets say that. You
20 know, that's kind of how we looked at it. We're like how
21 does this compare directly to where we're seeing all this
22 tortoise or where we're not seeing tortoise.

23 So that was one point. And then we also looked
24 at -- from your list, we looked at anthropogenic details.
25 We looked at roads. You know, everything like that. We

1 looked at that kind of thing that was on our list of how
2 the look at the habitats.

3 So -- and then one other thing. We didn't, t
4 list that you're having is included in the DTROs, Desert
5 Tortoise Recovery Offices list of things that they
6 learned -- you know, the lessons learned, that we're
7 putting into the translocation plant and into the process.

8 So those are all well recognized issues that
9 we're looking at for the plan.

10 MR. OTAHAL: Actually, there were two items that
11 I kind of wanted to point out since you are referring to
12 the Fort Irwin plan quite extensively.

13 There's two really important things that need to
14 be understood the difference between this plan and Fort
15 Irwin. Fort Irwin was moving tortoises at a density of 20
16 to 30 animals per square mile. So that's how many animals
17 that they were picking up and putting into a square mile.

18 Whereas, what we're looking at is maybe up to
19 five, but we're probably not even going to get there,
20 because of the limits that we have set. So we're going to
21 be more around two to three animals per square mile that
22 we're going to be moving into the receptor, which is a
23 very small number of animals, specially comparing that to
24 Fort Irwin.

25 MR. RITCHIE: I understand. And actually

1 I -- again, my questions weren't directly comparison of
2 fort Irvine. I was just trying to understand what were
3 going on here.

4 And I would like to move on. You mentioned the
5 biologists working the Desert Tortoise translocation
6 sites. Do you know who would be the lead biologist or
7 biologists leading the translocation efforts, the program
8 once it was implemented?

9 MR. OTAHAL: Yeah, those are list is in the plan.

10 MR. RITCHIE: They are -- I mean, that's a
11 legitimate question. They're in the --

12 MS. MILLER: Table 3 in the translocation plan.

13 MR. RITCHIE: Do you have a page number?

14 MS. MILLER: I'm sorry, 2-6.

15 MR. RITCHIE: Thank you.

16 So as I read this table, it's agency approved
17 Desert Tortoise biologists. But you haven't actually
18 identified which of these biologists would be on the
19 program at this point, correct?

20 MS. MILLER: At this point we are expecting that
21 the people that are able to do transmit or attachment and
22 blood draw would be the leads. I would be the designated
23 biologist as proposed for that.

24 But for the on-site lead for the project, it has
25 to be somebody that's able to blood draw and put on

1 transmitters.

2 MR. RITCHIE: And have you designated a lead
3 veterinarian?

4 MS. MILLER: At this time, we haven't.

5 MR. OTAHAL: And this list of personnel here are
6 just the proposed folks. They will to have be approved by
7 BLM, Fish and Game, and Fish and Wildlife before they
8 actually get to participate in the program.

9 MR. RITCHIE: Okay. Moving on. The issue of
10 quarantine pens has come up. We talked about that if we
11 identified disease tortoises and we would put up awe
12 quarantine pen.

13 Isn't it also true that quarantine pens might be
14 used for the translocated tortoise as they were put into
15 the site, is that correct? Or if I'm mixing those up,
16 please correct me.

17 MR. OTAHAL: Right now for the quarantine
18 animals, that's for the proposal for the 1A concept,
19 moving the early animals out of the very small footprint
20 that wants to be -- the applicants wants to put in this
21 fall.

22 And at this point, the idea is to set up
23 quarantine pens in the Pisgah ACEC and move the animals
24 into those pens pending blood testing to see if we can
25 release them or not, and also blood testing of the

1 residents.

2 MR. RITCHIE: So would quarantine pens be used in
3 the later stages of the translocation plan?

4 MR. OTAHAL: We do not anticipate that being the
5 case because at that point we will be radio tagging
6 animals, taking the blood samples and then we will be able
7 to get the blood sample tests back and then decide if we
8 can move them or not, depending on if they are diseased or
9 not.

10 MR. RITCHIE: And so these quarantine pens that
11 we're discussing, those are different than the
12 exclusionary fencing that you would put around the Desert
13 Tortoise on the host sites?

14 MR. OTAHAL: Yes. And at this point, we are
15 anticipating that we can only move two animals into the
16 Pisgah ACEC. Originally, we were looking at eight
17 contingency up to 11. But based on some new analysis by
18 Fish and Wildlife, looking at these population existing
19 populations and our limit, we are now limited to only two
20 animals. So only two animals will be moved into these
21 pens at this point.

22 MR. RITCHIE: Where would you place the
23 quarantine pens if there were more than two animals?

24 MR. OTAHAL: We have set up pen locations and I
25 have gone out personally and checked the biology issues,

1 in terms of where we were putting the pens and our
2 archaeologist has gone out and cleared that, in terms of
3 archaeology. So have already mapped out where we want to
4 put the pens and have done habitat and archaeological
5 surveys on that, because that's actually outside of the
6 footprint.

7 MR. RITCHIE: Sure. And again, and because
8 that's fairly new information, that's not in the current
9 draft of the translocation plan, right?

10 MR. OTAHAL: Right. And we actually -- we do not
11 intend to actually have a figure that shows where the pens
12 are, because that's something that would not be wise to
13 get out into the public, because we --

14 MR. RITCHIE: Which leads me to another question
15 is, do you know how close to roadways those pens are?

16 MR. OTAHAL: Yes, we do. I don't have the
17 numbers right off my head. But there's two -- there's
18 going to be two operable pens in over 940 acres.

19 MR. RITCHIE: And again, obviously not disclosing
20 where those pens are, are they close to roadways?

21 MR. OTAHAL: We can choose two of them that are
22 probably at least -- this is top of my head. I don't have
23 the figure for sure, but probably 7,000 feet.

24 MR. RITCHIE: And what types of materials are
25 involved to construct these pens?

1 MR. OTAHAL: This is wire mesh, and it's per Fish
2 and Wildlife protocol. There's a protocol for setting up
3 fences. I won't go into the details. That's been
4 docketed. There's specific guidelines for doing that.

5 MR. RITCHIE: But it requires a little bit of a
6 construction?

7 MR. OTAHAL: Yes, it does. And that's why we did
8 the biology in our surveys.

9 MR. RITCHIE: Does it require vehicle transport
10 of these materials to get them out to the pen sites?

11 MR. OTAHAL: There is one -- there a transmission
12 road that accessible and there's also a mining road that
13 is also accessible. If --

14 MR. RITCHIE: And you would have to traverse the
15 extra 7,000 feet --

16 MR. OTAHAL: Right.

17 MR. RITCHIE: -- with the vehicles?

18 MR. OTAHAL: No. They would walk the material
19 in.

20 MR. RITCHIE: Okay.

21 MR. OTAHAL: They would only use designated open
22 routes for transport.

23 HEARING OFFICER KRAMER: Mr. Ritchie, you're
24 really delving into the details here. And is there a
25 purpose for this?

1 MR. RITCHIE: There is. And we're discussing the
2 translocation plan. This was our opportunity to do it.
3 It's -- we're looking at the issues that were involved to
4 determine, you know, whether the translocation plan has
5 been adequately designed.

6 I probably might have been able to pare this down
7 a little bit, but with the time, you know, I wanted to
8 make sure that we understood what was involved, and how
9 they were making the decisions.

10 I am near the end, if that's okay.

11 HEARING OFFICER KRAMER: Okay, go ahead.

12 MR. RITCHIE: So I had one actually question
13 that's somewhat separate. But on the desert translocation
14 plan, let's see, I believe it's page 1-3, the very last
15 paragraph.

16 So this -- and actually, I guess just for
17 simplicity, Ms. Miller, if you could read that last
18 sentence that just begins with, "The project boundary".

19 MS. MILLER: Where it starts, "For the agency
20 preferred alternative..."?

21 MR. RITCHIE: No, no. The very last sentence of
22 that paragraph.

23 MS. MILLER: Oh, last sentence. I'm sorry. "The
24 project boundary modifications reduce the estimate of
25 Desert Tortoises requiring translocation for the project

1 from 176 to 93 adult individuals and from 32 to 53 to 29
2 to 48 juveniles."

3 MR. RITCHIE: So that I'm clear, that -- what
4 that difference is indicating is the difference between
5 the original footprint of the planned Calico site versus
6 the reduced footprint once the northern border essentially
7 was drawn down.

8 And this is the -- based off of the 2010 surveys,
9 this is the change in the number of tortoise in each of
10 those separate footprints, correct?

11 MS. MILLER: Correct.

12 MR. RITCHIE: Now, what I'm interested in is the
13 number of juvenile estimates. Now, the way I read that
14 range is the juvenile estimate range was reduced from
15 arrange of 32 to 53 in the total project footprint to 29
16 to 48 in the reduced size project footprint, correct?

17 MS. MILLER: That's correct.

18 MR. RITCHIE: So in the project as it exists
19 today, there's a range of 29 to 48 juveniles?

20 MS. MILLER: That's the estimate.

21 MR. RITCHIE: That's an estimate. And the change
22 in that was only three to five. So presumably there were
23 only about three to five juveniles outside of border of
24 the fence, correct?

25 MS. MILLER: That's -- based on the 31 to 51

1 percent estimate of the population of adults. So, you
2 know, we saw a total of 15 juvenile tortoise on the entire
3 project and then when you estimate based on the 93 or the
4 57, that's where we got the 32 to 53 and the 29 to 48. So
5 it's --

6 MR. RITCHIE: So it's not based on the actual
7 observations, it's an extrapolation.

8 MS. MILLER: It's based on the estimate, yeah.

9 HEARING OFFICER KRAMER: I think Ms. Black
10 forward wants to add something.

11 MR. RITCHIE: I have no additional questions at
12 this point.

13 MS. BLACKFORD: Yeah, I guess -- I'm sorry, I
14 just was going to say that those -- the numbers that are
15 currently in that translocation plan have not been
16 corrected per what was discussed earlier with Mr. Huntley.

17 MR. RITCHIE: I understand that.

18 MS. BLACKFORD: Okay.

19 HEARING OFFICER KRAMER: And was that it then?

20 MR. RITCHIE: I have no further questions. Thank
21 you.

22 HEARING OFFICER KRAMER: Did I see somebody on
23 the other side of the table wanting to ask questions?

24 MS. MILES: I'm trying to think of who I should
25 ask -- direct this question to. There's so much choices

1 at this point.

2 HEARING OFFICER KRAMER: Well, part of the idea
3 of the panel is you just toss it out there and somebody
4 will answer it.

5 CROSS-EXAMINATION

6 BY MS. MILES:

7 So I'd like to know when do tortoises tend to in
8 the project area begin to enter their winter burrows for
9 hibernation?

10 MR. OTAHAL: Yeah, we are anticipating October
11 30th to be our cutoff for when we can move tortoises based
12 on them going under ground.

13 MS. MILES: And is there a possibility that they
14 could enter their burrows before that?

15 MR. OTAHAL: It's weather dependent, so yes they
16 could be either shorter or longer, if they're outside of
17 the --

18 MS. MILES: So is it possible they could enter
19 their burrows as early as late September?

20 MR. OTAHAL: I don't believe it would be that
21 early, but probably mid-October. That's a possibility.

22 MS. MILES: And what data are you relying on when
23 you're estimate when they're going to enter their burrows?

24 MR. OTAHAL: I don't know the exact derivation of
25 that. That's just kind of a standard that I've seen. I

1 don't know the exact derivation of that. That is based on
2 field research.

3 MS. MILES: And do you anticipate that the
4 applicant will be able to begin clearing Desert Tortoise
5 this year?

6 MR. OTAHAL: Yes, because with the very small
7 footprint that they are going to be operating on, we're
8 only going to be translocating two animals this spring.
9 The rest of the animals that will be within the footprint
10 are going to be moved just outside of the fence that they
11 are going to be establishing. The assumption being that
12 those animals are going to remain within their home range
13 and they're actually going to be better off just having
14 been moved slightly rather than this longer distance
15 translocation.

16 MS. MILES: Is there a possibility that the
17 tortoises that are in that initial area could be in their
18 burrows?

19 MR. OTAHAL: I suppose that is a possibility.

20 MS. MILES: And if they were, would they be
21 cleared from their burrows during hibernation?

22 MR. OTAHAL: I believe that we would not be
23 moving them if they are in hibernation.

24 MS. MILES: So would you not allow the
25 construction to go forward if they were in hibernation and

1 were not moved?

2 MR. OTAHAL: I'll trying the think about it. I
3 don't believe that we would -- if they are in the
4 hibernation already, we would be moving them. And that's
5 part of the reason that we do have the October 30th cutoff
6 date, because we don't want to be moving hibernating
7 animals.

8 MS. MILES: Right. So if they are in their
9 burrows, then you would not allow construction to go
10 forward?

11 MR. OTAHAL: Well, there's a difference between
12 being in their burrows and being in hibernation, because
13 active animals can be in their burrows as well. So it's
14 not quite that clean cut.

15 MS. MILES: So if they're in their burrows, would
16 you excavate them -- I'm not sure what the term is --

17 MR. OTAHAL: Yes.

18 MS. MILES: -- out of their burrows?

19 MR. OTAHAL: Yes, we would.

20 MS. MILES: And how would you be able to decipher
21 if they've entered hibernation?

22 MR. OTAHAL: I don't know how their --

23 DR. HUNTER: If their eyes are closed.

24 MR. OTAHAL: Yeah, I don't know how we can --

25 (Laughter.)

1 MR. OTAHAL: I don't know how we can determine
2 that. It's really habitat -- I mean, weather based, and
3 based on the timing.

4 MS. MILES: So are you --

5 MR. OTAHAL: So the assumption is that if it's
6 before October 30th, that they're not in hibernation yet.

7 MS. MILES: So there's a possibility that you
8 could excavate hibernating tortoises on that assumption?

9 MR. OTAHAL: I would say there is a possibility,
10 yes, but that's -- I mean that's the standard protocol for
11 moving tortoises.

12 MS. MILLER: I think it's based on temperature.
13 Really, I mean, they don't go into hibernation if there's
14 still a possibility for them to go forage and get water and
15 anything else. You know it's like if the temperatures are
16 low enough for a long enough time, then they'll go into
17 hibernation. And during the clearance surveys, we're
18 going to be clearing every burrow. So you know, we'll
19 know if they're there. And I really -- I think the
20 October 30th date is pretty solid data collection from the
21 years of tracking that they've done on tortoise.

22 MS. MILES: Does September 30 --

23 MS. MILLER: Yeah, I'll let Ashleigh --

24 MR. OTAHAL: The other thing to consider is that
25 they will be very early in their hibernation period if at

1 all, because we're -- you know, we're not operating a
2 month or two into the hibernation season.

3 So you know, it would be a couple weeks maybe if
4 that's occurring.

5 MS. BLACKFORD: This is Ashleigh from the
6 Service, I think one of the advantages that we do have is
7 that we do have, what are called do subsurface plots from
8 long range sampling. And if they're -- these are
9 tortoises that are wearing transmitters currently and
10 they're part of what has been used to develop the survey
11 protocols and how we determine the flexibility, knowing
12 how many animals are above ground and below ground at any
13 given time during the survey period.

14 So using that as a reference population, we could
15 actually determine whether or not hibernation has started
16 early? That varies at do surface plots down in
17 Ord-Rodman. There's one in Superior-Cronese.

18 So if that is something that we witness this year
19 based on climate, that's something we could address. I do
20 not anticipate that we would be allowing the excavation of
21 tortoises from burrows during hibernation. There's
22 alternatives to creating a buffer around that particular
23 burrow, fencing that particular individual in until
24 climate conditions were -- what's the word I'm looking
25 for -- not advantageous, but appropriate for a tortoise to

1 be above ground and moving. And once that animal moves
2 above ground, we could then move it to an appropriate
3 area.

4 So we are definitely not -- the Service is not
5 supportive of moving any animal that has already
6 undergone -- has gone down into hibernation for the
7 season. So we are definitely taking that into
8 consideration and would not be permitting something other
9 than that.

10 MR. OTAHAL: And also, I think with the new 1A
11 proposal that we would only be talking about, maybe two or
12 three animals tops. I mean I don't know the exact number.
13 I can look on a figure here, but, you know, we're talking
14 about a handful of animals that would have to be moved.

15 MR. HUNTLEY: And this is Chris. Ms. Miles, we
16 have language in our conditions that basically prohibit
17 clearance surveys for tortoises past October. So if that
18 was to occur, it would have to be approved through the
19 Commission, through Fish and Game, through BLM and through
20 the Service. So there actually is some language.

21 MS. MILES: When you say past October, do you
22 mean past the beginning or the end of October?

23 MR. HUNTLEY: We do not specify that in our
24 document. So through October, yeah, would tend to mean
25 through the end of October.

1 MS. MILES: And so there's a possibility then
2 that tortoises that are in hibernation based on your
3 conditions, would be allowed to be moved?

4 MR. HUNTLEY: I think Ashleigh just clarified
5 that statement.

6 MS. MILES: Okay. I was speaking about your
7 conditions not based on Fish and Wildlife Service.

8 MR. HUNTLEY: No, I understand that, but the date
9 of hibernation and the variable from year to year and if,
10 for example, they use the surveys that Ashleigh spoke of
11 they would know, and they would prohibit that.

12 MS. MILES: I was listening to the discussion
13 about buffering for if you discovered a diseased animal in
14 a receptor site. Now, could you describe what mean when
15 you say buffer? Do you just mean that you would make sure
16 that there was a certain amount of space or would there
17 actually be some construction that would prevent movement?

18 MR. OTAHAL: No. That's just a spatial buffer, a
19 GIS exercise. Say, here's the animal that we found. This
20 in it is positive. We draw a bubble around it.

21 MS. MILES: And did you get the number since you
22 were discussing it, because I believe that the number was
23 not identified.

24 MR. OTAHAL: 2.5 kilometers.

25 MS. MILES: 2.5 kilometers. And how far have

1 tortoises been known the walk once they've been
2 translocated?

3 MR. OTAHAL: Yeah, I believe that buffer is based
4 on a half of a average range -- home range of a tortoise.
5 So that's the derivation of that and that comes from the
6 guidance from DTRO, Desert Tortoise Recovery Office.

7 MS. MILES: My question is are you aware of any
8 examples of tortoises that have walked long distances
9 after they were translocated?

10 MR. OTAHAL: Yeah, sure. And -- yeah. Animals
11 do move after being translocated, yes.

12 MS. MILES: And so is it possible that tortoises
13 would move more than that two and a half kilometers after
14 they've been translocated?

15 MR. OTAHAL: It's possible, yes.

16 MS. MILES: And so it's possible that a healthy
17 tortoise might then encounter a sick tortoise -- a
18 diseased tortoise in the receptor sites?

19 MR. OTAHAL: It is a possibility, yes.

20 MS. MILES: And so is there any mitigation that
21 you've built in in order to address that situation, that
22 potential?

23 MR. OTAHAL: We're following the guidance of the
24 Desert Tortoise Recovery Office and this is the current
25 guidance.

1 MS. MILES: That's all my questions for the
2 moment.

3 HEARING OFFICER KRAMER: Any other parties?

4 MR. BASOFIN: Josh Basofin with Defenders of
5 Wildlife. I actually just have a clarification for Mr.
6 Otahal.

7 CROSS-EXAMINATION

8 BY MR. BASOFIN:

9 You had said, I believe, that there was double
10 the amount of receptor area in the Ord-Rodman DWMA, is
11 that right?

12 MR. OTAHAL: That's a rough guesstimate looking
13 at the GIS, yes.

14 MR. BASOFIN: Okay, can you just explain what you
15 mean by double the amount of receptor area what's that
16 relative to?

17 MR. OTAHAL: Yeah, there's a believe a little
18 over 9,000 acres that have been surveyed and/or will be
19 finishing up surveys this spring as targeted receptor
20 sites for the translocation plan as it's documented in the
21 figures now. And that does not include all the area
22 within the Ord-Rodman. This is just areas that we have
23 selected.

24 And as I said, there's probably at least that
25 much more that was not pre-selected.

1 MR. BASOFIN: I see, so there's -- so your
2 testimony is there's potentially 18,000 acres, double the
3 9,000 that you've already --

4 MR. OTAHAL: Again, that's a really rough
5 guesstimate, and we would do the same GIS exercise that we
6 did to select these original ones. We would be outside of
7 wilderness. We would be outside of allotments for cattle.
8 We would be in areas that don't have over 20 percent
9 slope, et cetera.

10 So we would go through the same selection
11 criteria for these new locations.

12 MR. BASOFIN: Okay, but I just want to
13 understand. So you're saying that there's potentially
14 18,000 acres of receptor sites in the Ord-Rodman DWMA?

15 MR. OTAHAL: That's a real rough guesstimate
16 without actually doing the exercise.

17 MR. BASOFIN: Okay, thank you.

18 HEARING OFFICER KRAMER: Anyone else?

19 MS. CUNNINGHAM: Yes. Laura Cunningham, Basin
20 and Range Watch.

21 HEARING OFFICER KRAMER: Oh, yes.

22 CROSS-EXAMINATION

23 BY MS. CUNNINGHAM:

24 A follow-up question from --

25 HEARING OFFICER KRAMER: Can you speak up, Laura?

1 MS. CUNNINGHAM: Yeah. Can you hear me?

2 HEARING OFFICER KRAMER: Well you're soft spoken.

3 MS. CUNNINGHAM: I had a follow-up question from
4 Ms. Miles. I participated in the Hyundai car testing
5 track translocation in 2005 and we had a tortoise that was
6 transmitted that moved 20 miles in two weeks. And I was
7 wondering if there's a mitigation strategy to handle that?

8 HEARING OFFICER KRAMER: Did you hear the
9 question?

10 MR. OTAHAL: Yeah. Currently, there hasn't been
11 anything thrown out on the table to address that kind of
12 issue of animals wandering. I mean that's what they'll
13 do. I mean, that's what they do in the natural population
14 too is they wander around.

15 Some adult males, I think, have, you know, gone a
16 hundred plus miles, you know, in their normal wanderings.
17 So I mean that's what animals do.

18 And let's recognize that in the first year after
19 translocation that these animals are trying to get back to
20 their home range, and that they will wander around. But
21 right now, I'm unaware of anything that is applicable to
22 address that in any kind of a rationale way if anybody
23 is -- anybody has suggestions, you know, again this is a
24 draft plan, so provide them, and if it sounds like a
25 reasonable approach, we would be more than happy to

1 implement that.

2 MS. CUNNINGHAM: Okay. Thank you. That was a
3 problem on the Hyundai translocation. Thank you.

4 HEARING OFFICER KRAMER: What was the nature of
5 the problem? The tortoise obviously is healthy, if it's
6 going that far?

7 MS. CUNNINGHAM: Well the problem was is healthy
8 tortoise moved into an unhealthy population. And I'm
9 wondering about if tortoises are translocated over the
10 fence in the northern edge of the project, and then they
11 wander 20 miles in two weeks into a diseased population, I
12 mean this is not addressed in the translocation plan.

13 MR. OTAHAL: Yeah. If they were just moved over
14 the fence, for example, in this early phase, the wandering
15 would probably be a lot less, because the is assumption
16 that you're most likely moving the animal into its
17 existing home range, so I wouldn't be motivated to do
18 these long distance travels.

19 Now, for the animals that we're moving in
20 Ord-Rodman, there's probably going to be motivation to be
21 trying to get back to their existing habitat, since
22 they're being moved further away.

23 MS. CUNNINGHAM: The example at Hyundai that I
24 was involved in, in 2005, was an adult male tortoise that
25 was moved over the fence from the Hyundai raised track

1 project in Kern County, and it then wandered in a straight
2 beeline 20 miles cross highway 14 and went into a
3 completely different area of the desert.

4 MR. OTAHAL: Yeah. And so I would suggest that
5 that's just an example of what normal wandering is
6 associated with some of these animals, because it wasn't
7 trained to get back to its home range. It was going
8 somewhere else.

9 HEARING OFFICER KRAMER: Okay, I think we
10 have -- redirect?

11 MS. FOLEY GANNON: Actually, since I didn't get
12 to even ask my witness any questions, I'd just like to ask
13 her a couple questions.

14 HEARING OFFICER KRAMER: Go ahead.

15 MS. FOLEY GANNON: She sort of just got on this
16 panel without any request from me, which was fine.

17 REDIRECT EXAMINATION

18 BY MS. FOLEY GANNON:

19 But first before I do that, I did have a question
20 and it's either for Mr. Huntley and/or Ms. Moore. Are you
21 aware of the draft decision in the Ivanpah case?

22 MR. HUNTLEY: I have not read the draft decision.

23 MS. FOLEY GANNON: Ms. Moore, are you aware of
24 the Ivanpah case?

25 MR. MOORE: No. Not read that decision, no.

1 MS. FOLEY GANNON: Okay, because in looking at
2 that draft decision, I believe that the mitigation rate
3 ratio there is 3 to 1 and I believe that the density of
4 tortoise was higher than the site. So I'm just wondering
5 if -- and maybe this is something if we're going to get
6 back together and talk, maybe you could look at it and see
7 if there's a reason that there would be a different
8 approach here than taken on that case, if there's
9 something different about this habitat or this location or
10 something, if we could speak to that.

11 MR. HUNTLEY: I think we will take a look at
12 that. I do believe that Ivanpah didn't calculate numbers
13 of juvenile tortoises. So there are some differences
14 between the two projects.

15 MS. FOLEY GANNON: Okay. If we could get an
16 insight on that, that would be helpful.

17 And then Ms. Miller just a couple of
18 clarifications, which might be helpful. There was a
19 number of discussions here about factors that could or
20 could not be included or additionally added to the
21 translocation plan. And I think it's been mentioned a
22 couple of times here. This plan is a draft plan right
23 now, is that correct?

24 MS. MILLER: That's correct.

25 MS. FOLEY GANNON: And are you working actively

1 with the agencies to try to flesh out exactly what these
2 parameters should be and what the criteria should be?

3 MS. MILLER: Yes, we're working very closely with
4 the agencies.

5 MS. FOLEY GANNON: Okay, thank you. And also
6 with this Phase 1A, now I think -- I can't remember if it
7 was you or Mr. Otahal said that you think there's going to
8 be like one or two tortoises likely moved. I assume in
9 reading the plan that you were going to be studying the
10 tortoises that are moved and how the plan is working.

11 Would that information then inform how
12 translocation is done in 1B and then subsequently in 2 as
13 well?

14 MS. MILLER: Yes. It's definitely -- it's
15 helpful to be able to do a smaller area to begin with, and
16 be able to watch -- you know, we're going to transmitter
17 every tortoise that we move and we'll be blood testing
18 everything, so it will be helpful to the future phases of
19 the project.

20 MS. FOLEY GANNON: Okay. Thank you I have no
21 further questions.

22 HEARING OFFICER KRAMER: Okay. I think we can
23 move on to -- Commissioner Eggert had a question or two.

24 PRESIDING MEMBER EGGERT: Thank you, Mr. Kramer.
25 I think in the spirit of the panel, I'm going to throw

1 this out to whoever is interested and willing to answer.

2 So we've heard a lot about the Fort Irwin
3 translocation effort and its efficacy or perhaps
4 inefficacy based on the survival rate.

5 Do we have other -- do we have any examples that
6 include data that go over, you know, more than just a
7 short period, a year or more, that have actually shown
8 what we might characterize as successful translocation?

9 MR. OTAHAL: I can't speak specifically to that,
10 but one of the things that I did want to point out is that
11 there has been a paper done on the Fort Irwin looking at
12 the efficacy of the project in terms of predation that was
13 the biggest issue that was raised on that particular
14 experience. And there is a abstract out now on the paper.
15 The paper has not actually come out. So this is kind of a
16 pre-abstract. I believe this was docketed.

17 And it basically shows that the predation rate
18 between translocated animals, control animals and resident
19 animals, was basically the same. And what the indication
20 from this paper is that, yes the predation rate was very
21 high in the first -- in 2008, for example, but that was a
22 range-wide phenomenon. It wasn't specifically associated
23 with the translocation itself.

24 PRESIDING MEMBER EGGERT: And I guess is
25 there -- it's always good to have more than one data point

1 or set of data points. Is there either other studies that
2 have similar level of detailed analysis?

3 MR. MOORE: This is Tonya Moore from the
4 Department. We know of none.

5 PRESIDING MEMBER EGGERT: Okay.

6 MR. OTAHAL: And that's exactly one of the
7 benefits of this is that -- I mean this is new ground that
8 we're going over. And this will provide very good
9 management direction, you know, to -- I mean I've already
10 talked with the applicant and indicated that, you know,
11 this would make some very good research papers, because
12 this translocation is really designed like a science
13 project more than a monitoring program. I mean, it's very
14 rigorous.

15 HEARING OFFICER KRAMER: Is somebody on the
16 phone.

17 PRESIDING MEMBER EGGERT: Was that Ms. Blackford?

18 MS. BLACKFORD: This is Ashleigh with the
19 Service. I just wanted to concur with Tonya Moore, that
20 this type of -- Fort Irwin is really the only one that has
21 occurred at that scale and for that longevity.

22 HEARING OFFICER KRAMER: Okay.

23 MR. RITCHIE: I know Mr. Cashen is not on the
24 panel, but he may be able to offer some --

25 PRESIDING MEMBER EGGERT: Sure. Sure, please.

1 MR. CASHEN: Yeah, there's been a paper that was
2 published that did a thorough review of translocation
3 projects for amphibians and reptiles. And I've reviewed
4 that paper, as well as several other papers.

5 And to answer your question, there have been very
6 few, if any, long term studies. And when we're concerned
7 about a species that lives a very long time, and that has
8 very low reproductive rate, like the Desert Tortoise, it's
9 the long-term success that we are most interested in.

10 And so I'm not sure what you would consider
11 success, if it's the animal is still alive, the day after
12 we move it, then that's one thing. If it's alive a year
13 later, that's something else. Certainly, you could
14 release an animal and it's still breathing and it's
15 otherwise completely stressed out and mangled and about to
16 die and you might say well it's alive, so that was
17 successful.

18 So it depends on how you define it. And what
19 most researchers have agreed to is the ability to
20 contribute to the population in which its deposited. So
21 is it going to be able to find a mate, reproduce, and it's
22 offspring live to grow and mature to the age where then
23 they can reproduce. That would be the true sign of
24 success, and there's been very little, if any, research on
25 that.

1 MR. OTAHAL: I would point out that we do have
2 success criteria outlined in the plan.

3 HEARING OFFICER KRAMER: Such as?

4 MR. OTAHAL: I'm looking for the specific area
5 where we discuss that. Give me a moment.

6 PRESIDING MEMBER EGGERT: Mating and reproduction
7 certainly seems like a reasonable --

8 HEARING OFFICER KRAMER: And you're speaking
9 about the Desert Tortoise relocation plan exhibit 93?

10 Okay, people are saying that is what Mr. Otahal
11 is looking at.

12 MR. OTAHAL: Yeah I believe that's on page 2-23,
13 24, and 25.

14 PRESIDING MEMBER EGGERT: Okay. And that
15 includes success factors of whether or not the plan is
16 successful -- or how to evaluate it for it's --

17 MR. OTAHAL: Correct.

18 HEARING OFFICER KRAMER: And it's a five year
19 monitoring period?

20 PRESIDING MEMBER EGGERT: Okay. I guess for my
21 own information, and my understanding about translocation
22 and mitigation through land acquisition, I guess this is
23 maybe a question for Ms. Moore perhaps the staff. What's
24 the right way to think about translocation as a component
25 of mitigation?

1 MR. HUNTLEY: This the Chris Huntley.
2 Translocation is one -- exactly one component of an
3 overarching mitigation strategy that includes a number of
4 things, land acquisition, land enhancement, or enhancement
5 of that land that's been acquired, implementation of raven
6 control, removal of the threats, installation much
7 fencing, things like that. So it's one strategy. It's
8 not the sole, you know, crux that we're leaning on to
9 mitigate for the tortoises, but it is one component of it.

10 And what we're hoping to do the raise the
11 carrying capacity of the lands through enhancement and
12 then reduce threats, so tortoise populations can come back
13 a little bit, such as raven predation and things like
14 that, or fencing off areas from off highway vehicles, or
15 fencing highways. There's a number of factors that are
16 employed. It doesn't rely on one single thing.

17 PRESIDING MEMBER EGGERT: And then in terms of,
18 are we current -- is the current proposed plan to
19 translocate two regions that are also being acquired for
20 mitigation or are those separate geographic regions?

21 MR. HUNTLEY: The translocation sites that have
22 been identified so far one is an existing area of critical
23 environmental concern and the another is a desert wildlife
24 management area. So those are not being the acquired
25 areas. I didn't believe the actual lands, the mitigation

1 lands, have been identified as of yet for the mitigation
2 ratios.

3 PRESIDING MEMBER EGGERT: Okay, then in terms of,
4 I guess, the criteria for the selection of those
5 mitigation lands, those would be based on --

6 MR. HUNTLEY: We have a number of criteria that
7 must contain tortoises, must be free from disturbances,
8 must be, you know, low threats. They're identified in the
9 Condition of Certification, but there's a series of items
10 that we'd be looking for that the area would have to meet
11 those criteria before it would be selected.

12 MR. OTAHAL: And one quick point, one of the
13 reasons that we are putting it into the DWMA is that under
14 BLM, that has the most stringent protection, other than
15 wilderness areas. And we -- there is a policy, let's put
16 it that way, that we don't move tortoises into wilderness
17 areas.

18 So this -- if you're moving tortoises on to BLM
19 land, this is the best protected area that we could
20 provide for them.

21 PRESIDING MEMBER EGGERT: Okay, that's helpful.
22 Actually, I would invite if either Ms. Blackford or Ms.
23 Moore had any thoughts on the last couple of questions,
24 including translocation and mitigation?

25 MR. MOORE: I'm sorry. Hi to get up and -- and I

1 came back and --

2 (Laughter.)

3 PRESIDING MEMBER EGGERT: That's okay. Actually,
4 let me just repeat the one question that I -- if you're
5 inclined to answer, please do so. If not, don't worry
6 about it. It just has to do with trying to advance my own
7 understanding of the usefulness and the use of
8 translocation as a component of mitigation.

9 HEARING OFFICER KRAMER: And was that Ms. Moore?

10 MR. MOORE: Yes, I'm sorry. Yes, it was.

11 I don't have anything more to add than that. I
12 mean, it might just be because it's late and I can't
13 think, but --

14 (Laughter.)

15 PRESIDING MEMBER EGGERT: I can appreciate
16 that.

17 All right, I don't have any further questions.
18 Thank you.

19 HEARING OFFICER KRAMER: Okay --

20 MR. BASOFIN: Mr. Kramer, Josh Basofin. Could I
21 just ask one follow-up question from that?

22 HEARING OFFICER KRAMER: Go ahead.

23 RECROSS-EXAMINATION

24 BY MR. BASOFIN:

25 Mr. Huntley, is it your testimony that

1 translocation is a -- is it itself a mitigation measure?

2 MR. HUNTLEY: Staff assessed -- this is Chris
3 Huntley. One of the mitigation measures is translocation
4 plan, yes it is.

5 MR. BASOFIN: Thank you.

6 HEARING OFFICER KRAMER: Okay. Are any of the
7 intervenors ready to present their witnesses this evening?

8 I guess Mr. Cashen needs to go on tonight,
9 because of his scheduling issues.

10 MS. MILES: Yeah we would like to have Mr. Cashen
11 testify regarding the Desert Tortoise translocation plan
12 tonight, and we would like to reserve the opportunity to
13 supplement his testimony if necessary after we review the
14 Staff Assessment.

15 HEARING OFFICER KRAMER: Okay, with some kind of
16 written document?

17 MS. MILES: Written, possibly written and oral
18 testimony.

19 HEARING OFFICER KRAMER: Okay, because it may be
20 that if you submit something in writing, people will want
21 to cross-examine him a little bit. So we'll see.

22 MS. MILES: Right.

23 HEARING OFFICER KRAMER: So you were previously
24 sworn, correct, Mr. Cashen?

25 MR. CASHEN: In Barstow.

1 HEARING OFFICER KRAMER: Still in California, so
2 good enough.

3 (Laughter.)

4 HEARING OFFICER KRAMER: Go ahead.

5 DIRECT EXAMINATION

6 BY MS. MILES:

7 Mr. Cashen, whose testimony are you sponsoring
8 tonight?

9 MR. CASHEN: My own.

10 MS. MILES: And for the record, I would like it
11 to reflect that these are Exhibits 443 through 453. This
12 is the additional testimony, and other documentation.

13 Mr. Cashen, would you -- and you formulated your
14 own opinion in your testimony, is that correct, your
15 testimony reflects your own opinion?

16 MR. CASHEN: Yes.

17 MS. MILES: Thank you. Would you like to comment
18 on the applicant's translocation plan that you reviewed in
19 general or?

20 I'm not asking for a -- you know, I mean,
21 basically I know it's all in your testimony. I just
22 wondered if you had any specific comments you wanted to
23 add?

24 MR. CASHEN: I think it's a complete disaster
25 waiting to happen.

1 MS. MILES: Okay, thank you.

2 MR. CASHEN: I think there's been no real effort
3 to try and improve on the lessons learned from Fort Irwin,
4 which was the most comprehensive study on what happens
5 when we translocate tortoises. And as a matter of fact,
6 there were many, many things that were done before the
7 tortoises at Fort Irwin were translocated. Almost none
8 much which have been done here.

9 MS. MILES: Okay, thank you.

10 Yesterday, the applicant filed an abstract, and I
11 was wondering if you had any comments on that?

12 MR. CASHEN: I --

13 MS. FOLEY GANNON: We haven't offered that into
14 evidence yet, but we would like to.

15 HEARING OFFICER KRAMER: Were you intending to?

16 MS. FOLEY GANNON: We would intend to, yeah, so
17 we can give it an exhibit number. It's an abstract of
18 analysis of predation on Desert Tortoise populations in
19 the Mojave Desert is the title of it. And we docketed it
20 yesterday.

21 HEARING OFFICER KRAMER: What did you actually
22 docket, because your Email just had a web link, was that
23 it?

24 MS. FOLEY GANNON: It was just a link, yeah.

25 HEARING OFFICER KRAMER: I was able to reduce

1 that to a PDF, so I'll send that around to everyone. It's
2 just one page. Does that sound about right size?

3 MS. FOLEY GANNON: Yeah, that's about right.

4 HEARING OFFICER KRAMER: Okay, so that would be
5 Exhibit 100 and it's the abstract as you described it.

6 (Thereupon the above-referenced document
7 was marked by the Hearing Officer as Exhibit
8 100 for identification.)

9 MS. FOLEY GANNON: Thank you.

10 MR. CASHEN: Should I proceed?

11 HEARING OFFICER KRAMER: Go ahead.

12 MS. MILES: Yes, please.

13 MR. CASHEN: I don't know the context of why the
14 applicant wanted to submit this as an exhibit. I believe
15 that staff may have referred to it as well, but I'm not
16 positive on that. And I know that there's been a lot of
17 controversy revolving around this issue of the cause of
18 mortality with -- that was observed with tortoises
19 involved in the Fort Irwin project.

20 And I, as a result, contacted one of the authors
21 of this paper, Dr. Kristin Berry, and I asked her about
22 this issue, because I, myself, was confused. And what she
23 told me was that this is being spun completely wrong.
24 This the not what the study reveals, that a lot of people
25 are spinning it as this was just natural mortality. This

1 was the same rate of predation as occurs naturally or
2 occurred naturally at that time. And if that's how people
3 want to interpret it, I encourage them to contact the
4 authors have this forthcoming paper.

5 HEARING OFFICER KRAMER: Do you think we could
6 get her to visit us at our next hearing?

7 MR. CASHEN: I would love it. I do not know if
8 she --

9 MS. MILES: I think I can answer that. Actually,
10 I spoke with her probably about two months ago, and she
11 said that she would come at the request of the Energy
12 Commission, but she would not come because we had asked
13 her, but she would be happy to come at the request of the
14 Energy Commission. And in fact, that very thing had
15 happened in the Ridgecrest Project, and that's when she
16 appeared and was willing to provide testimony, because she
17 represents the Government agency.

18 HEARING OFFICER KRAMER: And which agency is
19 that?

20 MS. MILES: The Bureau of Reclamation,
21 right -- I'm sorry USGS.

22 HEARING OFFICER KRAMER: And I think also the
23 lead author, Mr. Esque was recommended to us as another
24 good source of information.

25 So does she need to hear directly from somebody

1 of the Commission or could you convey our invitation?

2 MS. MILES: I think it would be best if it was a
3 direct communication.

4 HEARING OFFICER KRAMER: Okay. Could you send me
5 her contact information then?

6 MS. MILES: Sure. Mr. Cashen, did you want to
7 proceed?

8 MR. CASHEN: Yeah. I have more thoughts on this
9 abstract, if you'd like me to share them.

10 Okay, there's no doubt that drought adversely
11 affects Desert Tortoise populations. There's no doubt
12 that predators adversely affects Desert Tortoise
13 populations. I've reviewed some other studies that
14 examine this very issue, the actual papers. And this is
15 just an abstract. So I've reviewed some actual papers on
16 this topic.

17 And there was this -- there was a study that was
18 reported in a book chapter that was written by Jeffrey
19 Lovich on Desert Tortoise. And they reported a five to 25
20 percent adult mortality period during a two year drought
21 in the western Mojave. But they suspected that predation
22 and possibly disease was the cause of that. During that
23 exact same period, they observed 50 percent mortality of
24 tortoises in the eastern Mojave at a particular study
25 site.

1 And I it, I think, just speaks to the nature of
2 the complicated -- or the complicated nature behind this
3 issue. And if people are trying to spin this as every
4 time we have a drought, we lose 50 percent of our
5 tortoises, whether they've been translocated or not,
6 whether they're in the control population or the
7 translocation population.

8 If we lose 50 percent every time there's a two
9 year drought, we are in a world of hurt with tortoises.
10 That is a bad situation. And to me that says, we cannot
11 afford to lose another tortoise. We cannot afford to
12 develop 6,000 plus acres of very high quality habitat. We
13 cannot afford to take these chances. We cannot afford a
14 translocation plan that has not examined any single
15 variable yet. We cannot be taking these chances if we
16 want to see Desert Tortoises around in the future.

17 If this is really the case, what this abstract
18 says, and we're losing this many tortoises, we need to do
19 everything we possibly can to save this organism.

20 MS. MILES: Than you, Mr. Cashen. I was
21 wondering if you could talk just briefly about concerns
22 regarding handling of Desert Tortoises and what happens
23 when they vacate their bladder and why that's such a
24 serious concern and when that comes up, like, in terms of
25 disease testing or movement of tortoises?

1 MR. CASHEN: Yeah most wildlife exhibits some
2 form of stress when they're captured and handled. You
3 know, if something that was 10 miles bigger than you,
4 snatched you up off the street and started doing weird
5 things to you, you'd probably get a little stressed out as
6 well. And so that's typically what happens when animals
7 are captured and handled.

8 And one of the responses of the tortoise is that
9 it will vacate its bladder. And that -- that's
10 significant in that the bladder has two functions in a
11 tortoise. One is is that it stores water that can be
12 reabsorbed and the other is is that it -- it helps balance
13 minerals and nutrients in the tortoise. And so when
14 it -- in some cases they may only have a few weeks or a
15 month of a year in which they're collecting, taking in
16 water and nutrients and forage. And the rest of the 11
17 months they are trying to balance it all out.

18 And this is all sort of regulated by the bladder.
19 And so when they vacate their bladder, when they void
20 their bladder because some giant being just picked them up
21 and started doing weird things to them, it throws
22 everything off. And there's been studies that have shown
23 that there's a reduced survivorship when that happens.

24 Now, when you take that tortoise, whether it's
25 vacated its bladder or not -- but especially when its

1 vacated its bladder and you move it to another spot, where
2 it does not know where food and water and cover is, it
3 just exacerbates the whole problem, because the
4 tortoise -- if it has vacated its bladder, it doesn't know
5 where to go to get food to try and restabilize that
6 nutrient balance, and that causes even more mortality.

7 So it's kind of a -- it's an interaction effect.
8 You could pickup a tortoise. It voids its bladder, and
9 put it down. You have a certain level of mortality. You
10 pick it up, it voids its bladder, you move it. You have a
11 even additional higher level of mortality.

12 MS. MILES: Thank you, Mr. Cashen. That's all my
13 questions for now.

14 HEARING OFFICER KRAMER: Any questions for
15 cross-examination for Mr. Cashen?

16 MS. FOLEY GANNON: I have no questions.

17 MR. OTAHAL: Am I allowed to say something?
18 Since I was being asked questions, I was just wondering.
19 I mean just real quick.

20 I was wondering if Mr. Cashen was aware that
21 there is actually a protocol for rehydrating tortoises
22 that have voided their bladder, that is part of the
23 translocation efforts. There are protocols for dealing
24 with that, so they don't just put tortoises out in the
25 field after they have voided their bladder.

1 MR. CASHEN: I did see that in the plan, and it
2 was confusing to me, because it, in one hand -- in one
3 paragraph is said the goal was to get rid of the tortoise
4 in 30 minutes. And the next paragraph it said that there
5 would be this rehydration regime that would last 10 hours
6 or I don't even know how long, but it was completely sort
7 of the opposite spectrum of this 30 minutes.

8 So again, to me, that just sort of demonstrated
9 that there hadn't been any real thought put into this.

10 MR. OTAHAL: To clarify your confusion, the idea
11 is that we do want to handle the tortoises as little as
12 possible, so if all conditions are perfect, we move the
13 animals as quickly as possible and release them as quickly
14 as possible.

15 But if they do void their bladder, we have a
16 protocol for rehydrating them, i.e. we put them in a tub
17 of water. That's about tortoise ankle deep --

18 (Laughter.)

19 MR. OTAHAL: -- and they refill their bladder
20 and then we release them. So we do handle those a little
21 bit longer in order to address the issue of dehydration.

22 MS. MILLER: And in the plan, it says 10 minutes
23 in the water.

24 HEARING OFFICER KRAMER: They sound almost like
25 sponges.

1 (Laughter.)

2 HEARING OFFICER KRAMER: Okay, any questions from
3 other parties of Mr. Cashen?

4 MS. MILES: I had a follow-up question. And how
5 do you address the stress issue that's related to the
6 movement of tortoises? Do they've -- is there a some
7 provision for that as well?

8 MR. OTAHAL: Yes, and that's why we try to handle
9 them as quickly as possible, to reduce that stress to the
10 animal.

11 I mean, it's well understood that it does stress
12 the animal, and that we do lose animals. I mean that's a
13 given, and that is in our analysis and that's in the Fish
14 and Wildlife analysis, and that's also in the Fish and
15 Game analysis, that there will be a certain number that
16 are lost during translocation.

17 HEARING OFFICER KRAMER: Any other questions?

18 CROSS-EXAMINATION

19 BY MR. BASOFIN:

20 I just had a question. And Mr. Otahal, would you
21 say that an animal that's being handled and voids its
22 bladder and then has to be rehydrated in a tub, would you
23 say that animal is experiencing the type of stress that
24 Mr. Cashen speaking of?

25 MR. OTAHAL: Sure. I mean if we have to

1 handle --

2 MR. BASOFIN: Thank you.

3 MR. OTAHAL: -- the animal at a longer period of
4 time, there's some additional stress associated with that.

5 HEARING OFFICER KRAMER: Mr. Ritchie.

6 MR. RITCHIE: I did have a quick question for Mr.
7 Cashen.

8 CROSS-EXAMINATION

9 BY MR. RITCHIE:

10 Mr. Cashen, you discussed earlier the abstract
11 and the effect of predation and whatnot. Is it possible
12 that -- and I believe this was mentioned. I'm sorry, I
13 can't cite to where this was mentioned before, but that
14 predation has been witnessed in the control populations
15 that translocated populations and the resident
16 populations. Is it possible that the handling of these
17 tortoises to tag them as Mr. Huntley as said that for
18 everyone translocated tortoise, you have to handle two
19 others. Could that be increasing predation by attracting
20 human scent to these tortoises?

21 MR. CASHEN: Yes, absolutely. And I had a
22 reference to that in my testimony, and after talking to
23 Dr. Berry about this paper that is being released, that is
24 what she suggested to me, that what is occurring is
25 whether the tortoise is moved or not, all of these

1 tortoises that compromise this study, that is being
2 written about, have been handled. They have -- the reason
3 that they're in this study because they have a transmitter
4 on them. They can track what happens to them.

5 In the process of putting a transmitter on them,
6 they are manipulated. They are -- people handle them.
7 People are following them. They are constantly exposed
8 to -- or frequently exposed to the researchers. And the
9 other research that read, sort of adds all up to
10 supporting this phenomenon of researcher induced
11 mortality.

12 There was an effort that was made to head start
13 tortoises. And you may have heard of this. This is
14 raising juvenile tortoises to the point where they're a
15 little bit bigger and then they can release them and
16 they're not as susceptible to predators.

17 And during the first several years of that
18 effort, when they lifted the gate up and let them out, the
19 predators whacked them all, all 100 percent mortality.
20 And it's because the predators learn hey, that pickup
21 truck means food. Hey, that guy walking over there means
22 food.

23 Ravens are extremely smart animals. They're one
24 of the smart birds. They know. They cruise roads for a
25 reason. They have learned this is where I get food. And

1 that has been -- there has been several studies that have
2 shown that that is probably what's causing a lot of the
3 mortality.

4 The same thing happens with birds. And I've
5 brought this up before with testimony on other projects.
6 When it's very well known that when researchers are
7 conducting nest studies, they're leaving their scent right
8 at the nests and all the predators have to do is follow
9 the scent and they get a delicious meal of eggs. And the
10 same thing is happening here with tortoises.

11 You know, interestingly enough, that was exactly
12 what the applicant's plan was for these quarantine pens,
13 was to just drop the gait and let them out. And I don't
14 see any reason why the same thing wouldn't happen as what
15 happened at the head starting program.

16 MR. OTAHAL: Mr. Cashen, are you aware that
17 whenever handling tortoises that the people need the wear
18 gloves and that a new pair of gloves are used each time,
19 so the whole scent issue seems quite moot, though I would
20 agree with you that some predators do learn to follow
21 researchers. I know from nesting experiences that that is
22 an issue. But the scent issue is probably not overly
23 relevant.

24 MR. RITCHIE: No further cross-examination
25 questions.

1 HEARING OFFICER KRAMER: Thank you.

2 Ashleigh Blackford I note that you sent a little
3 note in the chat window to the effect that the condition
4 is within 12 hours of release all Desert Tortoise must be
5 rehydrated. Did you want to amplify that at all. I
6 wanted to at least get it into the transcript because of
7 chat room is not going to be a part of the record.

8 She doesn't show as muted.

9 MS. BLACKFORD: Sorry, I mistakenly hit a button
10 that I lost you on my phone for a second, but I heard what
11 you were saying leading up to that, but yes that was in
12 relation to the discussion about Mr. Cashen said he was
13 confused about the length of time. And I think that it
14 was within 12 hours of the release the rehydration must
15 occur. Not that it would occur for 12 hours. So that was
16 supposed to be clarifying that.

17 HEARING OFFICER KRAMER: Okay, thank you.

18 I think that concludes Mr. Cashen's testimony
19 then.

20 MS. CUNNINGHAM: This is Laura Cunningham, I have
21 a question, from Basin and Range Watch.

22 HEARING OFFICER KRAMER: Go ahead, Laura.

23 CROSS-EXAMINATION

24 BY MS. CUNNINGHAM:

25 I've read in the Staff Assessment that coyotes

1 are present. In applicant found coyotes on the Calico
2 project site. I'd like to ask, Mr. Cashen, in your
3 professional opinion as a biologist, would you think that
4 there's a potential for coyotes are the Calico site to
5 predate tortoises?

6 MR. CASHEN: Yes. And one of my concerns is also
7 the proposed -- or what I guess was the proposed short
8 distance translocation area. The linkage area north of
9 the site. I guess I'm still confused if that's being
10 proposed or not.

11 But that would be an area that coyotes are likely
12 to hang out, the base of that is -- that the their
13 preferred habitat in the Mojave Desert. And so I'm
14 concerned that they're just being spoon fed so to speak,
15 if that's what is still going the occur.

16 MR. OTAHAL: And just to clarify your confusion,
17 no animals are being moved into the linkage area at this
18 time, because we have concluded that the population there
19 is high enough that it does not warrant moving anymore
20 animals into that area.

21 And coyotes occurs throughout the Mojave Desert.

22 MS. CUNNINGHAM: And to clarify I've worked on
23 the Hyundai translocation site, which was 14 miles away in
24 the Rand Mountains and we had a big problem with coyote
25 predation there. So I think there could be a problem

1 anywhere in the Mojave Desert with translocation.

2 Thank you.

3 HEARING OFFICER KRAMER: Could it be just as much
4 of a problem if tortoises remained where they are
5 undisturbed?

6 MS. CUNNINGHAM: I think that the problem is when
7 you move a tortoise away from its burrows, and it's home
8 range, they tend to wander around they don't have a burrow.
9 And even if one is big for them it's that the their home
10 rake and they tend to wander above ground more and are
11 confused.

12 And so are much more likely to be predated by
13 coyotes. That has been my personal experience working as
14 a tortoise biologist.

15 HEARING OFFICER KRAMER: Okay, thank you.

16 Do any of the other intervenors wish to present a
17 witness this evening in.

18 MR. CASHEN: Mr. Kramer, I would like to offer
19 one additional thought, if you'd allow.

20 HEARING OFFICER KRAMER: Go ahead.

21 MR. CASHEN: One thing that is stricken me about
22 this is that California has a long reputation as being a
23 leader in the environmental movement and being a leader
24 when it comes to protecting our environment, and that is
25 one of the things that people in other states have an

1 image about California, is the clean beaches, the clean
2 water and the mountains.

3 And they're also at one point used to be a land
4 ethic where people had a certain obligation, a certain
5 sense of we should be doing this not because we have to,
6 but because we want to and we want to do the right thing.
7 And I encourage you -- this project does not have to
8 happen this way. This project does not have to result in
9 eliminating prime Desert Tortoise habitat, and eliminating
10 this ecosystem.

11 And I encourage you to think about reverting back
12 to this land ethic and what was made California a leader
13 in environmental protection.

14 HEARING OFFICER KRAMER: So translate for us,
15 what does that mean for this project?

16 MR. CASHEN: It means that this project should
17 not be constructed where it's being proposed.

18 HEARING OFFICER KRAMER: So one of the
19 proposals -- now the new proposal is that some of
20 the -- or the better quality habitat would be mitigated at
21 a 5 to 1 ratio, or 4 to 1, if you count the actual land
22 purchase.

23 Are you saying then that whatever value there is
24 in setting aside habitat and improving it, is not offset
25 in your value system by the harm that may come to the

1 tortoises who are currently on the site?

2 MR. CASHEN: Yes. And I would say it's not even
3 eye value system. As a scientist, you know, I strive to
4 be objective. And strive to try and separate the
5 emotional from the scientific. And it is my testimony
6 that from a scientific standpoint, what is being lost
7 cannot be mitigated, whether it's 3 to 1, 5 to 1, 20 to 1.

8 HEARING OFFICER KRAMER: And why is it that you
9 don't find much value in the creation of mitigation or
10 habitat compensation lands?

11 MR. CASHEN: What we have here is something
12 pretty special. We have a pretty high density -- or
13 relatively high density of Desert Tortoises. We have a
14 relatively pristine site. We have Bighorn Sheep. We have
15 Mojave Fringe-toed list lizards. We have a plant that
16 only occurs around the Pisgah crater.

17 All these things are occurring together. You
18 could look up and you could see a Golden Eagle. You could
19 look across, you could see a bighorn sheep. You could
20 look down, you could see a Desert Tortoise. That's pretty
21 incredible.

22 Those species are interacting. They're part of
23 an intact ecosystem. That cannot necessarily be
24 mitigated. I'm not saying that doesn't occur in other
25 parts of the desert, But the Conditions of Certification

1 do not ensure replication of what is being lost there.
2 Now on top of that, to throe in some of the answers to the
3 questions that the Commission asked of us, this is a
4 unique spot in that it's at the cross roads of the western
5 Mojave the eastern Mojave and the northern Colorado
6 recovery unit. It's an essential linkage corridor. It's
7 all these other things that just cannot be mitigated.

8 HEARING OFFICER KRAMER: Okay, thank you. Did we
9 have any other witnesses from any of the other parties?
10 I'll ask one more time.

11 Seeing that not to be the case, let's talk about
12 the committee questions for a minute. One thought is that
13 we -- we realize we didn't give you a lot of time to
14 prepare answers to this and since we are going to have
15 another get together, one suggestion is that the parties
16 could offer their thoughts in writing, prior to the next
17 get together and then we could talk about, you know, sort
18 of have a roundtable discussion of that. But we would
19 have much of the initial thoughts would be all right
20 circulated and shared.

21 The purpose of this is that, you know, because
22 the tortoise issue keeps coming up, the commit sea trying
23 the get a better handle on a perspective really is the
24 word I think. You know, how many tortoises do we have
25 here. We've got information with that, but we're a little

1 bit vague about what's out there in the rest of the
2 tortoise world.

3 The last question is you know, I think Mr. Cashen
4 started to hit on that, the relative value of this site
5 compared to other tortoise habitat. Does it makes sense
6 to all of you parties to attempt to at least initially
7 address these questions in writing prior to the next
8 event, and then of course talk about it a little bit more
9 in a dialogue at that time.

10 MR. BASOFIN: Mr. Kramer Josh Basofin with
11 Defenders of Wildlife. Before I answer that question, I
12 guess I'd like to ask a foundational question about if
13 we're going to table part of our discussion about either
14 translocation or even more broadly biological resources,
15 to some time next week, I'm wondering what then -- how
16 that then affects our briefing schedule.

17 And I ask because I'm happy to answer the
18 questions that the Committee has given, but I'm also
19 cognizant of the narrow timeframe for briefing, and I'd
20 like to plan my time accordingly, I guess.

21 PRESIDING MEMBER EGGERT: Maybe I'll jump in
22 here. I think obviously these are questions of interest
23 to the Committee. And I think Paul properly characterized
24 them to provide perspective. They are optional to the
25 extent that the parties have thoughts that they want to

1 provide on these questions. Some of them are you know
2 attempting to get at aspects of fact and some of them are
3 very specifically opinion, but I think all of them are
4 relevant to the fact that the Committee takes this issue
5 very seriously, is very interested in trying to understand
6 both the specifics of the impacts of both the project as
7 proposed and the mitigation as proposed, as well as sort
8 of the broader aspect of this specifics species and how
9 this particular site relates to that.

10 So I guess I would turn it back to you just to
11 say, you know, if you think it's going to be useful to our
12 decision for you to take the time to provide answers on
13 any of these questions, at your choosing, then you can
14 make that determination.

15 HEARING OFFICER KRAMER: I think it's also fair
16 to say though that the luxury of having the briefs do
17 after the final hearing has probably left the building.
18 That's mixing metaphors but that's just one of my hobbies.

19 (Laughter.)

20 HEARING OFFICER KRAMER: So, I think best we
21 could do on the briefs is probably something like Monday,
22 and we haven't decided yet on the hearing, whether that
23 would be Monday or Wednesday, yet. But maybe we should
24 discuss that now.

25 MR. BASOFIN: So I guess my question then is, and

1 thank you for the answer, Commissioner Eggert -- I guess
2 my question then is for efficiency sake, would the
3 committee like us to perhaps append these answers to these
4 questions to our briefs or even incorporate them into our
5 briefs, if that -- does that make sense sort of
6 administratively?

7 HEARING OFFICER KRAMER: Some of it may
8 technically be in the factual information is probably
9 testimony, so it probably -- it would be, I think, better
10 to have that in the form of a declaration, but that could
11 be attached to your briefs. I don't think -- the delivery
12 method isn't that critical.

13 The argument part could be in your briefs, but it
14 might be more convenient for everyone if you at least
15 separately gather it in your -- you know, so it's all in
16 one area and we don't have to try to find it throughout
17 the brief.

18 Or it could also just be, in effect, you know, a
19 piece of paper that we will recognize as argument, to the
20 extent it is argument and factual to the extent it's
21 providing us factual evidence.

22 MR. CASHEN: I'd like to make a recommendation in
23 that regard. And that is, part of the scientific process
24 is substantiating your conclusions or your theories with
25 literature, and citations.

1 And one of the things that has disgusted me about
2 this process is that a lot of material has been presented
3 that has absolutely no references, no citations, and
4 citations that are provided actually when you read the
5 document, don't support the conclusion that was made

6 And so I would recommend that if you would like
7 an answer to these questions, that any answers cite the
8 material from which it was obtained. And that way if
9 there's any confusion about whether information is right
10 or wrong or why there's a discrepancy between two parties,
11 the Commission has the luxury of going to the source.

12 HEARING OFFICER KRAMER: While it's always
13 helpful to have the source, I think you're seeing the
14 legal administrative world crashing against the world of
15 science. And, you know, we format our documents
16 differently. We try not to use as many foot notes as
17 scientists do. So I'm not sure we're going to get to the
18 place that you would really prefer. But of course, we
19 prefer that people point -- if there is a source, we would
20 like to know about it, but some things are just opinion,
21 and there really is no source.

22 PRESIDING MEMBER EGGERT: Then I guess I would,
23 as a former academic, I would say to the extent that there
24 are references that support the facts or the opinion that
25 does strengthen them certainly in my mind.

1 And again to the extent that that's a
2 possibility, it would be very useful.

3 HEARING OFFICER KRAMER: But we want to be
4 careful not to overstate this. I mean, there are a lot
5 more issues than these, but this is information and
6 perspective that, I think, will inform if nothing else,
7 the real policy decision that the Committee and the
8 Commission are going to have make about whether the
9 override. I think it's fairly clear that there's probably
10 going to be a need for some kind of override, if the
11 project is to be approved.

12 And so, you know, it will definitely help inform
13 that decision, which is ultimately it's a policy decision
14 for the Commissioners to make.

15 So with that, that clarification of the Committee
16 questions and how to respond to them, let's talk about
17 Monday versus Wednesday. Wednesday makes it more likely
18 that a final decision would come the first week of October
19 as opposed to the last week of September. I think that's
20 just real, and that's a factor. Monday is still going to
21 be difficult but you know -- I mean, we have all these
22 last minute issues that require some amount of
23 consideration by the parties, and preparation. Nobody has
24 said they've had too much preparation. We understand
25 that.

1 But we do -- you know, there is going to be a lot
2 to sift through in the last week or so. You know, I might
3 be willing to trade my job with somebody for a couple
4 weeks, if somebody wants it.

5 (Laughter.)

6 HEARING OFFICER KRAMER: Okay, there's some
7 problems with that. So thoughts on Monday versus
8 Wednesday?

9 I think I can predict intervenors would prefer
10 more time, the applicant would prefer, because of their
11 deadlines, that we make it at least possible to have the
12 decision by the end of September.

13 MR. RITCHIE: Mr. Kramer, Sierra Club cannot
14 participate Monday. To the extent that that's an issue.

15 HEARING OFFICER KRAMER: By telephone either?

16 MR. RITCHIE: Monday is not on the table for us.

17 HEARING OFFICER KRAMER: For neither of you?

18 Okay. Wednesday, are you available Wednesday
19 afternoon? And probably into the evening.

20 MS. SMITH: Yeah, absolutely. We are doing
21 everything we can, juggling our schedules. And then it
22 will give us the opportunity to respond to all these other
23 documents that have come up in the meantime, today. We
24 are committed to do the best that we can in both by
25 showing up and responding by Wednesday.

1 HEARING OFFICER KRAMER: Any other parties?

2 MS. MILES: I --

3 MS. CUNNINGHAM: Laura Cunningham. Basin and
4 Range Watch is not available.

5 MS. MILES: Why does that always happen when I'm
6 speaking.

7 HEARING OFFICER KRAMER: Okay, hold on. Ms.
8 Cunningham is trying to speak. Go ahead, Ms. Cunningham.

9 MS. CUNNINGHAM: Sorry. Basin and Range Watch is
10 not available Monday. We would be available Wednesday.

11 HEARING OFFICER KRAMER: Okay. Ms. Miles.

12 MS. MILES: I think also having it on Wednesday
13 would give a bit more time for preparation so that we
14 could complete our briefing and really think through what
15 we want to make sure that we present to the Committee on
16 Wednesday. There's quite a bit of information to go
17 through in front of us.

18 HEARING OFFICER KRAMER: Everybody understands
19 that the briefs have to be still probably in by -- well,
20 either prior to the hearing. And then you can, of course,
21 make some final arguments orally at the hearing. But we
22 do not have the opportunity to allow for a week or even a
23 day after the hearings to receive briefs.

24 MS. SMITH: Sierra Club is not fighting you on
25 the legal briefs.

1 MS. FOLEY GANNON: So were you thinking of briefs
2 on Monday or Tuesday if the hearing is going Wednesday
3 then?

4 HEARING OFFICER KRAMER: I would think, yeah.

5 MS. FOLEY GANNON: Or Tuesday. Monday or
6 Tuesday, okay. We understand people are not available on
7 Monday and we understand the importance of having the
8 parties be present. But we have been talking about one of
9 the real deadlines that we can't get around, which is the
10 weather. And if the project is going to be approved and
11 it is going to go forward we will have to relocate, you
12 know, one or two tortoises in October. And so, obviously,
13 getting into the first week of October, it's becoming very
14 -- a real peril for being able to move forward this year.

15 HEARING OFFICER KRAMER: Well, one of the things
16 I suppose we can look at -- I'm talking out of my hat
17 here, is maybe the opportunity for a special Commission
18 meeting. That may buy a few days depending on when we can
19 get the PMPD out. It doesn't necessarily have to be on a
20 Wednesday. But we'd have to look into that.

21 PRESIDING MEMBER EGGERT: We've been scheduling a
22 lot of those lately it seems like. But yeah, again, I
23 just want to return back to my previous comment. I think,
24 you know, the important thing is that this case is
25 properly heard. And I assume --

1 MS. FOLEY GANNON: Absolutely.

2 PRESIDING MEMBER EGGERT: -- you would want a
3 decision. A premature "no" decision is probably not
4 something you would want. So I think, you know, making
5 sure that we have everything in front of us for purposes
6 of, you know, putting forth a sound PMPD, is critical.
7 And I think, you know, our commitment as the Committee --
8 and I can't speak for Commissioner Byron but I assume he
9 would agree.

10 And that is, you know, we're giving, you know,
11 all of our attention to these cases and, you know, putting
12 as much effort and resources that we have available
13 towards moving these forward. But again, making sure that
14 we're doing it judiciously and with providing a proper
15 process and opportunity for comment and input.

16 MS. FOLEY GANNON: And we absolutely appreciate
17 that. I just bring it up again because I know you also
18 don't want to, if you come -- we have been putting all
19 this effort into it to approve it, then to have something
20 that can't work because we missed a deadline, you know,
21 that we could have possibly made.

22 And you have all heard a number of times about
23 the funding considerations that will be influenced by
24 being able to make these schedules. And just because this
25 does have this weather window that we just can't control.

1 That's just the only reason I'm bringing it up.

2 PRESIDING MEMBER EGGERT: Okay. We take that
3 into consideration.

4 HEARING OFFICER KRAMER: Okay, we need to
5 deliberate I guess for just a moment. Were there any more
6 thoughts before we decide?

7 Okay, we'll go off the record for a minute.

8 (Off the record.)

9 HEARING OFFICER KRAMER: The Committee decided,
10 based on the schedules and the other equities, to
11 reconvene. Formally speaking, we will be continuing this
12 hearing until 1 p.m. on Wednesday the 25th to follow the
13 Commission Business Meeting.

14 And it's possible the Commissioners may be in a
15 closed session that might take them a little bit past one
16 o'clock. So I wanted to alert the parties to the
17 possibility that we -- if you are willing to stipulate
18 that we may start the meeting without a Commissioner
19 present. And I can go over some of the mundane things we
20 still have to do with you. And then as soon as the
21 Commissioners are available they'll join us and we'll get
22 into some of the meatier issues. Okay, I'm not hearing
23 anyone object to that, okay. That's that.

24 Ms. Holmes informed me that she wanted to --
25 Ms. Holmes speaking for Mr. Adams informed me that the

1 staff would like to just preview one other biological
2 issue for the parties to think about for the next hearing.

3 MR. ADAMS: There are actually two things now.
4 Mr. O'Brien is back to clarify something so if we could
5 give him a few minutes. And then --

6 MR. LAMB: Mr. Kramer, if I could, I apologize.
7 Just logistically, just so I understand. I thought we
8 were talking about briefs too. Are those just due before
9 the close of business of the hearing? I didn't quite track
10 it.

11 HEARING OFFICER KRAMER: You're right, we didn't.
12 Five p.m. on Monday I think is about the best we can do.
13 With the option -- because I need to start working on
14 those. As I said a few minutes ago, then you can always
15 make additional oral arguments at the close of the hearing
16 on the 25th.

17 MR. LAMB: Okay. And Mr. Kramer, if I may, like
18 you did last time when we left Barstow. If perhaps the
19 Commission could give authority for the staff to hold
20 workshops if it comes up. I mean, I know we're trying to
21 coordinate on a lot of stuff but we obviously would not
22 have the adequate notice required by the rule.

23 HEARING OFFICER KRAMER: Right.

24 MR. LAMB: So if you could authorize that, the
25 Commission could authorize that, that would be helpful.

1 HEARING OFFICER KRAMER: Okay. So the Committee
2 will order that the staff -- we will order the suspension
3 of the ten day notice requirement to the extent necessary
4 to allow staff to set up a workshop at which the parties
5 can discuss whatever issues they need to, try to resolve.
6 With the only stipulation being that at a minimum there
7 needs to be a notice that is posted on the website for the
8 project prior to the start of that workshop.

9 MS. FOLEY GANNON: We were going to suggest
10 Tuesday afternoon as a possible workshop.

11 MS. MILES: I just wondered, what are the topics
12 that you are anticipating?

13 MS. FOLEY GANNON: We know we have the --

14 MR. LAMB: It depends on what we've been through.

15 MS. FOLEY GANNON: We know we have the -- it
16 depends on what we get through finishing up tonight. And
17 we know we have the BNSF issues that we're going to be
18 trying to resolve and I think there is the conditions list
19 that we already have. We have the revised conditions that
20 were proposed by staff in the Supplemental Staff
21 Assessment Erratas, which I don't think we have all of
22 them resolved tonight.

23 MR. LAMB: And in that vein, if it's possible it
24 would be helpful for this intervenor if there was a
25 comprehensive set of current conditions that we could look

1 at. Just the conditions. There's so many different
2 documents now it's hard to go back and forth.

3 HEARING OFFICER KRAMER: That's a pretty big job
4 but the Committee would not be upset to receive a copy of
5 that as well. In Word format, please.

6 MS. FOLEY GANNON: We can give you our version of
7 the conditions if you'd like them. We do have that.

8 (Laughter.)

9 MR. BASOFIN: This is Joshua Basofin. I guess
10 I'd be interested to know if staff is planning on
11 proposing new conditions based on recommendations received
12 from DFG tonight. Perhaps Mr. O'Brien will speak to that.

13 MR. MEYER: Before we get off the workshop issue.
14 If I could act as a clearinghouse for all parties. It
15 looks like Tuesday

16 MS. FOLEY GANNON: Tuesday afternoon would be

17 MR. MEYER: Tuesday afternoon.

18 MS. FOLEY GANNON: Yeah.

19 MR. MEYER: If all the parties tomorrow can send
20 me their feelings on what issues are outstanding that
21 they'd like to have in a workshop we'll see if we can get
22 a short list, I mean a short list, of what really needs to
23 be addressed in that workshop and any constraints on
24 Tuesday. And I will get a notice out.

25 HEARING OFFICER KRAMER: I'd encourage you to

1 publish that list, the short list. But leave the notice
2 broad so if conditional things come up your not
3 constrained by the notice.

4 And I'll add to the Committee's Order that you
5 should both post it to the website, email it to the proof
6 of service list and to the -- send out a notice to the
7 list serve for the project. That's about the most we can
8 do electronically. Anything you put in the US mail
9 wouldn't reach people in time anyway.

10 Mr. Adams, did you cover the other item, the memo
11 here from Mr. O'Brien?

12 MR. ADAMS: The other item is just to put in the
13 record and not wait until next week. There were two
14 issues that the applicant asked for us to consider
15 revisions to the Conditions on that were not included in
16 our Errata number 2 yesterday. Those include -- I wanted
17 to briefly explain staff positions. I understand why
18 those weren't included.

19 The first is the phasing. Where the applicant's
20 request as we understand it is to phase the security
21 payment and perhaps the raven fee, according to this new
22 Phasing 1A, 1B and 2. In looking at that we -- there
23 seemed to be added complexities that we could not entirely
24 resolve, including that the development would require
25 fencing in a way that isolates some of the tortoise

1 habitat. So that instead of 250 acres of impact, because
2 the fencing is enclosing tortoise habitat, we're looking
3 at a bigger number. That was one of the issues with the
4 phasing.

5 The other was what other conditions might be
6 affected by that. We have a number of conditions that
7 require certain things to happen within a certain period
8 of time after the end of construction, should those be
9 phased. It's one of those things that once you start
10 peeling the layers it's hard to --

11 MS. FOLEY GANNON: We were working that onion
12 too. And we would say that would be probably one of the
13 first things we'd like on our short list of things to talk
14 about.

15 MR. ADAMS: Can one of you real quickly describe
16 the areas that we have identified.

17 HEARING OFFICER KRAMER: If you're going to
18 workshop it anyway could we --

19 MR. ADAMS: Sure.

20 HEARING OFFICER KRAMER: Do we need to do it
21 tonight?

22 MR. ADAMS: Sure. The second item -- that's
23 good, thanks.

24 The second item is the dollar amount that is used
25 to calculate the security. At the workshop last week Amy

1 Fesnock, BLM, produced some numbers, some of which at
2 least I think are in the record now, that looked both at
3 the average parcel size in San Bernardino County. The
4 effect of that would be that our current cost estimates
5 are based on a 40 acre parcel. This would bump that up by
6 quite a bit and reduce the needed security.

7 The second part of that was the estimated
8 acquisition cost, which the applicant feels is too high at
9 \$1,000 an acre. Fish and Game has indicated they have
10 some questions with that, with the numbers or have their
11 own input, which we are waiting to get. In addition I
12 think REAT is grappling with those issues. So for that
13 reason we didn't feel taking the, specifically the BLM
14 data alone, was appropriate at this point. In principle
15 we are not opposed to reconsidering those numbers and we
16 have a better, more complete set of data.

17 So I think those were the two things. And then
18 Mr. O'Brien.

19 HEARING OFFICER KRAMER: Mr. O'Brien. You're
20 still sworn.

21 MR. O'BRIEN: I understand that there's a desire
22 for me to clarify, I guess, comments that I made earlier
23 today and so I'm happy to answer questions and provide the
24 clarification.

25 MS. FOLEY GANNON: We had a question. We

1 understood that you said in your earlier statement that
2 you were accepting the -- or the staff's direction was to
3 accept Fish and Game's conclusion about the mitigation
4 numbers. We had also heard from the representative, Ms.
5 Moore from Fish and Game, that she had questions about the
6 adequacy of the analysis that was done by staff. And we
7 were looking for confirmation as to whether you shared
8 Fish and Games' conclusion about the adequacy or
9 inadequacy of the staff's analysis of the impacts
10 associated with the desert tortoise?

11 MR. O'BRIEN: No, I don't share the comment made
12 by the representative from Fish and Game regarding the
13 adequacy of staff's analysis. My comments were directed
14 solely to the issue of mitigation and the fact that the
15 staff was prepared to accept the recommendations of Fish
16 and Game regarding the changes in mitigation proposed,
17 vis-a-vis desert tortoise.

18 MS. FOLEY GANNON: Thank you very much for that
19 clarification.

20 HEARING OFFICER KRAMER: Okay. Then that will
21 close out biology for this evening.

22 MR. LAMB: Mr. Kramer, one other thing. This is
23 Steve Lamb from BNSF. Is it possible to get this hearing
24 transcript expedited so that we could get it by Friday, if
25 we have briefs due Monday?

1 THE REPORTER: It's three days.

2 HEARING OFFICER KRAMER: I think the contract has
3 a rate for one day, doesn't it?

4 THE REPORTER: It does.

5 HEARING OFFICER KRAMER: But are you saying that
6 is it physically impossible to produce it?

7 THE REPORTER: You need to take that up with the
8 office, I can't speak for them.

9 HEARING OFFICER KRAMER: Okay.

10 THE REPORTER: You're talking here -- we've got
11 seven tapes, all right.

12 HEARING OFFICER KRAMER: All right.

13 THE REPORTER: You're talking about turning it
14 around in a 24 hour period.

15 HEARING OFFICER KRAMER: In a time where I'm
16 having trouble getting authorization to get our printer
17 cleaned.

18 PRESIDING MEMBER EGGERT: We will make an effort
19 to do so, although I will echo Hearing Officer Kramer's
20 comments that, you know, it probably partially depends on
21 the price tag. And I understand it's definitely useful
22 for the briefs. But of course, you did have the great
23 benefit of being here today.

24 MR. LAMB: But Commissioner, I'm only thinking of
25 you and your time.

1 PRESIDING MEMBER EGGERT: Thank you.

2 MR. LAMB: How much more efficient I could
3 structure this argument if I had everything laid out.

4 PRESIDING MEMBER EGGERT: And I very much
5 appreciate that consideration.

6 I do also want to say, I think it is probably
7 appropriate. I think Hearing Officer Kramer characterized
8 it this way but just to reiterate. That Wednesday is
9 probably best considered a continuation of this hearing.
10 So, you know, in terms of the usefulness of having the
11 transcript, which I understand is useful for the briefs.
12 Well, I'll just leave it at that. But yes, we'll make an
13 effort to see what we can do. We'll get the price tag and
14 see if it's even a possibility.

15 MS. FOLEY GANNON: I don't think so.

16 HEARING OFFICER KRAMER: Okay, let's move on to

17 MS. FOLEY GANNON: Cultural resources.

18 HEARING OFFICER KRAMER: -- cultural.

19 MS. FOLEY GANNON: Cultural resources. I think
20 that's the last one for tonight probably, right?

21 MS. HOLMES: It's only cultural, I think a number
22 of us will leave.

23 HEARING OFFICER KRAMER: So you'll be heading
24 out?

25 MS. HOLMES: Yes.

1 HEARING OFFICER KRAMER: Okay, cultural.
2 Applicant's witness?

3 MS. FOLEY GANNON: Will be -- we've been
4 discussing a possible way to shorten this discussion and
5 we may start off with -- the staff may start off the
6 discussion and we're fine with that.

7 MR. BABULA: Yeah, we would like to go first.
8 There's been some discussion with BLM that has changed
9 some of the issues so I think if we go first it will frame
10 things better and it might make this go faster.

11 HEARING OFFICER KRAMER: Mr. Court Reporter, you
12 know Mr. Babula?

13 THE REPORTER: I'm okay.

14 HEARING OFFICER KRAMER: Okay. Would it even be
15 faster if we had a panel of all the witnesses? Is that
16 going too far?

17 MS. FOLEY GANNON: No, I think that's fine. We
18 have the BLM representatives here as well. And we have
19 Rachel Nixon.

20 HEARING OFFICER KRAMER: Okay, come on down.

21 MR. BABULA: They'll need to be sworn, I think.

22 HEARING OFFICER KRAMER: Okay. So everybody who
23 hasn't been sworn in yet if you could have a seat and
24 raise your right hand.

25 (The witnesses, after being duly sworn,

1 were examined and testified as follows.)

2 PRESIDING MEMBER EGGERT: And Mr. Kramer, I might
3 just say to our friends from BLM, thank you so much for
4 your patience and being here with us so late into the
5 evening.

6 HEARING OFFICER KRAMER: Steve or Caryn, could
7 you prop the doors there to the atrium, one of them open.
8 And I think there's a door stopper out there somewhere.
9 Okay. That'll hopefully help with the ventilation.

10 Okay, let's go around the table and have all the
11 again, the witnesses introduce themselves and spell their
12 names for our court reporter. Starting with the gentleman
13 next to Ms. Bellows.

14 MR. HOLLINS: My name is Jeremy Hollins,
15 J-e-r-e-m-y, H-o-l-l-i-n-s, and I am a senior
16 architectural historian with URS.

17 MS. NIXON: My name is Rachael Nixon,
18 R-a-c-h-a-e-l, N-i-x-o-n, and I am the senior
19 archaeologist with URS, for the applicant.

20 HAVENS: Amy Havens, A-m-y H-a-v-e-n-s. I'm with
21 URS.

22 DR. HUNTER: Dr. Charlotte Hunter.

23 MR. SHEARER: Jim Shearer, archaeologist, Bureau
24 of Land Management Barstow, and I'm not sworn.

25 THE REPORTER: Spell your last name, please.

1 MR. SHEARER: S-h-e-a-r-e-r.

2 HEARING OFFICER KRAMER: Okay, thank you. Are
3 you ready?

4 THE REPORTER: Yes.

5 DR. LANGE: I am Dr. Frederick Lange, L-a-n-g-e,
6 F-r-e-d-e-r-i-c-k. I'm a third party reviewer for
7 cultural resources for the Bureau of Land Management and I
8 also am not sworn.

9 MR. MCGUIRT: I'm Mike McGuirt, M-c-G-u-i-r-t.
10 I'm a cultural resources specialist on the staff of the
11 Energy Commission.

12 MS. FOREST: I'm Kathleen Forrest,
13 K-a-t-h-l-e-e-n, F-o-r-r-e-s-t, and I'm a cultural
14 resources analyst with the Commission.

15 HEARING OFFICER KRAMER: Okay. Mr. Babula, you
16 want to go ahead?

17 MR. BABULA: I think CURE might have a person too
18 on the phone.

19 HEARING OFFICER KRAMER: Is that correct?

20 MR. WHITLEY: Yes. This is David Whitley. I
21 have not been sworn in yet.

22 HEARING OFFICER KRAMER: Okay, raise your right
23 hand.

24 Whereupon,

25 DAVID WHITLEY

1 Was called as a witness herein, and after being duly
2 sworn, testified as follows:

3 HEARING OFFICER KRAMER: Please spell your name
4 for our court reporter.

5 MR. WHITLEY: David, D-a-v-i-d, Whitley,
6 W-h-i-t-l-e-y.

7 HEARING OFFICER KRAMER: Okay, Mr. Babula.

8 MR. BABULA: Okay. What I'd like to do first is
9 just a quick couple of questions for Mr. McGuirt here
10 because one of the authors of the testimony wasn't able to
11 be here, she had a pre-planned trip so I just want to do a
12 little housekeeping here.

13 DIRECT EXAMINATION

14 BY MR. BABULA:

15 Mr. McGuirt, were you involved with the
16 preparation of the cultural resource sections of the staff
17 assessment?

18 MR. MCGUIRT: Yes I was.

19 MR. BABULA: Okay. And are there any corrections
20 to that testimony you would like to summarize for us
21 today?

22 MR. MCGUIRT: Yes. We had clerical errors
23 basically in the Supplemental Staff Assessment on pages
24 C.2-19 through C.2-22. These are in relation to the
25 consideration of the National Old Trails Road Historic

1 District as an archaeological resource and the potential
2 early 20th Century gravel mining landscape also as an
3 archaeological resource.

4 The testimony is in error and would indicate that
5 we had agreed with the conclusions of the BLM that neither
6 of these districts is a consideration. We do believe
7 these districts are worthy of consideration and we would
8 like to change that error.

9 MR. BABULA: Okay, thank you. Do we -- let me
10 phrase it this way.

11 Has BLM just recently decided that a programmatic
12 agreement would be appropriate for this case?

13 MR. McGUIRT: Yes, I believe they were encouraged
14 to do this by the State Office of Historic Preservation.

15 MR. BABULA: Given that, do we have or do you
16 have a new concept you would like to discuss or testify to
17 today regarding the conditions of certification that we
18 have issued?

19 MR. McGUIRT: Yes, we do.

20 HEARING OFFICER KRAMER: Please go ahead and
21 summarize that.

22 (The lights went out in the hearing room.)

23 MR. McGUIRT: In the dark.

24 HEARING OFFICER KRAMER: It'll come back.

25 MR. McGUIRT: We hope that we have made

1 productive use today of our time while waiting to testify.
2 We have a proposal that we've done a preliminary vetting
3 with the BLM and the applicant we would like to discuss in
4 relations to the conditions of certification that we have.

5 The Energy Commission's conditions of
6 certification, one major point of contention is our CUL-4,
7 which asked for a program to evaluate the historical
8 significance of a lot of the archaeological resources in
9 the project area. The purpose of that, ultimately it's
10 one step of several steps that would lead us to a place to
11 where we would be able to demonstrate under CEQA that we
12 had fully taken into account whether or not there were
13 historical resources in the project area and would be able
14 to refine our mitigation to recover the information values
15 for which these resources were significant.

16 That is not the only avenue that one could take
17 under CEQA or under the federal regs. What we want to be
18 able to do is to demonstrate to all and to satisfy our
19 requirements under CEQA that we have either preserved the
20 values for which those resources are eligible or we have
21 been able to recover them. And the proposal that we have
22 falls into the category of being able to preserve the
23 values for which these resources would be eligible.

24 And the proposal is this. The BLM has set aside
25 several large areas adjacent to and near the project area

1 as it is now. We would like to propose using the Section
2 106 programmatic agreement as the vehicle to implement
3 this. A proposal that a study be done by the applicant to
4 compare the archaeological resources that are in the
5 avoidance areas now, both in terms of the archaeological
6 materials that are on those resources and the land form
7 context in which they occur. To compare those new
8 avoidance areas to the general population of the
9 archaeological sites and the land forms that are in the
10 project area at large.

11 The purpose of the study would be to demonstrate
12 that the archaeological resources in the avoidance area
13 are a representative sample of the population of the
14 resources in the project area at large. And if that is
15 found to be the case, the BLM in consultation with
16 ourselves as well as other parties, would try to set these
17 avoidance areas into something -- an ACEC or something
18 equivalent where the BLM's multi-use policy wouldn't
19 necessarily apply. So that we could say that they were
20 going to be preserved basically in perpetuity and we would
21 have the preservation of these values for which these
22 resources were significant.

23 The study would take into consideration also in
24 the general population in the project area the land form
25 context that these deposits occurred in and the materials

1 themselves to make sure and to be able to demonstrate for
2 the record that we have -- we're comparing apples to
3 apples. That we have representatives in the avoidance
4 areas that are representative of the population at large.
5 And if that were the case, if the study were to come back
6 and able to demonstrate that and it would be subject to
7 the review and approval of at least the BLM and the Energy
8 Commission and also subject to comment by the public at
9 large and other interested parties, then that would make
10 the need to do the evaluation program and any subsequent
11 mitigation moot. Because we could demonstrate that we had
12 set aside these sites in perpetuity.

13 In the PA we would set up a Plan B which would
14 demonstrate that we're giving these resources their full
15 due. And that Plan B would be that if, on the other hand,
16 the study comes back and says that the resources that are
17 set aside in these avoidance areas are not representative
18 of the resources in the population at large, that then we
19 would move into the evaluation phase that we had
20 envisioned under CUL-4. So that we're covered either way
21 in terms of making sure we're going to try to preserve
22 those values first, and failing that we will go to an
23 attempt to recover those values if that fails.

24 The feeling -- and please, BLM, correct me if I'm
25 wrong. My understanding is that BLM feels very certain in

1 the belief that the results of that study are going to be
2 that the sites that they have set aside as avoidance areas
3 already are representative of the population at large.

4 Energy Commission staff has looked at the data at
5 hand. And while we aren't prepared to say that we are
6 quite as certain as they are we think there is a high
7 likelihood that that will be the outcome and that that
8 would be a reasonable way to proceed. So that's our basic
9 proposal.

10 The rider to that proposal, if you will, is that
11 if the study comes back and says, yes, the archaeological
12 sites in the avoidance areas are, in fact, representative
13 of those in the general population, almost but not quite,
14 there are some particular land forms that aren't quite
15 represented now in the avoidance areas or there are some
16 archaeological site types that aren't quite yet
17 represented in those avoidance areas. The applicant would
18 have the opportunity to choose further land to put into an
19 avoidance area, a set-aside area, to include with the
20 others to round out that sample to make sure that we did,
21 in fact, have the representative sample. So I think
22 that's basically the proposal.

23 The PA -- what triggered -- I think we ought to
24 say too, what has triggered the PA and the development of
25 it under Section 106 is the State Office of Historic

1 Preservation's belief that it looks like there will be an
2 adverse effect to US Route 66, the historic roadway. And
3 so because there looks like there will be an adverse
4 effect to that, that triggers the development of this PA,
5 the purpose of which is to resolve those negative effects
6 to Route 66. And so because we are going to develop this
7 document anyway it sort of opens up and gives us an
8 instrument, a vehicle to work on these conditions and to
9 enter into this proposal.

10 What we would do with our conditions. That
11 leaves us the question, and we have this on several other
12 siting cases, is we are going to have a programmatic
13 agreement under Section 106 and we have published
14 conditions of certification for our license. How do we
15 deal with that? And our proposal to deal with that is
16 essentially to put poison pills in our own conditions of
17 certification.

18 So for instance in CUL-4, we would put language
19 in there that would say basically that the applicant will
20 conduct the study that I've just described to you. And if
21 the results of that study demonstrate that we have a
22 representative sample in the avoidance area or they are to
23 amend their avoidance area so that there would be a
24 representative sample, then the applicant would not need
25 to implement this particular condition.

1 And we would deal with the other conditions. We
2 could either do a stand-alone condition that generally
3 says that to the extent that our conditions of
4 certification are incorporated into this programmatic
5 agreement under Section 106 then our conditions would die.
6 And we would deal with that in that way. So we wouldn't
7 have to go back and try and like strike all of our
8 conditions and have nothing except say, what we did at
9 Imperial, which was to say, you know, see the PA, do
10 what's in the PA. And this way we would, you know,
11 preserve our conditions and at the same time give the
12 applicant a way to navigate through the choice between our
13 conditions and the stipulations that end up in the
14 programmatic agreement. And now I'm sure I've confused
15 everybody.

16 PRESIDING MEMBER EGGERT: Actually slightly. I
17 was wondering maybe if you could provide just an example,
18 perhaps, of say -- provide an example of some sort that
19 would cause you to go with something different than what's
20 proposed in the conditions.

21 MR. MCGUIRT: Okay, let me go back to CUL-4 and
22 try that. Our condition of certification CUL-4 asks the
23 applicant to develop individual protocols for individual
24 types of archaeological sites, to evaluate their
25 historical significance. And it lays out a whole

1 procedure that they are going to go through to do that.
2 That would typically involve having the applicant, after
3 having done background research, go out in the field and
4 do excavations and do full-on archaeological field work
5 and then write those up into reports and make
6 recommendations about whether or not these resources are
7 eligible for the California Register in our case, the
8 California Register of Historical Resources.

9 The purpose of that ultimately would be to refine
10 our understanding of which of the resources are historical
11 resources and need to be dealt with under CEQA so that we
12 could then devise subsequently mitigation for those
13 resources. The purpose of which would be to recover the
14 information or a sample of the information for which those
15 resources were significant. That's the purpose of the
16 mitigation on an archaeological site, basically. Not
17 always but basically.

18 By doing the study and demonstrating that the
19 archaeological resources that they have in their avoidance
20 areas are the avoidance areas as they amend it, are a
21 representative of the population of archaeological
22 resources in the project area as a whole, rather than
23 going to a situation where we're trying to recover
24 information for which the sites are significant we're
25 going to preserve the information for which the sites are

1 significant. So it's two different ways of getting at the
2 same thing, which is mitigating the effects of the project
3 on these resources.

4 HEARING OFFICER KRAMER: That is a lot to chew
5 on, I'll say that. Especially when somebody is, you know,
6 trying to sort of parse your specialty's terminology.

7 Do I understand then -- this is probably really
8 oversimplified. But are you saying that by preserving
9 examples of various resources that are similar to
10 resources that will be in the unpreserved area you are
11 mitigating whatever might happen to the resource in the
12 unpreserved area?

13 MR. MCGUIRT: That's not oversimplified and
14 that's correct. Because the other option would be for us
15 -- and what typically happens in these situations is that
16 we would go out and excavate and recover information, a
17 sample, a small sample of the information from these
18 sites, and then they would be destroyed, so that you would
19 never have access to them again. And whatever information
20 you had gleaned in your initial investigation was all you
21 were ever going to get. In the case that we're proposing
22 they would be there in perpetuity, theoretically available
23 for research. People could go back to the well multiple
24 times.

25 HEARING OFFICER KRAMER: But even in finding

1 these sites in the preserved area you are affecting them
2 to some degree, aren't you, by digging them up?

3 MR. MCGUIRT: We are not going to dig. The study
4 will be done on the basis of the information that is
5 already in hand that is the result of a lot of surface
6 exploration and surface documentation, and a consideration
7 of the land forms on which these deposits have been found.
8 Which will give us some indication of what the likelihood
9 is that there is depth to these deposits as opposed to
10 everything being on the surface. So the combination of
11 the land form data and the existing information in hand.
12 The surface data of the archaeological site should be
13 sufficient to affect the study.

14 HEARING OFFICER KRAMER: Now this project is the
15 same applicant as Imperial Valley. I hesitate to try to
16 compare the two but I think it may be educational, because
17 the two are making their way through the system at the
18 same time. Could you describe in relatively brief,
19 general terms the differences or the similarities in the
20 nature of the artifacts that you are expecting to find on
21 the two different sites, Imperial and Calico.

22 MR. BABULA: Before you answer I just want to
23 establish. Are you -- did you work on the Imperial case?

24 MR. MCGUIRT: Yeah, I was the primary analyst for
25 Imperial for the Energy Commission.

1 HEARING OFFICER KRAMER: Because it might help
2 educate me as I'm going through the rest of the process I
3 think it would be useful for me to know. You know, are we
4 talking about the same types of artifacts or very
5 different things?

6 MR. MCGUIRT: In very gross terms, and I mean
7 very gross terms, the archaeology is analogous. The main
8 reason for the difference in the way in handling these
9 siting cases lies more in the nuances of the schedules
10 that these projects have been on.

11 Typically, you know, in a perfect world, the way
12 that we would like to see this done, and in fact the way
13 that we do this on our typical natural gas-fired plants is
14 we go out and we do a survey and identify the resources.
15 We go back and have the applicants dig and evaluate the
16 significance of them. Assess the effects that the project
17 will have on them and the devised mitigation. And all
18 that is done before we get to a decision.

19 Because of the sheer volume of the number of
20 resources on both Imperial, which easily has more
21 archaeological resources than probably almost all other
22 Energy Commission cases combined in the last 30 years.
23 Due to its sheer number we have never dealt with something
24 of this size before and the regulatory time frame for our
25 licensing process didn't change. So to, for instance to go

1 out and to do an evaluation phase job on the 300-plus
2 sites that we had at Imperial, you're probably looking
3 from start to finish at 18 to 24 months just to do the
4 evaluation phase. And that clearly doesn't fit into our
5 schedule.

6 So we have been working very hard to come up with
7 ways to streamline the process, and like I said, just due
8 to the nuances of the two cases, that accounts more for
9 the differences in the way you're seeing to treat them
10 than anything else.

11 To more directly answer your question. At
12 imperial you have a very interesting situation where a
13 significant portion of the project area laps over what is
14 the former shoreline of ancient Lake Cahuilla. And so
15 there was quite a lot of prehistoric use of that shoreline
16 because of the resources that were in the lake and around
17 the lake at that time. And as you move from east to west
18 in the Imperial Valley Project area and you get further
19 from the lake the frequency of the archaeological deposits
20 drops off as you head in towards the mountains and you get
21 a little bit different types of sites.

22 In the case of Calico the distribution of the
23 archaeological sites and the types of sites are a lot more
24 homogeneous because it's on -- there are some distinctions
25 in the type of land forms that are there but if you're

1 standing out on the project area you have a relatively
2 shallow-sloped surface that extends for quite some ways
3 along a -- a former intermittent stream channel, an
4 ephemeral stream channel. So the deposits are more
5 similar and you don't get quite the variation that you do
6 -- or the number that you do at Imperial.

7 HEARING OFFICER KRAMER: So Calico is less dense?

8 MR. MCGUIRT: It's less dense.

9 HEARING OFFICER KRAMER: Are you talking about
10 half as dense in order of magnitude?

11 MR. MCGUIRT: I don't have a figure for you in
12 terms of how many sites per acre. I can tell you that the
13 gross numbers of sites -- what is Imperial, 6,000 acres?
14 Is that about right, 6,000 acres? And Calico is what?

15 HEARING OFFICER KRAMER: About 6,000 acres.

16 MR. MCGUIRT: Okay. So good, we're roughly the
17 same size, that makes for a good comparison.

18 At Imperial we have about roughly 325
19 archaeological sites and in Calico we're looking at about
20 119.

21 HEARING OFFICER KRAMER: Okay, thank you, that's
22 what I need to know.

23 Continue, Mr. Babula.

24 MR. BABULA: Okay. Are there certain advantages
25 to the PA process that we could take advantage of going

1 forward.

2 MR. McGUIRT: I think the primary advantage,
3 particularly given the schedule that we're on -- I mean,
4 as everyone knows we're getting close to a decision here
5 and the BLM has published their FEIS. We'll be looking at
6 comments and coming to the ROD pretty quickly. So our
7 administrative records for both of these decisions are
8 beginning to come to a close.

9 And we're fortunate in a sense that the State
10 Office of Historic Preservation has decided that this PA
11 is going to be necessary. There are PAs in existence that
12 have been developed for other solar projects that I think
13 are going to make quick work of developing the project for
14 Calico. And it provides us as I said earlier, this
15 vehicle that allows us to reach compromises here in a way
16 that will be much easier than I think it would have been
17 otherwise.

18 One of the things that both the BLM and Energy
19 Commission staffs have been working on very hard for the
20 last two years for a number of reasons, not the least of
21 which is to make this less painful and burdensome for the
22 applicant, is we have tried to avoid the situation where
23 the Energy Commission came out with its decision and a set
24 of, you know, conditions of certification, and the BLM
25 came out with an entirely separate mitigation package and

1 programmatic agreement. Which is either going to leave
2 the applicant in the position of having to do, you know,
3 double mitigation or trying to effect some sort or
4 post-decision concordance.

5 And the preferred option and why we did what we
6 did at Imperial, which was deferred to the PA, us having
7 to help negotiate it, was that it provides us, the BLM and
8 the applicant with one mitigation plan that everybody has
9 consulted on, agreed to and can implement. And that's
10 much easier and streamlines the post-decision process of
11 getting through compliance and construction.

12 PRESIDING MEMBER EGGERT: So just a quick
13 follow-on to that. In the Imperial there were some
14 conditions put forth in the BLM, the FEIS as I understand
15 it. Are those similar in terms of the structure that
16 you're contemplating here in that they can be overridden
17 by the PA?

18 MR. MCGUIRT: They're a little bit different.
19 The conditions, they had 11 conditions in the FEIS, I
20 believe, for Imperial. And there's a qualifying clause in
21 there that said something to the effect of, these
22 conditions will prevail unless otherwise negotiated in the
23 PA process.

24 And the Section 106 process is supposed to be a
25 very open-ended process where everybody contributes ideas

1 and the group reaches, you know, to the best they can a
2 consensus about what is going to occur. The lead federal
3 agency is the ultimate arbiter of that but it's supposed
4 to be an open process.

5 I think the BLM probably, and this is my
6 speculation and opinion, probably put those conditions in
7 there and those measures in their FEIS to try to give the
8 public just a little bit better sense of what they thought
9 the outcome of the PA process was going to be without
10 committing to, that's exactly what the outcome was going
11 to be.

12 And so in our case here, you know, because of the
13 particular history of what our publication schedule was
14 and what theirs was, you know. And the fact that there
15 was no programmatic agreement that was in sight when we
16 published, we went ahead and came up with normal
17 conditions of certification. And now we're trying to
18 figure out how to make it jibe with the PA that has come
19 up in the last week.

20 I believe that BLM got notified something like
21 last, what, Friday, that the OHP thought that a PA would
22 be a good idea, so this is a very recent development.

23 HEARING OFFICER KRAMER: How long is it going to
24 take to produce this PA?

25 MR. McGUIRT: I don't want to speak for you,

1 Charlotte.

2 DR. HUNTER: No, please don't.

3 (Laughter.)

4 MR. McGUIRT: Okay, good.

5 DR. HUNTER: I would like to respond. I'd like
6 to ask a question that was asked earlier by the learned
7 Hearing Officer, Paul Kramer, and I quote. "What authority
8 does the CEC have to determine what the federal agency
9 does on federal lands? That didn't work so well the last
10 time."

11 Given that as our basic statement that what the
12 federal government does on federally managed lands is our
13 responsibility, we take into consideration the CEC's
14 concerns. And we approached the SHPO to discuss the CEC's
15 concerns. Were it not for the CEC's concerns we would not
16 probably have gone in this direction. We had every
17 understanding that our findings of not eligible for the
18 sites in the project area was going to be accepted by the
19 SHPO.

20 There were two issues; one was Route 66 and one
21 was the testing of not eligible sites. We realized that
22 we want to work with the CEC, we want to do whatever we
23 can to come to a bottom line of agreement. And we have
24 after revisiting the issue of the integrity of Route 66 we
25 have agreed with the SHPO that we do need to revisit that

1 and that we will write a PA that will address that issue.

2 The difference between the Imperial project and
3 the Calico project is that all of the sites that were
4 eligible to the National Register in the Calico project
5 have been avoided. The sites that remain in the project
6 area, in the area of potential effects, we have found to
7 be not eligible. And we have a strong belief that the
8 SHPO will concur with that.

9 Now in wanting to take into consideration the
10 CEC's concerns we have discussed that there are sites
11 outside of the area of potential effect which have been
12 found to be eligible to the National Register. Now, if
13 anything should happen that those sites were to be
14 impacted, because they are eligible sites they would
15 require testing. It's the ineligible sites that do not
16 require testing.

17 And while I agree that the plan that the CEC has
18 discussed with the BLM is a good plan, I do limit it to
19 outside of the PA. The PA must be written and approved
20 and signed prior to our ROD. I have strong concern that
21 if we would have to negotiate a plan for testing or even
22 for dealing with the sites outside of the APE that we will
23 not be able to make our deadlines.

24 While I'm totally willing to consider if we can
25 consider these sites in an area of critical environmental

1 concern, an ACEC, the bottom line is the protection that
2 is afforded eligible sites is that if there is an impact
3 to them they must be tested and/or complete data recovery
4 if they are going to be impacted. I think the sites that
5 have been discussed are protected by that finding.

6 I have no objection at all to an ACEC designation
7 but the real protection for those sites is our having
8 found them eligible. We still could look at a comparison
9 of the ineligible site types to the eligible site types
10 and probably come up with a consensus. But to tie that to
11 the PA means basically that the CEC is dictating to the
12 BLM what the conditions of our PA is going to be. And I
13 don't have any certainty at all at this time that we could
14 do that within our schedule.

15 HEARING OFFICER KRAMER: Okay. So does what Mr.
16 McGuirt suggested as an alternative to what was proposed
17 in the staff analysis work for you? Or is it creating a
18 situation where the CEC is --

19 DR. HUNTER: It all works for me except making it
20 a condition of the PA. If it must be a part of the PA
21 then I don't believe that my management will go along with
22 that. If we can have an agreement, an MOU, anything short
23 of a PA, we would be willing to consider that.

24 HEARING OFFICER KRAMER: So let me see if I
25 understand. So are you saying you're not sure if you will

1 ultimately have a PA?

2 DR. HUNTER: No, we definitely are going to have
3 a PA. But what my concern is, right now we know what we
4 are going to put into the PA. We have a draft written.
5 If in addition to that we have to negotiate with the CEC
6 cultural resources to come up with a Plan A and Plan B and
7 go out and do more diagnostic work to determine site types
8 and compare site types from inside the AP and outside the
9 AP to determine which areas we are going to preserve, I
10 don't believe we can make our schedule and do that.

11 I love to preserve sites. And what I'm saying is
12 that even if we make an area a ACEC and we put into the
13 resource management plan that there will be no ground
14 disturbance. I would be misleading the Commission if I
15 said that those sites would be protected in perpetuity.
16 We cannot do that as public land managers. If an
17 application came in for another solar facility where those
18 sites are located, we cannot deny it based on cultural
19 resources. The bottom line is, what protects the
20 information in those sites is the Section 106 process. If
21 we can't preserve the sites, if something happened that
22 those sites were going to be impacted, we would be
23 required by Section 106 to test and/or do data recovery on
24 those sites if it merited it.

25 I don't want to mislead the CEC into believing

1 that setting aside an area on BLM land protects it from
2 all actions that could potentially affect the site. We
3 can't do that. But what I thought was good about the
4 proposal is that if we're looking at sites in the APE that
5 we have found to be ineligible, but there are
6 distinguishable site types, we find those same site types
7 outside the APE. What we are doing, in effect, is saving
8 that information until such time as its impacted. And
9 then the CEC would get the information that they wanted
10 from those ineligible sites.

11 We are -- I mean, it's rare that three
12 archaeologists agree with these other. We have three
13 professional archaeologists who have agreed on the
14 eligibility of these sites. I mean, we disagree among
15 ourselves all the time and we argue it out.

16 HEARING OFFICER KRAMER: Have you considered
17 going to law school?

18 (Laughter.)

19 DR. HUNTER: I wish I had gone to law school.

20 So what I understand the concerns of the CEC
21 cultural resources is that there is potentially
22 information below the surface. And what we're saying is,
23 we agree that there is potential information that
24 theoretically could be under the surface because you can
25 never be 100 percent certain unless you dig. But the

1 federal government's informal policy is that we don't dig
2 unless Section 106 calls for it. So the proposal to me,
3 the good thing about it is that the information that the
4 CEC wants to know is, is there anything under the surface
5 and what is it.

6 Well those sites that we have avoided by moving
7 the footprint contains that information and we will
8 preserve it until such time that we can no longer legally
9 do that. But we will still provide the information that
10 the CEC would have attained had we tested the ineligible
11 sites.

12 And men are big and strong but women hang in
13 there for a long time. I'm sorry, this is a silly hour
14 for me.

15 HEARING OFFICER KRAMER: So, Mr. McGuirt, what I
16 just heard was that to assume that the sites that you're
17 hoping to set aside will remain as they are now forever is
18 perhaps a -- well, a suspect assumption. Now how would
19 that affect your analysis?

20 MR. MCGUIRT: What Dr. Hunter points to is a
21 matter of fact. There isn't any way as far as I know
22 and the BLM would have to be ones to determine that, to
23 lock it up, you know, completely. It's a matter of how
24 many layers of protection you can put over it. And so
25 between the designations of them as ACEC and because of

1 their designation of the resources as being eligible for
2 the National Register puts a couple of layers of
3 protection on it. And while it may come to a time when
4 they aren't preserved, I think that it would postpone or
5 prolong that period that it was preserved. And if a time
6 came when it was necessary, when the BLM felt it was
7 necessary to authorize action on that land, everyone would
8 be very well aware of how important those sites were and
9 they would be taken care of, you know, in a way probably
10 beyond what they would have otherwise.

11 HEARING OFFICER KRAMER: So at that point
12 curation would be an acceptable alternative form of
13 mitigation to preservation?

14 MR. McGUIRT: Recovery, recovery, yeah.

15 HEARING OFFICER KRAMER: Okay. So you still
16 believe that despite the uncertainty of the preservation
17 of the sites, these mitigation sites as they are, that it
18 would be adequate mitigation to reduce the impacts to the
19 similar resources that are going to be developed to
20 insignificant levels?

21 MR. McGUIRT: As I said, I believe that through a
22 number of methods, including the ACEC designation, their
23 designation of the resource as eligible for the National
24 Register and other methods that we might layer on there,
25 that you can essentially put on layers of protection that

1 aren't ironclad in any way, as Dr. Hunter provided out,
2 but that do provide a measure of protection so that you
3 can make a reasonable case that these are being set aside
4 for all practical purposes.

5 HEARING OFFICER KRAMER: Thank you. Any --

6 MS. FOLEY GANNON: A couple of things that I
7 think might be just helpful in having the Committee
8 understand what has occurred and how we got here. Because
9 at this late of hour it may be a little confusing to walk
10 into it.

11 It might be helpful if you, Ms. Nixon, can just
12 describe a little bit about the investigations that
13 happened on this site and the conclusions that you came
14 to, the ones that Ms. Hunter was referring to that you and
15 LSA and the BLM, the famous three archaeologists agreeing
16 with each other. If you could just describe that very
17 briefly for the Committee.

18 MS. MILES: One moment. As a point of order I'm
19 just wondering, I'd like to actually ask a few follow-up
20 questions before we move on to the --

21 MS. FOLEY GANNON: I thought they were panels. I
22 thought the applicant got the next --

23 MS. MILES: -- applicant's witness.

24 MS. FOLEY GANNON: They were a panel.

25 MS. MILES: Right, but I wanted to ask a couple

1 of clarifying questions of Dr. Hunter and of Mr. McGuirt.

2 MS. FOLEY GANNON: Okay, I thought I went next
3 then the intervenors went.

4 MR. BABULA: I wasn't sure I was finished.

5 MS. FOLEY GANNON: Oh, I'm sorry.

6 (Laughter.)

7 MS. FOLEY GANNON: You've got to finish, I'm
8 sorry.

9 HEARING OFFICER KRAMER: Okay. Mr. Babula then
10 Ms. Gannon then Ms. Miles.

11 MR. BABULA: Okay. I'd like to give Mike a rest
12 and turn to my other, my other cultural expert who is
13 drinking water. How about national park status for the
14 I'm just kidding.

15 If you could quickly discuss CUL-6, since that
16 came up in the context of Route 66. And just briefly
17 state what you're trying to achieve and how, since the PA
18 is actually -- the triggering mechanism to require the PA
19 was the review of Route 66. If you can just quickly
20 describe that.

21 MS. FORREST: Sure. This is Kathleen Forrest.

22 CUL-6 was developed as a mitigation for the
23 significant impact to Route 66 and it's staff's
24 recommendation. It provides for Historic American
25 Landscape Survey documentation of the section of Route 66

1 within the project area. The short version of that is
2 HALS.

3 HALS documentation includes photographs, archival
4 photographs, written documentation and in this case a
5 sketch map. And the purpose of it is to document historic
6 landscapes, significant historic landscapes in an archival
7 manner that's accessible to the public. At the federal
8 level it would be deposited at the Library of Congress and
9 can also be deposited at local and state institutions.

10 During our workshop this afternoon I think we
11 agreed to do what's known as a Level 3 HALS documentation,
12 which would include archival photographs, an expanded
13 written component, which the applicant has the majority of
14 I think, and a sketch map.

15 This would also -- this type of documentation is
16 also applicable as mitigation at the federal level and
17 would apply if agreed to by the BLM for the programmatic
18 agreement. I think that's it, briefly.

19 MR. BABULA: Thank you.

20 Mr. McGuirt, would you like to address any of the
21 things that BLM has stated?

22 MR. MCGUIRT: I would, thank you.

23 One statement that Dr. Hunter made that I would
24 like to correct is she mentioned a couple of times that as
25 she understood it, that our interest at the staff level at

1 the Energy Commission with relation to the archaeological
2 resources and the eligibility determinations was to
3 determine whether or not there were any subsurface
4 deposits on the archaeological resources.

5 And that's really not the focus of our interest
6 on this. We defer to the BLM, of course, to formulate and
7 to offer their determinations of National Register
8 eligibility on these sites. Cultural resources staff here
9 at the Energy Commission, our primary concern is we don't
10 feel that there is enough information in hand in order to
11 be able to support our determinations of whether things
12 are eligible under the California Register or not. This
13 is the primary focus of our concern.

14 We understand the BLM's hesitancy to accept and
15 to we understand's the BLM's, I guess that's the way to
16 put it, hesitancy, to have the Section 106 PA negotiation
17 process constrained or appear to be constrained by what
18 our suggestions are and our conditions of certification.
19 That is not what we are trying to do. We have
20 participated in the development of the PA process for the
21 Imperial Valley as one party among many to negotiate the
22 outcomes in that agreement document and we would like to
23 do the same here.

24 We have in this case, in this particular siting
25 case, a difference of opinion, a professional difference

1 of opinion when it comes to how much information is
2 necessary to arrive at these determinations. And what
3 we're asking, basically, and it's an up-front explicit
4 request, is that in the spirit of the MOU that our
5 agencies have signed to work together and to work
6 cooperatively, that the BLM consider reaching a compromise
7 with us in the PA process to allow us to at least put in
8 this caveat in there that says, you know, basically, in
9 the unlikely event that this study that we're proposing
10 were to show that the resources that have been set aside
11 are not equivalent to and they are not representative of
12 those that are in the APE that we would go ahead and do
13 evaluations. The purpose of which would not, again, not
14 be to look at what's at the subsurface but the purpose of
15 which is to gather enough evidence for us to be able, as
16 cultural resources staff at the Energy Commission, to
17 support our determinations of whether things are eligible
18 or not under the California Register.

19 At no time and in no way is our purpose as
20 cultural resources staff to try to dictate or to cajole or
21 coerce the BLM into doing anything that it doesn't want to
22 do, that's not what we're about. And I think you all know
23 that. I mean, we've tried very diligently in the last two
24 years to work together collaboratively and I think we've
25 done a great job and we're trying to continue to do that.

1 And in that same spirit say, you know, can you
2 guys throw us a bone. Can you let us at least put this
3 condition in the PA that says, you know, if this study
4 doesn't work out we can, you know, have a look at going
5 back and doing these evaluation phase exercises on these
6 resources. We are not trying to violate BLM policy.
7 We're asking that the BLM recognize that, you know,
8 they're a joint agency in this case. That, you know, the
9 lesser state agency has these concerns, can you help us
10 address them.

11 Because where that leaves us if we don't, if the
12 BLM is unable to kind of meet with us on that compromise
13 and to help as effect that, that's going to leave us in
14 the position of basically putting what we've proposed here
15 today not in the PA but in our condition of certification,
16 which is going to put the applicant in an awkward
17 position. And we would like to avoid that if that's
18 possible.

19 DR. HUNTER: I believe that you have the
20 sincerest desire to protect the resources, as do we. And
21 the way that we do that may look different. I feel that
22 the sites that we have avoided have the information that
23 research would produce. On the question of whether or not
24 the sites in the APE are eligible or not really is between
25 the BLM and the SHPO. If we find that these sites are

1 ineligible the SHPO has the opportunity to say, I disagree
2 with that. And then we're in that position.

3 But short of the SHPO requiring us to revisit the
4 eligibility of the site, I can't see my management
5 considering getting into a situation that potentially will
6 slow down the PA process. Right now they want that PA
7 done and completed yesterday and we are struggling to get
8 it done in time. I just cannot, without my management
9 telling me differently, I can't make that a condition of
10 the PA.

11 I think that we need to go ahead with our PA,
12 determine whether the SHPO will concur with us as to the
13 eligibility of the sites. And I have been told by the
14 SHPO's office that more than likely they will concur with
15 us because their major concern was the Route 66 integrity
16 issue. And so the SHPO's office seems to be mainly
17 concerned that we address the issues of Route 66, which we
18 are writing, I suppose, as we speak.

19 I don't believe with the level of documentation
20 that was done for the sites in the APE that it is
21 questionable whether or not they are eligible. We found
22 them not eligible to the National Register.

23 MR. BABULA: Would you like to respond to that,
24 Mr. McGuirt?

25 MR. MCGUIRT: Thank you.

1 MR. BABULA: I think that we should -- let's let
2 him respond but I don't want to get into this big turf
3 war. We may want to move on but let's just respond.

4 MR. MCGUIRT: There's no turf war here, just
5 clarification.

6 You made a clarification at the very end there
7 that you had found them eligible for the National
8 Register. And you were speaking to SHPO's role in that,
9 given that there's an adverse effect it kicks you outside
10 of your protocol and you're dealing with straight Part 800
11 regulations and SHPO, you know, concurs or not and your
12 determinations of eligibility for the National Register.

13 What that doesn't address, and I just want to
14 clarify that the BLM understands that is, is that we have
15 a obligation under CEQA to make determinations of
16 eligibility on the resources that are on your land for
17 whether or not they're eligible for the California
18 Register. That's our charge as the lead agency under
19 CEQA. And the SHPO doesn't have a role in that
20 determination for us for the California Register.

21 And so what inadvertently or otherwise happens is
22 by insisting that the National Register determinations are
23 the only consideration basically in terms of how we're
24 dealing with the joint environmental process here, it
25 leaves us no wiggle room and no place in the process for

1 we that have to make the determinations under CEQA for the
2 California register.

3 And that's what we're asking, you know, BLM
4 management, is can you give us some latitude here. Can
5 you account for us that, you know, as joint agencies in a
6 joint process that have a signed MOU that says we're going
7 to work together, can you evidence that were going to work
8 together by allowing us this latitude to put provisions in
9 the Section 106 programmatic agreement that allows us to
10 fulfill our charge under CEQA.

11 DR. HUNTER: I guess what I don't understand, and
12 part of my misunderstanding of this is that if we are
13 going to forego testing in the APE by preserving sites
14 outside of the APE, what does that have to do with the
15 eligibility of the sites in the APE?

16 MR. MCGUIRT: As I was trying to explain earlier
17 and admittedly did it in somewhat of a confused manner,
18 it's basically two different approaches to the same end.
19 And the end is that we're trying to mitigate the project's
20 effects to, you know, historical resources for us and
21 historic properties for you all under your regulations. So
22 two different ways of looking at doing that.

23 Or it can be that we can go the traditional
24 route, the more or less traditional CRM route, which is to
25 identify and ultimately to do data recovery and recover

1 some sample of the information for which the resources are
2 significant. Or we can attempt to preserve them and
3 that's mitigation. So it's two different routes of
4 mitigation. And what we're saying is that in the
5 conditions that we have we sort of set up the traditional
6 route. And we still want some more information because,
7 you know, from the Energy Commission's perspective we
8 don't have enough to make those assessments under the
9 California Register so we're going go, you know, more or
10 less the regular routine.

11 The proposal that Fred came up with today was a
12 good one because it offered us an entirely different route
13 to go, which was to try and preserve some of these sites.
14 And it's like, okay look, if we can demonstrate for the
15 record, because we're answerable, you know, under CEQA to
16 the regulations themselves as well as to the public and
17 other interested parties, if we demonstrate in evidence
18 that the resources that have been set aside are
19 representative of the resources in general across the
20 population in what is now the APE for the project, we've
21 preserved some of the sites. And so we can, you know, in
22 theory, go and destroy those that are now in the APE
23 because we've set aside for some undetermined long period
24 of time, not in perpetuity, the sites that are in the
25 avoidance areas. Which would, you know, make them

1 available for future research and to gain the information
2 that we would have had. So that's the preservation option
3 versus going the data recovery option.

4 And what we're saying is, you know, you all have
5 told us and we can see, you know, we can understand
6 although we don't believe it quite to the degree that you
7 do, that the result of this study is going to be that we
8 will find that either the sites that you have set aside
9 for avoidance are now representative of those things that
10 are in the APE or with a few amendments would be. And
11 then we could set that aside and that would be successful.

12 We have to demonstrate under CEQA that we have
13 made provisions of the fact that that the results of that
14 study may not be that, however small that chance may be we
15 need to demonstrate that. And so the bone that we're
16 asking the BLM to throw us is to allow us to stick in the
17 PA the things that says if that study comes back and says
18 that those resources are not representative or cannot be
19 made to be representative by amending those avoidance
20 areas then we will be allowed to proceed with some version
21 of what we have in CUL-4 so that we can, you know, say
22 that we have made provisions to gather the information
23 that we need to make our determinations under the
24 California Register.

25 MR. BABULA: Well here's what I propose we do

1 because this could go on all night and it's fascinating
2 but I have a Committee PMPD hearing tomorrow that I'd like
3 to be rested for.

4 I think we're going to go back and -- I believe
5 the record is sufficient that we can go back and change
6 our conditions of certifications to reflect the concepts
7 we put forth today, whether they are stand-alone or
8 whether they are both and it indicates if it's in the PA
9 then it goes that way. And since I believe now there's a
10 workshop scheduled for Tuesday and another hearing on
11 Wednesday. If we can get those out for a comment by all
12 the parties and then move forward with that to get a final
13 conditions of certification that interplay with the PA.
14 At the same time we can go back and have some discussions
15 with BLM and maybe get upper management involved and see
16 if we can get some resolution on that front and then go
17 from there.

18 MS. MILES: And I would like to just make an
19 amendment to that, that proposal. And that's that the
20 report that Mr. McGuirt was describing that would need to
21 be created, if the staff could circulate a little bit more
22 detail on what would be required in that.

23 And secondly I was wondering if we could ask that
24 the SHPO be available for the Wednesday hearing.

25 HEARING OFFICER KRAMER: Can the staff make that

1 overture to the SHPO?

2 MR. BABULA: Do you guys know people at SHPO?

3 I think you used to work at SHPO, right?

4 MR. McGUIRT: Yeah, I used to work at SHPO.

5 Is it alright with you if we did that or would
6 you prefer to do that?

7 DR. HUNTER: I would not like to do that.

8 (Laughter.)

9 MR. McGUIRT: Do you mind if I do that?

10 DR. HUNTER: No, not at all, no.

11 MR. McGUIRT: Okay, all right, I will do that.

12 MR. BABULA: I have no further questions for my
13 witnesses here.

14 HEARING OFFICER KRAMER: Okay. In light of the
15 fact that this is going to be workshopped, Ms. Gannon, do
16 you have questions?

17 MS. FOLEY GANNON: I am completely in agreement
18 with this proposal.

19 HEARING OFFICER KRAMER: Okay. Ms. Miles?

20 MS. MILES: I do have cross examination based on
21 Mr. McGuirt's testimony and I have some questions for Dr.
22 Hunter. I can definitely reserve my questions for Mr.
23 McGuirt's testimony if we would prefer to do that on
24 Wednesday after we see the full proposal. But I would
25 like to go ahead and ask my questions of Dr. Hunter in any

1 event because I'm not sure if she is going to be
2 available, with us.

3 DR. HUNTER: I will.

4 MS. MILES: You will?

5 DR. HUNTER: I'll be here.

6 MS. MILES: Okay. So I'm not sure what the
7 Committee would prefer.

8 HEARING OFFICER KRAMER: If your questions of Dr.
9 Hunter don't relate to seeing the proposal in writing I
10 think it's fine to ask those now. But it sounds likely
11 that your questions might be answered if you see more
12 specifics about Mr. McGuirt's proposal so I would suggest
13 you hold those.

14 MS. MILES: Okay, I'm willing to do that.

15 CROSS EXAMINATION

16 BY MS. MILES:

17 Dr. Hunter, I heard you talk about the APE
18 several times and I was wondering if you could just
19 explain what you mean when you say the APE.

20 DR. HUNTER: The area of potential effect. It is
21 the, it is the area of potential effect. It is the area
22 within which any archaeological site or historic property
23 has the potential to be affected.

24 MS. MILES: And so does that include visual
25 effects or effects on the feeling associated with the

1 property?

2 DR. HUNTER: It's a good question and it's not
3 actually easily answered. Within archaeology we have some
4 pretty direct and specific rules and regulations that go
5 along with policy and law. The rules and regulations are
6 not as well defined, if at all, for more aesthetic
7 qualities. While there are cultural landscapes, there are
8 view sheds, there are aesthetic qualities that are not as
9 easily defined. And I think the cultural resources world
10 is struggling to define that better and determine how we
11 are going to protect those resources. But in order to
12 protect them you have to define them and that remains a
13 difficulty.

14 MS. MILES: So when you --

15 HEARING OFFICER KRAMER: There is, I'll note, a
16 discussion in Staff's Supplemental Staff Assessment that
17 was filed on the 9th at page C.2-3. And it explains what
18 APE means.

19 MS. MILES: Well, the reason I'm asking is I was
20 wondering what you mean when you say that these resources
21 that are eligible for the National Register have been
22 excluded from the APE and whether you included the effects
23 that might occur on, you know, a visitor to that National
24 Register site who is, you know, experiencing the resource.

25 DR. HUNTER: The sites that I'm referring to are

1 archeological sites that are not available to the public.
2 You may know that we do not divulge the location of
3 archeological sites. And these are not sites that are
4 open to the public in the sense that we don't tell the
5 public where they are.

6 MS. MILES: Thank you. You mentioned an ACEC or
7 area of critical environmental concern. And I was
8 wondering if you could explain what is the process to
9 create an ACEC.

10 DR. HUNTER: That is the field manager's option.
11 I'm not honestly qualified to answer that, I'm not a field
12 manager. I believe it's an option of -- do you know the
13 process?

14 MR. SHEARER: I don't, no.

15 DR. HUNTER: It's managerial level at the field
16 office.

17 MR. SHEARER: That's information that we could
18 have next Wednesday. But I'd like to let people know that
19 BLM, we have a limit to the amount of hours that we can
20 put in in a day. We are exceeding that and it would be
21 beneficial if we continued this at a later time.

22 DR. HUNTER: Go.

23 MS. MILES: I'd like to just go ahead. I mean, I
24 don't have a lot. I only have probably three more
25 questions so could I go ahead and complete that?

1 HEARING OFFICER KRAMER: Go ahead, please.

2 MS. MILES: Okay. Just to clarify if I
3 understand you correctly, you could not guarantee that
4 that area that's been designated as eligible would become
5 an ACEC?

6 DR. HUNTER: I mean, I think I understood that
7 you asked, would I be able to guarantee that an area that
8 we would set aside because of the cultural resources, that
9 I couldn't guarantee that that would become an ACEC?

10 MS. MILES: Right, because you were talking about
11 the potential for that to be protected as an ACEC. And I
12 just wanted to get a sense of, could you guarantee that it
13 would be protected?

14 DR. HUNTER: No, I can't guarantee it. But as I
15 said earlier, the real protection for the site is not the
16 ACEC designation, it's the eligibility to the National
17 Register that kicks in Section 106 or is part of the
18 Section 106 process. That any action that we would take
19 that had the potential to affect that site would have to
20 be taken into consideration and we would have to go
21 through the Section 106 process.

22 The ACEC designation is a policy acknowledgement
23 that an area is of critical concern because of either
24 natural or cultural resources. It would not be I don't
25 think it would be anything out of the ordinary for an area

1 that we agreed upon that should be set aside could be
2 designated an ACEC.

3 MS. MILES: Okay, that answers my question.

4 MR. SHEARER: Just to clarify things. The fact
5 that these sites have been determined eligible, are
6 eligible for the National Register. For any further
7 project to occur on those lands would require going to the
8 SHPO, going to the advisory council and setting out a
9 mitigation plan where you would do data collection on the
10 site. And that's probably the best type of protection
11 those sites can have.

12 Also in our process we've had extensive talks
13 with the tribes on these sites. And if at a later date
14 there was something that was going to happen to these
15 sites, we would go to the tribes again in consultation.
16 And the tribes have a lot of weight and discussion on
17 these. So we're to the point where they have significant
18 protection already.

19 MS. MILES: Thank you. I'm not sure if the 1980
20 California Desert Conservation Plan is in the record but I
21 would like the Committee to take judicial notice of that
22 plan. It does discuss ACEC designation. And there's a
23 Native American element that I think is directly relevant
24 to the proceeding.

25 HEARING OFFICER KRAMER: Is there any objection

1 to taking official notice of that?

2 MS. FOLEY GANNON: No objection.

3 MR. BABULA: No objection.

4 HEARING OFFICER KRAMER: Could you provide us,
5 though, with either a PDF copy or a link to one that we
6 can obtain?

7 MS. MILES: Sure, yeah, it is available online.

8 HEARING OFFICER KRAMER: Okay. So if you can
9 just email that link to everyone.

10 Is that it? Your lights off so I'll assume --

11 MS. MILES: Yes, I'm wondering, are we going to
12 go forward then with my witness, Dr. Whitley? I'm just
13 curious because I'm not sure if he's available on
14 Wednesday and I'd like to check with him, perhaps right
15 now.

16 MR. WHITLEY: This is Dave Whitley. I can be
17 available after about two o'clock on Wednesday.

18 MS. MILES: Okay. So I'm not sure if the
19 Committee would like to go forward with examination of him
20 now. But I think it would probably be prudent to wait
21 until after we get the additional information and have a
22 chance to review it.

23 HEARING OFFICER KRAMER: Okay. We're only going
24 to start at one o'clock so I think we'll be fine to have
25 him be available at two or later.

1 So Mr. Whitley, then you could take the rest of
2 the evening off, what's left of it.

3 (Laughter.)

4 MR. WHITLEY: Thank you.

5 HEARING OFFICER KRAMER: You're welcome.

6 PRESIDING MEMBER EGGERT: Also again I want to
7 thank the folks from BLM. And Mr. Shearer, if it makes
8 you feel any better, I appreciate the limitation on hours.
9 But so you don't feel too bad, we're currently doing this
10 work without actually getting paid at all.

11 MR. SHEARER: Now you've got the extra days off.

12 PRESIDING MEMBER EGGERT: Yes, that's correct,
13 more time for vacation.

14 MR. BABULA: That's right, I've worked 17
15 furlough days. You won't see me in October probably.

16 (Laughter.)

17 HEARING OFFICER KRAMER: So do we have any more
18 witnesses we need to put on today for the convenience of
19 their schedules or for any other reasons?

20 Nobody is saying. Do we have anybody here who is
21 not going to be available if we need them on Wednesday
22 afternoon?

23 PRESIDING MEMBER EGGERT: Actually I have a
24 question in terms of maximizing the effectiveness of
25 Wednesday. Are you currently planning on working through

1 some of the issues that we just recently discussing at the
2 Tuesday workshop?

3 MR. BABULA: Yeah. Our plan was to try to get
4 out draft conditions that reflect what we discussed here
5 and then also have some discussions with BLM so that we
6 could discuss those in Tuesday's workshop. So in theory,
7 at least between us and the applicant on Wednesday we
8 might not have any issues regarding the conditions or how
9 that would work. Although I expect CURE's expert will
10 have some issue.

11 PRESIDING MEMBER EGGERT: Okay. Chris.

12 MR. MEYER: Given that I want to go back to the
13 applicant who was asking for Tuesday afternoon. Or we
14 might be back to my eight a.m. eastern time start on this
15 workshop if we had a lot of issues and as the Hearing
16 Officer stated we want to get through everything we can.
17 I just want to get it -- people, when you provide me your
18 topics give me an idea of how long you think you'll need
19 so that we can get an idea of when we're actually going to
20 have to realistically start the workshop.

21 MS. FOLEY GANNON: And we do -- most of our team
22 has a meeting in Sacramento 10 until 12 on Tuesday. So we
23 could start earlier but then we do need to be at another
24 meeting 10 to 12. That can't be rescheduled.

25 MR. MEYER: Okay. So we'll work on anything that

1 people can share in writing before that we can work out so
2 that we can maximize our time. And then we'll just plan
3 on starting it at one o'clock. Give you guys an hour to
4 get organized from your other meeting. And we'll go from
5 there until we need to adjourn.

6 HEARING OFFICER KRAMER: Okay, do we have any
7 other business to discuss?

8 MS. MILES: I actually -- I didn't hear back from
9 staff as to whether they'd be able to provide a
10 description of the proposal for a study. Will that be
11 available before the workshop?

12 HEARING OFFICER KRAMER: It actually sounds like
13 the sort of thing that would be in a condition.

14 MR. BABULA: It will probably be in the
15 conditions to lay out the sort of performance
16 requirements. I think if we can get those put together
17 that's the best. And then we can just, you can ask about
18 them and we can discuss.

19 MS. MILES: Okay. As long as, you know,
20 something --

21 MR. BABULA: Right.

22 MS. MILES: We'll all be able to review sort of
23 the details.

24 MR. BABULA: Right. We want you to have
25 something to look at.

1 MS. MILES: Thank you.

2 HEARING OFFICER KRAMER: And very shortly after
3 the workshop it needs to be reduced to the form of
4 proposed conditions for the Committee.

5 Is there any other business?

6 Okay. Is there anyone on the telephone or in the
7 room who wishes to make a public comment?

8 On the telephone? There's one person who is
9 muted, let me unmute them.

10 Okay, let's call for a public comment from the
11 telephone.

12 Okay, this hearing is hereby continued to
13 Wednesday, August 25th at 1:00 p.m., probably in Hearing
14 Room A, which will be a little less cozy than this room.
15 And in fact that's the room we've reserved. So we'll
16 follow it is expected that the Commission's Business
17 Meeting will be over by then. If it is not we'll need to
18 wait until it concludes.

19 PRESIDING MEMBER EGGERT: We'll do our best to be
20 efficient in the Business Meeting as well.

21 HEARING OFFICER KRAMER: So thank you all and
22 good night to everyone on the telephone.

23 PRESIDING MEMBER EGGERT: Good night everybody.

24 (Whereupon, at 10:42 p.m. the
25 Evidentiary Hearing was adjourned

1 CERTIFICATE OF REPORTER
2

3 I, JOHN COTA, an Electronic Reporter, do hereby
4 certify that I am a disinterested person herein; that I
5 recorded the foregoing California Energy Commission
6 Evidentiary Hearing; that it was thereafter transcribed
7 into typewriting.

8 I further certify that I am not of counsel or
9 attorney for any of the parties to said hearing, nor in
10 any way interested in outcome of said hearing.

11 IN WITNESS WHEREOF, I have hereunto set my hand
12 this 20th day of August, 2010.

13 
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15 JOHN COTA
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