

EVIDENTIARY HEARING
BEFORE THE
CALIFORNIA ENERGY RESOURCES CONSERVATION
AND DEVELOPMENT COMMISSION

In the Matter of:)
)
Application for Certification for) Docket No.
The Ivanpah Solar Electric) 07-AFC-5
Generating System)
_____)

CALIFORNIA ENERGY COMMISSION
HEARING ROOM A
1516 NINTH STREET
SACRAMENTO, CALIFORNIA

MONDAY, JANUARY 11, 2010

9:20 A.M.

Reporter - Peter Petty, CER**D-493
Transcriber - Margo Hewitt, CET**00480
Contract No. 170-08-001

PETERS SHORTHAND REPORTING CORPORATION (916) 362-2345

COMMITTEE MEMBERS PRESENT

Jeffrey Byron, Presiding Member

James Boyd, Associate Member

HEARING OFFICER AND ADVISERS

Paul Kramer, Hearing Officer

Kristy Chew, Adviser

Tim Olson, Adviser

STAFF AND CONSULTANTS PRESENT

John Kessler, Project Manager

Dick Ratliff, Staff Counsel

William Kanemoto (via teleconference)

Susan Sanders

Scott Flint

California Department of Fish and Game

APPLICANT

Jeffery D. Harris, Attorney

Samantha Pottenger

Ellison, Schneider and Harris, LLP

Steve De Young, Vice President

Todd Stewart

Arthur Haubenstock, Chief Counsel

Bright Source Energy

John Carrier

John Cleckler

W. Geoffrey Spaulding

CH2MHILL

Thomas Reagan

Mark Cochran

INTERVENORS

Greg Suba
Jim Andr
California Native Plant Society

Joshua Basofin
Ron Marlow
Defenders of Wildlife

Laura Cunningham
Kevin Emmerich
Basin and Range Watch

Bart Brizzee, Deputy County Counsel
(via teleconference)
County of San Bernardino

Michael Connor
Western Watershed Project

Lisa Belenky
Ileene Anderson
Mark Jorgensen
Center for Biological Diversity

ALSO PRESENT

Thomas Hurshman, Project Manager
Bureau of Land Management

Mark Silverstein (via teleconference)
Tucker Field
Clark County Department of Aviation

Hana Rocek (via teleconference)
Nevada Department of Aviation

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

2 9:20 a.m.

3 PRESIDING MEMBER BYRON: I'm sorry that
4 we're late getting started this morning. I'm
5 Commissioner Jeff Byron and I'm the Presiding
6 Member for the Committee for the Ivanpah
7 Generating Station application for certification.

8 We're here this morning in Sacramento to
9 begin evidentiary hearings.

10 I'll just do some quick introductions
11 along the dais here, and then we'll do some
12 prolonged introductions with regard to all the
13 interested parties.

14 My Associate Member on this Committee is
15 our Vice Chair Boyd. And with him is his Adviser,
16 Tim -- I'm sorry, I just drew a blank -- Tim
17 Olson. My Adviser, I hope I don't draw a blank
18 on, Kristy Chew. And our Hearing Officer Paul
19 Kramer.

20 Mr. Kramer, if I could I'd like to just
21 make some opening remarks. And, again, I
22 apologize that we're late getting started this
23 morning. Monday mornings are always a little more
24 challenging, and we had some technology issues.
25 And I understand Mr. Kramer's doing all the

1 clerical issues today, as well.

2 I want to make clear to everybody that
3 this is an extremely important project for this
4 Commission. Of course, Commissioner Boyd, all
5 projects before this Commission are important, but
6 this represents the first of what we hope will be
7 many renewable projects that will come before the
8 Energy Commission.

9 It's unique in that regard, but also in
10 that it has a number of large land use issues
11 associated with it, and biological and others that
12 will come up.

13 It's also an important project because
14 it's the first with our federal partners, the
15 Bureau of Land Management. This is how California
16 hopes to move to much higher renewables as part of
17 our policies in the state going forward. Thirty-
18 three percent is what we have in mind.

19 I also want to make it clear to all the
20 parties that no decision has been made with regard
21 to the outcome of this proceeding. I want to be
22 as explicit as I can about that. We do not know
23 if the project will be approved. And if approved,
24 we do not know at this point what the conditions
25 will be that would apply. This is why we're here

1 to gather the necessary evidence to make a
2 determination.

3 I believe we also have a record number
4 of intervenors on this project. By my count I
5 think it's eight. That also makes this a somewhat
6 unique and challenging project for us, as well.

7 I apologize for all those on the phone
8 that we are conducting these hearings in
9 Sacramento. We have other limitations around
10 resources and cost. And so I appreciate your all
11 being here bright and early on a Monday morning.
12 And hope you'll plan to be here with us during the
13 week.

14 That having been said, those that are on
15 the phone, as Mr. Kramer indicated, we're relying
16 upon technology. And you need to let him know as
17 quickly as you can if we lose the phone line.
18 We're not backing it up; we'll just have to pick
19 it up from there.

20 Back to the parties. Based upon all the
21 prehearing conference statements, you all have
22 significant concerns. And I'm also very impressed
23 thus far that everyone has acted in a very
24 professional manner, indicating an interest in
25 resolving this application in a timely manner. So

1 I encourage you to continue to do that all this
2 week.

3 We're intent upon completing the
4 evidentiary hearing this week. And we're not
5 interested in any delays that are based upon
6 procedural issues. I want information, and I want
7 evidence that will lead towards our making a
8 decision.

9 Please carefully consider your
10 objections. This is not a court of law. Mr.
11 Kramer will assist us in making rulings as needed,
12 but the task at hand is to complete this hearing
13 this week.

14 I hope it's also clear that Commissioner
15 Boyd and I will be making a recommendation to the
16 full Commission. You are presenting to us, not to
17 each other. Please be civil and courteous, as you
18 have. It may get difficult at times, but I
19 guarantee you everyone will be heard.

20 Mr. Ratliff, please speak loudly.

21 (Laughter.)

22 PRESIDING MEMBER BYRON: And, Mr.
23 Harris, please speak softly.

24 (Laughter.)

25 PRESIDING MEMBER BYRON: Commissioner

1 Boyd, anything else you'd like to add?

2 ASSOCIATE MEMBER BOYD: Well, I wasn't
3 going to say anything, but after your long
4 practiced statement there, just a couple of
5 comments.

6 I, too, want to thank everybody for
7 being here. This is the first marathon I've
8 participated in, I think, at the Commission. That
9 is, three to four days dedicated, in a row, to a
10 topic. Other projects have been marathons;
11 they've gone on for years. That's not the
12 objective here, to go on for days and weeks and
13 try to meet everybody's needs.

14 And I would just note that you were all
15 busy, many of you were busy over the weekend, as
16 were we, reading all that you were submitting over
17 the weekend. So, like you, I don't know that I
18 feel like I had a weekend. But in any event,
19 we're all in the same pool together, I guess, on
20 that particular point.

21 So, in any event, I just would second
22 everything Commissioner Byron indicated. And
23 we're prepared to stay a long time today, et
24 cetera, to give everybody their fair hearing and
25 to get this issue resolved.

1 I don't want to say it's precedential,
2 but certainly is first in the long line of
3 related-type projects.

4 In any event, enough said. We need to
5 get going.

6 PRESIDING MEMBER BYRON: Right. So, Mr.
7 Kramer, I turn it over to you and your able hands
8 to take us through the agenda that you've set out
9 for today.

10 And let's see, I guess one more request.
11 And that would be, could we please have all
12 callers put their phones on mute until they wish
13 to speak, because the callers are on an open line.
14 Thank you very much.

15 Mr. Kramer.

16 HEARING OFFICER KRAMER: Yeah, and to
17 add to that, don't put us on hold if you go away
18 from your desk, because sometimes your music
19 systems -- or your phone systems will play music
20 to us. And you'll be away from your desk, and you
21 know, we'll be scrambling to try to figure out how
22 to tell you to turn the music down. So, please
23 don't so that.

24 Use the mute function. I believe it's
25 star-6 on this telephone system. You would have

1 received that information when you first called
2 in. That's the way to do it if you don't have a
3 mute button on your telephone, itself.

4 So, without further ado, let's go ahead
5 and have all the parties introduce themselves,
6 beginning with the applicant.

7 MR. HARRIS: Good morning, it's a
8 pleasure to be here. I'm Jeff Harris on behalf of
9 the applicant. To my right is Steve De Young; to
10 my left is Samantha Pottenger with my office. And
11 to her left is Todd Stewart with BrightSource.
12 And to Todd's left is Arthur Haubenstock with
13 BrightSource, as well.

14 We have, of course, several members of
15 our team in the audience who will be witnesses or
16 otherwise participating later. They can introduce
17 themselves at that time.

18 So, thank you.

19 HEARING OFFICER KRAMER: Thank you. CEC
20 Staff.

21 MR. RATLIFF: I'm Dick Ratliff, counsel
22 for CEC Staff. And with me is John Kessler, the
23 Project Manager.

24 HEARING OFFICER KRAMER: Do we have
25 representatives from the BLM here?

1 MR. RATLIFF: I believe Tom Hurshman is
2 here. Yes.

3 HEARING OFFICER KRAMER: Anyone else?

4 MR. RATLIFF: We have Mr. Scott Flint
5 here from the Department of Fish and Game. And we
6 have our witnesses -- did you want to go through
7 all of the people who --

8 HEARING OFFICER KRAMER: No. But they
9 were on my list of agencies. Okay, so, just Mr.
10 Hurshman from BLM.

11 CURE? I guess they're not here today.
12 Western Watersheds Project?

13 DR. CONNOR: Yeah, good morning. I'm
14 Michael Connor, Western Watersheds Project.

15 HEARING OFFICER KRAMER: Thank you.
16 Sierra Club?

17 MS. SMITH: Good morning. Gloria Smith
18 with the Sierra Club. Good morning, Commissioners
19 Boyd and Byron, Hearing Officer Kramer, Gloria
20 Smith from the Sierra Club.

21 HEARING OFFICER KRAMER: Defenders of
22 Wildlife?

23 MR. BASOFIN: Good morning, Joshua
24 Basofin on behalf of Defenders of Wildlife.

25 HEARING OFFICER KRAMER: And Basin and

1 Range Watch?

2 MS. CUNNINGHAM: Laura Cunningham.

3 HEARING OFFICER KRAMER: Center for
4 Biological Diversity?

5 MS. BELENKY: Good morning. Lisa
6 Belenky and Ileene Anderson on behalf of the
7 Center for Biological Diversity.

8 HEARING OFFICER KRAMER: California
9 Native Plant Society?

10 MR. SUBA: Good morning. Greg Suba on
11 behalf of California Native Plant Society,
12 accompanied by Jim Andr,.

13 HEARING OFFICER KRAMER: And the County
14 of San Bernardino I believe is on the telephone?

15 MR. BRIZZEE: Yes, Bart Brizzee, Deputy
16 County Counsel for the County of San Bernardino.

17 HEARING OFFICER KRAMER: Thank you.
18 Let's see, we had Hana Rocek, I heard earlier,
19 from the Nevada Department of Aviation. And there
20 was somebody else with that agency? On the phone?

21 MR. SILVERSTEIN: Yes, Mark Silverstein
22 and Tucker Field with Department of Aviation.

23 HEARING OFFICER KRAMER: Along with
24 Hana?

25 MR. SILVERSTEIN: Correct.

1 HEARING OFFICER KRAMER: That was Tucker
2 Field?

3 MR. SILVERSTEIN: Correct.

4 HEARING OFFICER KRAMER: Okay, is there
5 anybody that I've missed?

6 MR. KANEMOTO: (inaudible).

7 HEARING OFFICER KRAMER: I'm sorry, you
8 need to speak up.

9 MR. KANEMOTO: Bill Kanemoto,
10 (inaudible).

11 HEARING OFFICER KRAMER: Okay, thank
12 you, Bill. Anyone else on the telephone?

13 PRESIDING MEMBER BYRON: Mr. Kramer,
14 what was the organization?

15 HEARING OFFICER KRAMER: Mr. Kanemoto is
16 the staff's visual witness.

17 Is there anyone else on the telephone
18 who wishes to identify themselves? Okay, hearing
19 none, that'll take care of the identification.

20 Do any of the parties have any issues
21 they need to raise in a preliminary manner before
22 we jump into the hearing topic areas?

23 MR. HARRIS: Could we have a description
24 of how you intend to put on witnesses? I'm still
25 unclear on the formal/informal thing, so it would

1 be helpful.

2 HEARING OFFICER KRAMER: Basically, as I
3 put it in the email, today we have this table in
4 the center of the fishbowl, if you will, where we
5 can have either individual witnesses testify or
6 it's certainly set up to accommodate even a couple
7 more chairs for a panel of witnesses.

8 We want to be flexible, but I think the
9 Committee will find it useful, where the parties
10 have agreed, I mean that's everything but biology,
11 to have all the witnesses answer a particular
12 question at one time, rather than have a witness
13 answer a question about some micro-topic, and then
14 hear the other parties response maybe an hour or
15 two later when it's time for, you know, that
16 witness to come up and testify.

17 Now, in the case of biology, Mr. Harris,
18 you did not wish to do it that way. And so we are
19 going to go the traditional route of having you
20 going first, putting your witnesses on. And then
21 we'll have cross-examination; probably redirect;
22 and perhaps even recross until we get our
23 questions answered.

24 And there will always be the opportunity
25 to bring somebody back up if you need to address

1 something that was said by a subsequent witness.

2 Does that answer your question?

3 MR. HARRIS: Yeah, that's very helpful.

4 I was wondering if you're going to do biology as a
5 single panel, or whether you were going to -- I
6 heard that maybe you were going to divide the
7 issues up and deal with botany separate from
8 desert tortoise. Just so my witnesses know what
9 to expect.

10 HEARING OFFICER KRAMER: Right. That
11 was a question I wanted to ask the parties. I
12 gather from something Mr. Ratliff said to me
13 earlier, that staff believes it would be perhaps
14 useful to break apart the tortoise issues from the
15 botany issues. Is that your preference, as the
16 applicant?

17 MR. HARRIS: I don't think we have a
18 strong preference. There's one category of
19 discussion, a very brief discussion, about
20 streambed alteration agreements. Not clear to me
21 which of those two panels you would put that
22 particular issue in. Seems to me to be closely
23 related to botany, but I think Mr. Ratliff has the
24 opposite view, so where would you deal with that
25 issue?

1 HEARING OFFICER KRAMER: Do you want to
2 give us your opposite view, Mr. Ratliff?

3 MR. RATLIFF: I don't have a strong
4 opinion about that. But the issue of the
5 streambed alteration permit is one which is, in
6 part, linked to desert tortoise habitat issues.
7 But secondarily, is also subject to the testimony
8 of Mr. Scott Flint, who will be one of our
9 witnesses on that issue, from the Department of
10 Fish and Game.

11 So it would seem like appropriately it
12 would be, to us it would seem more appropriate to
13 keep it on the issue of desert tortoise.

14 But I suspect it could be in either
15 panel.

16 HEARING OFFICER KRAMER: But if it
17 crosses over to both, then would it be more
18 helpful for us to have heard the other botany
19 testimony before we -- and the tortoise testimony
20 before we discuss any alteration issues?

21 In other words, maybe it should come
22 with the second topic, whichever one that is going
23 to be. So that we have the maximum amount of
24 background before we dig into that.

25 MR. RATLIFF: Well, if you -- I don't

1 know which you intend to do first. I had assumed
2 you would do desert tortoise first, and then we
3 would discuss the necessity of -- the requirements
4 of the streambed alteration agreement in that
5 context.

6 HEARING OFFICER KRAMER: Do any of the
7 other parties have a preference?

8 MS. BELENKY: Good morning. This is
9 Lisa Belenky. Yes. I don't have a preference
10 between those two, but there are other biological
11 issues, including the bighorn and some other
12 species issues. So I just want to make sure we're
13 clear when those would be, because we have experts
14 for those today, as well.

15 HEARING OFFICER KRAMER: And those
16 issues are different than the tortoise, or closely
17 related, I would assume, in some cases?

18 MS. BELENKY: I think they could work in
19 just after the tortoise, before, you know, before
20 plants. They're all related.

21 HEARING OFFICER KRAMER: Okay, so now
22 what I'm hearing is that we have three categories.
23 We have tortoises, botany and something I'll call
24 miscellaneous where we'll catch -- where not all
25 of the parties have identified, say, the bighorn

1 sheep as an issue that they want to discuss.

2 So, let's go first with tortoises. Then
3 we'll talk about botany. And then as part of
4 miscellaneous we'll take care of the streambed
5 alteration permit and all the other issues.

6 And I hope nobody is going to ask me to
7 predict exactly how long this is going to take,
8 because certainly I won't put any money on the
9 table, because we're just going to have to see how
10 efficiently we can get through the various
11 witnesses.

12 But before we break for noon, it might
13 be useful to stop and assess where we are and get
14 a better picture about when some of the other
15 issues might be coming up.

16 Before we get to biology, though, -- let
17 me ask, does anyone have any additional comments
18 on the micro-scheduling issues we just discussed?
19 Or are we ready to move on?

20 Seeing none, we committed today to first
21 talk about visual resources and then project
22 description briefly, before diving into the
23 biological resources discussion.

24 So let's go on to begin the -- or the
25 continuation of the visual resources testimony

1 that we received on December 14th.

2 Mr. Ratliff, I believe you had a
3 response?

4 MR. RATLIFF: Yes, Hearing Adviser
5 Kramer. At the close of the applicant's testimony
6 at the last hearing on visual resources, the
7 applicant introduced a document which is now
8 marked exhibit 68, which had not been prefiled and
9 which we had not seen.

10 And we objected to its being allowed
11 into evidence. Staff's objection was overruled.
12 But the Committee was good enough to allow us to
13 leave the record open to allow staff to, at a
14 later date, give its comments on that document.

15 And so today we are prepared to do so.
16 We've had a chance to read the document now. And
17 Mr. Kanemoto, you've allowed him to give these
18 comments telephonically, and he is on the line and
19 can do that now.

20 He will be referring to that exhibit and
21 a diagram in that exhibit that Mr. Kessler has
22 just been distributing. It's a diagram numbered
23 3-16.5. It doesn't need to be marked as a
24 separate exhibit because it is, in fact, part of
25 the exhibit that we are discussing that the

1 applicant ha already filed. We are distributing
2 it simply so you'll have something to refer to
3 when he gives his remarks.

4 HEARING OFFICER KRAMER: What was the
5 exhibit number, again?

6 MR. RATLIFF: I believe it's exhibit 68.
7 It's the Desert Express draft EIS.

8 HEARING OFFICER KRAMER: That is
9 consistent with the tentative exhibit list. Thank
10 you.

11 MR. RATLIFF: Should I go ahead with Mr.
12 Kanemoto, then?

13 HEARING OFFICER KRAMER: Please. And
14 Mr. Kanemoto was sworn previously, so he continues
15 to be under oath.

16 Whereupon,

17 WILLIAM KANEMOTO
18 was recalled as a witness herein, and having been
19 previously duly sworn, was examined and testified
20 further as follows:

21 DIRECT EXAMINATION

22 BY MR. RATLIFF:

23 Q Mr. Kanemoto, are you on the line?

24 A Yes, can you hear me?

25 Q Yes, we can. But as a fellow low

1 talker, I advise you to speak very loudly.

2 A Okay.

3 Q You will recall at the last hearing we
4 were provided an exhibit, exhibit 68, which is the
5 draft EIS for the Desert Express --

6 A Right.

7 Q -- high-speed passenger train. Had you
8 seen that document prior to the hearing?

9 A No.

10 Q Have you had an opportunity to acquaint
11 yourself with it since that time?

12 A Yes, I read portions that we were
13 provided with at the hearing, (inaudible) the area
14 around the Ivanpah project.

15 Q We're having a little difficulty hearing
16 you.

17 A I'll try to speak louder. Yes, I was
18 able to read the portions that were provided at
19 the last hearing, and focused on the portions that
20 were relevant to the area around the Ivanpah
21 project.

22 Q Okay. I would like you to provide us
23 with your views on that document now. Please
24 speak very deliberately and clearly, because
25 there's a little bit of crackle in the line when

1 you speak, so.

2 A Oh, okay. Well, the conclusion on the
3 cumulative impacts in the Desert Express EIS
4 states that, quote, "wind towers, solar panels
5 cumulatively being introduced in the industrial
6 visual character to the open desert results in a
7 rapid change to visual character to the
8 (inaudible) first location.

9 The crux of the argument for the
10 conclusion that cumulative visual impacts would
11 not (inaudible) that visual (inaudible) for the
12 area of analysis --

13 Q We aren't understanding you, Bill.
14 You're going to have to somehow speak in a way
15 that we can hear you better.

16 A Is this better?

17 Q It's much better.

18 A Oh, okay, I'll use this. The crux of
19 the argument for the conclusion that cumulative
20 visual impacts would not be substantial is that
21 visual change for the area of analysis would be
22 flow, maintaining the existing trend of visual
23 change. And that, quote, "cumulative visual
24 impacts would be isolated to the viewshed in the
25 related project site."

1 That statement may or may not be true in
2 the context of the overall Desert Express project,
3 but it is certainly not accurate in the context of
4 the Ivanpah project viewshed.

5 DEIS figure 3-16.5 depicts the
6 footprints of the Ivanpah, First Solar and Next
7 Life Solar projects, as well as the Port of Entry
8 and Desert Express project essentially with the
9 same cumulative scenario that staff analyzed in
10 the FSA.

11 Can you hear okay?

12 MR. RATLIFF: Yes, we can. Please
13 proceed, but slowly.

14 MR. KANEMOTO: Okay. In fact, the First
15 Solar photovoltaic project with a footprint
16 potentially larger in size than the total Ivanpah
17 footprint, directly abuts Ivanpah 2, and would
18 appear in the foreground of view to Ivanpah 2 and
19 3 from I-15.

20 So the Next Life solar-thermal project
21 would have a similarly large scale as the other
22 two. And would be visible at a similar distance
23 from I-15 as Ivanpah 3.

24 The combined footprint of the three
25 projects would be three times that of Ivanpah

1 alone, all visible at similar distances from I-15
2 and Desert Express passengers, and from the same
3 segment of I-15 and the Desert Express, that is
4 within the northern Ivanpah Valley.

5 Similarly, the Port of Entry project
6 would appear in the immediate foreground of views
7 to Ivanpah 1 from I-15 and the Desert Express.

8 Thus these projects could hardly be
9 described as visually isolated. Further, the
10 notion that these developments would resemble the
11 existing trend of past visual change significantly
12 understates the cumulative impact of these
13 changes, at least within the Ivanpah Valley, which
14 would be dramatic, adding roughly 15 square miles
15 of development visible within the same immediate
16 viewshed. That degree of development obviously
17 has no precedent in the area in the past.

18 Therefore, in the context of the Ivanpah
19 Valley viewshed a conclusion that foreseeable
20 projects would have no cumulative visual effect to
21 dispersed locations is demonstrably untrue, and
22 not applicable to the Ivanpah project, per se.

23 On a regional cumulative basis, this
24 statement would also appear inaccurate, given the
25 significant number of foreseeable renewable

1 projects proposed within the I-15 corridor alone,
2 as well as the California desert, as a whole, as
3 presented in the FSA cumulative impact analysis.

4 Finally, there is much in the DEIS
5 cumulative analysis that supportive of staff's
6 conclusion that impact of the Ivanpah project
7 would be significant on both the project and
8 cumulative basis.

9 For example, table 3.15-2 of the EIS
10 classifies the Ivanpah Valley as VRM class 2,
11 which is actually higher than the VR inventory
12 class assigned by BLM, and which connotes
13 relatively high visual quality.

14 The DEIS also points out that the Desert
15 Express would carry 4 to 5 million passengers per
16 year through the Ivanpah Valley. These passengers
17 are characterized by the EIS as, quote, "a more
18 sensitive viewer group than motorists, as train
19 passengers would not need to focus on driving, but
20 could instead concentrate on views from the
21 window."

22 The DEIS then states that, quote, "views
23 from the train would be especially scenic in
24 segment four, that is the Ivanpah Valley, where
25 the alignment travels through the preserve or the

1 Clark Mountains."

2 Plus, the DEIS acknowledges that the
3 cumulative scenario, including the Desert Express,
4 would, in effect, greatly increase the visual
5 sensitivity of this travel corridor.

6 Those are staff's main comments on the
7 EIS cumulative analysis.

8 BY MR. RATLIFF:

9 Q So, does that conclude your observations
10 on that document?

11 A Yes. I could add that just in general I
12 guess I would certainly disagree with the EIS
13 conclusion in relation to the Ivanpah project and
14 its viewshed, in particular.

15 A conclusion that cumulative visual
16 impacts in the Ivanpah Valley would not be
17 substantial based on visual isolation of the
18 project or on a slow rate of change resembling
19 existing trends is demonstrably inconsistent with
20 the evidence presented in the EIS, itself, when
21 applied specifically to the Ivanpah Valley.

22 As staff concluded in the FSA, the
23 project alone would represent a significant direct
24 impact. The potential cumulative impacts in the
25 valley, however, are far greater than the project

1 alone.

2 I could add that I also disagree with
3 the EIS' conclusion, as it would apply to the
4 foreseeable regional renewable projects addressed
5 in the FSA. As stated in the FSA staff believes
6 that the potential visual effect of 66 solar
7 applications and 53 wind applications on the
8 California desert is potentially degrade.

9 To characterize the development in a
10 short period of an area equivalent to several
11 small cities within a largely undeveloped desert
12 as slow or similar to past trends, is, in my view,
13 simply not accurate.

14 In fact, rarely in my experience have I
15 encountered a clearer case of finding a cumulative
16 visual effect either on local valley viewshed or
17 under a broader regional landscape. The potential
18 cumulative effect on visual quality in both cases
19 can only be described as potentially profound.

20 That's all I have to say, really.

21 MR. RATLIFF: Thank you, Mr. Kanemoto.

22 EXAMINATION

23 HEARING OFFICER KRAMER: Mr. Kanemoto,
24 we have one question. In the exhibit you passed
25 out, what is the blue line that goes through a

1 couple of the projects, including the Ivanpah
2 project?

3 MR. KANEMOTO: My understanding is that
4 that was one of the alternatives for the Desert
5 Express alignment under consideration. I believe
6 that's been dropped, but I don't know.

7 HEARING OFFICER KRAMER: Okay, and which
8 is the proposed alignment? Is that the yellow
9 line?

10 MR. KANEMOTO: Yes, that's my
11 understanding, the yellow line is the one that's
12 currently under consideration.

13 HEARING OFFICER KRAMER: And it seems to
14 generally parallel closely to the I-15, is that
15 fair?

16 MR. KANEMOTO: That's right. Yes,
17 exactly. It parallels, it's right on the shoulder
18 of I-15.

19 HEARING OFFICER KRAMER: Okay, thank you
20 for clarifying that.

21 MS. BELENKY: Excuse me, I'm sorry, but
22 I believe that the yellow line is I-15. And my
23 understanding is the train cannot go along I-15.
24 And there's another alternative that sweeps north
25 around the Ivanpah project.

1 So that isn't really a major issue here,
2 but I don't want to leave you with the impression
3 that the train would go along I-15. My
4 understanding is it cannot.

5 HEARING OFFICER KRAMER: Oh, okay, thank
6 you. Does any party wish to cross-examine Mr.
7 Kanemoto? We'll give the applicant first crack,
8 if they'd like it.

9 MR. HARRIS: Mindful of your request to
10 move things along, we don't have any questions on
11 this particular exhibit. I do have a question on
12 exhibit 308 that staff filed in the rebuttal
13 testimony. And I can either do that no, or hold
14 it until you've finished this particular exhibits,
15 whatever you prefer, Mr. Kramer.

16 HEARING OFFICER KRAMER: Would the
17 question be of Mr. Kanemoto?

18 MR. HARRIS: I believe it would be, yes.

19 MR. RATLIFF: I think that's outside the
20 scope of the testimony. We left this open for a
21 discussion of this particular exhibit. So I
22 object to it on that basis.

23 MR. HARRIS: I am asking to ask him two
24 questions, three questions on exhibit 308, which
25 was filed on January 4th by the staff. It's just

1 clarifying questions and it will take less than
2 five minutes, I assure you.

3 HEARING OFFICER KRAMER: Well, I think
4 given that it was filed and was offered -- presume
5 you're going to offer it into evidence --

6 MR. RATLIFF: Exhibit 308, yes. And it
7 was admitted into evidence and the applicant has
8 already had an opportunity, and taken it, to
9 cross-examine the witness on it. So that is
10 entirely outside the scope of today's testimony.
11 So we object to any further questions on that.

12 MR. HARRIS: Well, to be clear, what 308
13 is is not what was admitted into evidence. 308
14 includes a third page that is the application
15 status to BLM as of March 2009. And that was not
16 part of the original filing for this. This
17 exhibit has changed since the hearing.

18 MR. RATLIFF: I'm sorry, I didn't
19 understand that. Then I withdraw my objection.

20 HEARING OFFICER KRAMER: Then I think
21 now is as good a time as any to ask your
22 questions.

23 MR. HARRIS: Okay, and I'll be quick.
24 Dick, I'm sorry, I should have talked to you
25 beforehand.

1 MR. RATLIFF: Yeah, I apologize for not
2 understanding which exhibit you were talking
3 about.

4 MR. HARRIS: I'm often misunderstood,
5 so.

6 MR. KANEMOTO: Could you clarify for me
7 what exhibit 308 is?

8 MR. HARRIS: 308 is -- was staff's filed
9 -- Dick, do you want to -- or should I handle it?
10 I don't care.

11 MR. RATLIFF: Yes, 308 was -- at the
12 last hearing Mr. Kanemoto included a slide which,
13 I think, Mr. Harris aptly referred to as the
14 measles slide. It was in his visual exhibit. It
15 was a depiction from, I think it was an adaptation
16 of a BLM map which indicated the number of
17 renewable projects in the Mojave Desert. And it
18 indicated them with a red dot.

19 And Mr. Harris, after the hearing,
20 subsequently requested that staff re-do the map
21 indicating the names of the projects, or
22 identifying the projects that were depicted on the
23 map.

24 So what -- I think we agreed to do that
25 at the hearing, or at the prehearing conference.

1 And we have done so now. And that is exhibit 308.
2 And Mr. Harris is correct in that I don't believe
3 that exhibit has actually been entered into
4 evidence yet.

5 That exhibit was prepared by Susan Lee,
6 by the way, to depict the latest information, and
7 to identify all the desert projects.

8 MR. KANEMOTO: Okay.

9 HEARING OFFICER KRAMER: Go ahead, Mr.
10 Harris.

11 MR. HARRIS: Okay, maybe I got one
12 question then.

13 CROSS-EXAMINATION

14 BY MR. HARRIS:

15 Q On the exhibit there's a page that's new
16 that is entitled, application status to BLM as of
17 March 2009.

18 And my question was going to be is that
19 date correct? Is the status of these various
20 projects that is shown, to the best of your
21 knowledge, the status as of March of 2009?

22 A To the best of my knowledge, it is. But
23 I can't speak with certainty about that.

24 Q Do you know whether any of these
25 projects that are listed here have had a notice of

1 intent to prepare an environmental impact
2 statement published in the Federal Register to
3 date?

4 A I don't know that.

5 MR. HARRIS: Okay, that's the entirety
6 of my questions. Thank you.

7 HEARING OFFICER KRAMER: Any other party
8 have any questions for this witness? Hearing
9 none, any redirect, Mr. Ratliff?

10 MR. RATLIFF: No.

11 HEARING OFFICER KRAMER: Okay. Mr.
12 Kanemoto, then you are excused. Thank you. You
13 may want to stick around and listen to some other
14 testimony.

15 MR. KANEMOTO: Thank you.

16 HEARING OFFICER KRAMER: And that brings
17 us then to the possible testimony from Basin and
18 Range Watch. I know at the prehearing conference
19 you were not able to call in or be here, so the
20 parties recalled that you had filed some
21 testimony, and may want to present it today. So
22 we're offering you that opportunity at this time.

23 MR. HARRIS: Before we leave rebuttal,
24 or visual, Mr. Priestley did file some rebuttal
25 testimony on March -- not March -- January 4th. I

1 was going to just try to move that testimony into
2 the record, unless any party wanted to cross-
3 examine Mr. Priestley, again, it should be Dr.
4 Priestley.

5 HEARING OFFICER KRAMER: Okay. How
6 about if we wait until the end of the testimony,
7 then we'll move everything in together? The end
8 of --

9 MR. RATLIFF: The end of --

10 HEARING OFFICER KRAMER: -- the visual
11 testimony today.

12 MR. RATLIFF: Are we at the end of the
13 visual testimony?

14 HEARING OFFICER KRAMER: Basin and Range
15 Watch, I believe, has --

16 MR. RATLIFF: Oh, okay.

17 HEARING OFFICER KRAMER: They were about
18 to answer my question whether they wished to
19 present testimony. And I was seeing body language
20 that suggested, yes, they did.

21 MS. CUNNINGHAM: Yeah, I just had like a
22 brief oral testimony that I wanted to give.

23 HEARING OFFICER KRAMER: Okay.

24 MS. CUNNINGHAM: Should I sit there?

25 HEARING OFFICER KRAMER: No, you don't

1 need to. And were you identified as a witness in
2 your --

3 MS. CUNNINGHAM: Yeah, I emailed you
4 that I had wanted to give an oral testimony.

5 HEARING OFFICER KRAMER: Okay.

6 MS. CUNNINGHAM: And I wasn't sure if
7 there was time.

8 HEARING OFFICER KRAMER: And you also
9 filed documents, correct?

10 MS. CUNNINGHAM: Yeah, exhibit 800.

11 HEARING OFFICER KRAMER: Okay.

12 MS. CUNNINGHAM: Photographs.

13 HEARING OFFICER KRAMER: Does anyone
14 object to Ms. Cunningham testifying? She wasn't
15 -- for whatever reason she escaped the witness
16 list that I prepared.

17 MR. HARRIS: I assume we'll be able to
18 ask some questions at the end of her testimony.

19 HEARING OFFICER KRAMER: Of course.

20 MR. HARRIS: Yeah, we have no objection.

21 HEARING OFFICER KRAMER: Okay, go ahead.
22 And you can testify from where you are. You
23 probably have not been sworn as a witness, though,
24 so we'll need to do that. And while we are
25 swearing you, if there is anyone else in the

1 audience who will be testifying today or later
2 this week, who was not previously sworn at our
3 December 14 hearing, if you would also stand and
4 raise your right hand and be sworn by the court
5 reporter.

6 Whereupon,

7 LAURA CUNNINGHAM and

8 ALL FURTHER PROSPECTIVE WITNESSES

9 were called as witnesses herein, and after first
10 having been duly sworn, were examined and
11 testified as follows:

12 THE REPORTER: Consider yourselves
13 sworn. Thank you and be seated.

14 HEARING OFFICER KRAMER: Ms. Cunningham,
15 go ahead.

16 DIRECT TESTIMONY

17 MS. CUNNINGHAM: I just have two quick
18 points that I wanted to add to my photographic
19 database. And the first was photographs 80 and 81
20 were pictures I took from the Umberci Mine, which
21 I think is KOP-9.

22 And I just wanted to affirm that in my
23 opinion the project would definitely be visible
24 from that historic mine. I think you can see the
25 heliostat field and the towers from it in the

1 distance.

2 And I think it would definitely give an
3 industrial character to that area.

4 And then a second point I had was, and
5 I'm not speaking for the National Park Service,
6 but I used to work as an interpretative ranger at
7 Death Valley National Park. And on a daily basis
8 people would ask me where do I go get a view;
9 where do I drive; where do I hike? I want to get
10 a view of from a peak, of a sunset or go to a
11 place to get a view.

12 So I think that's actually an important
13 point for the cumulative impacts of all these
14 parks, is views. Views are really important.

15 And that's all. Thank you.

16 HEARING OFFICER KRAMER: In that area
17 did you, in the Ivanpah Valley Basin, if somebody
18 asked you that question, would you point them to a
19 particular peak in that area?

20 MS. CUNNINGHAM: I would have told them
21 to go to Clark Mountain. But that's a really
22 technical peak to get up to. So some of the
23 lesser peaks in the wildernesses, or foothills of
24 the Clark Mountains, I would have told them to go
25 there, yeah.

1 HEARING OFFICER KRAMER: Thank you. Mr.
2 Harris, did you have any questions?

3 MR. HARRIS: Just a couple foundational
4 questions.

5 CROSS-EXAMINATION

6 BY MR. HARRIS:

7 Q Your degree is in paleontology, is that
8 correct?

9 A Correct.

10 Q And do you have a degree in biology?

11 A No.

12 Q And you've listed yourself as the lead
13 biologist on the Death Valley study. Is that a
14 title that you were given for the project or how
15 did that title come about?

16 A Yeah, that was the Timbisha-Shoshone
17 Tribe; they hired me to be the lead biologist for
18 them.

19 MR. HARRIS: No further questions.

20 Thank you.

21 HEARING OFFICER KRAMER: Any other party
22 have any questions for this witness?

23 MS. BELENKY: I just have one clarifying
24 question.

25 HEARING OFFICER KRAMER: Go ahead.

1 CROSS-EXAMINATION

2 BY MS. BELENKY:

3 Q You don't have a degree in biology, but
4 could you explain a little bit about your
5 background working as a biologist in the field?

6 A Yeah, I have probably like ten years of
7 experience working as a biologist, actually
8 contract biologist for desert tortoise work. And
9 I have done clearance surveys that will probably
10 be very similar to what will be done at Ivanpah if
11 the project is approved.

12 So I've done contract biology, and also
13 biology for university studies, university
14 professor, research studies.

15 HEARING OFFICER KRAMER: What do you
16 mean by a clearance survey?

17 MS. CUNNINGHAM: That's when all the
18 tortoises are dug out of the burrows and removed
19 from the site. They're cleared.

20 HEARING OFFICER KRAMER: Thank you.

21 MR. HARRIS: Mr. Kramer, may I have a
22 follow-up based upon that line of cross?

23 HEARING OFFICER KRAMER: Certainly.

24 //

25 //

1 Hearing none, that's admitted into
2 evidence.

3 Mr. Ratliff --

4 MR. RATLIFF: Exhibit 308, we would move
5 that into evidence.

6 HEARING OFFICER KRAMER: Okay, any
7 objection to admitting 308? Seeing none, that is
8 admitted.

9 MR. HARRIS: Excuse me. Was exhibit 68
10 previously admitted? The exhibit sheet we have
11 doesn't show any indication of anything being
12 admitted.

13 HEARING OFFICER KRAMER: I frankly can't
14 recall, and we don't yet have a transcript for
15 some reason, at least in my hands, from the
16 December 14th. So any objection to admitting
17 exhibit 68?

18 Seeing none, it's admitted today if it
19 was not earlier.

20 MS. CUNNINGHAM: Could I move exhibit
21 800?

22 HEARING OFFICER KRAMER: Any objection
23 from another party? Seeing none, exhibit 800 is
24 accepted.

25 And for the parties, there will be

1 another opportunity when we get to the end of the
2 hearings I'll have an updated list. And we will
3 -- it's not our intention to accidentally leave a
4 document out that somebody needed to be admitted.

5 So what we will probably do at the end
6 is have a request to admit everything that was not
7 admitted, and for people at that time to identify
8 any objections that they may have to one of those
9 documents.

10 So we'll certainly accept objections and
11 rule upon them. But absent an objection it's
12 going to be our goal to make sure that everything
13 is a formal part of the record.

14 We're not going to try to play
15 accounting got'cha with anyone as far as
16 accidentally forgetting to ask that a document be
17 admitted.

18 So that concludes visual resources.
19 We'll discuss this again as the hearings close,
20 but I'll just note that one issue that the
21 Committee is certainly interested in hearing the
22 parties discuss in their briefs will be this
23 question of the scope of the cumulative visual
24 impact analysis.

25 Should it just be for the Ivanpah Basin,

1 or should it be for this wider area, as staff has
2 discussed it? But just make a note of that for
3 your to-do list for your briefs.

4 We now move on --

5 MR. RATLIFF: Mr. Kramer, just to make
6 sure you understand, staff did it for both.

7 HEARING OFFICER KRAMER: I understand.

8 MR. RATLIFF: Okay.

9 HEARING OFFICER KRAMER: But I believe I
10 heard the applicant suggest that going beyond the
11 basin was going too far, so we want the parties to
12 address that.

13 The next topic is traffic and -- no,
14 project description. As you recall, we had a bit
15 of opening testimony from Mr. Woolard at the
16 December 14th hearing. But recognized that that
17 was for the purpose of setting a context for the
18 discussions that day, and was not meant to be the
19 end of the testimony.

20 So, as I understand it, the parties may
21 have further testimony they wish to offer on that
22 topic. And we will first open that up to the
23 applicant to present any testimony it wishes to
24 present.

25 MR. HARRIS: Thank you. I guess I'd ask

1 members of my panel to come forward and have a
2 seat.

3 HEARING OFFICER KRAMER: Okay. And the
4 panels will be sitting at this table here in front
5 of us. If we need -- yeah, be very careful of all
6 the cables. I think we're insured, but we don't
7 really want to find out how well.

8 Okay, well, we can't afford for you to
9 trip, I'm informed.

10 (Laughter.)

11 PRESIDING MEMBER BYRON: Gentlemen, just
12 so you'll know, the long microphones are the ones
13 that allow us to hear you in the room and for
14 everyone on the phones to hear you. The small
15 microphones, you can just leave them alone,
16 they're there for the court reporter to make sure
17 he picks it up.

18 HEARING OFFICER KRAMER: Mr. Harris, if
19 you wanted to come up, I guess you could sit next
20 to Mr. Kessler, if you wanted to have more eye
21 contact with your witnesses. Or for--

22 MR. HARRIS: I think I may take you up
23 on that request, so --

24 HEARING OFFICER KRAMER: Or for that
25 matter, let me ask the Committee, do you mind if

1 they have their backs to us? No.

2 Then why don't they just turn around to
3 the other side of the table and, of course, body
4 language is a big part of our assessment of --

5 (Laughter.)

6 HEARING OFFICER KRAMER: -- credibility.

7 THE REPORTER: Mr. Kramer, I'm here so I
8 can see their faces, so they can either be --

9 (Parties speaking simultaneously.)

10 HEARING OFFICER KRAMER: Oh, sorry.

11 THE REPORTER: Then I know who is
12 speaking.

13 HEARING OFFICER KRAMER: The court
14 reporter needs --

15 (Pause.)

16 MR. HARRIS: Just in case I run out of
17 something I'll be looking to Ms. Pottenger for
18 help, so. It's going to be relatively easy, I
19 think, on this issue. We're just making our
20 witnesses available for cross-examination. We
21 provided our direct testimony before, so the panel
22 has been sworn. And I'm going to ask one member
23 of the panel to answer on behalf of the panel, as
24 opposed to having all four answer. So, Mr. De
25 Young --

1 HEARING OFFICER KRAMER: Could you
2 introduce them first for us.

3 MR. HARRIS: Actually, I'll ask them all
4 to state their name for the record and spell their
5 names for the court reporter, please.

6 MR. DE YOUNG: Steve De Young, S-t-e-v-e,
7 last name is D-e, capital Y-o-u-n-g.

8 MR. REAGAN: Thomas Reagan, T-h-o-m-a-s
9 R-e-a-g-a-n.

10 MR. CARRIER: John Carrier, J-o-h-n
11 C-a-r-r-i-e-r.

12 MR. STEWART: Todd Stewart, T-o-d-d
13 S-t-e-w-a-r-t.

14 MR. HARRIS: I'll ask Mr. De Young to
15 answer on behalf of the panel these introductory
16 questions.

17 DIRECT EXAMINATION

18 BY MR. HARRIS:

19 Q So, Mr. De Young, what subject matter
20 testimony are you and the panel here to sponsor
21 today?

22 MR. DE YOUNG: Project description.

23 MR. HARRIS: Are the documents you're
24 sponsoring part of your testimony previously filed
25 in this proceeding?

1 MR. DE YOUNG: Yes.

2 MR. HARRIS: And, Mr. Kramer, those are
3 the documents identified in section 1C, as in
4 Charley, prior filings of the applicant's opening
5 testimony.

6 Do need me to read each one of those, or
7 is a reference to 1C sufficient for the purposes?

8 HEARING OFFICER KRAMER: At the end
9 you'll be identifying them by exhibit number to
10 admit them, so --

11 MR. HARRIS: Yeah.

12 HEARING OFFICER KRAMER: -- I think we
13 can wait till then.

14 MR. HARRIS: Okay, thank you.

15 Are there any changes, clarifications or
16 corrections to your testimony?

17 MR. DE YOUNG: No.

18 MR. HARRIS: And, again, on behalf of
19 the panel were the documents prepared either by
20 you or at your direction?

21 MR. DE YOUNG: Yes.

22 MR. HARRIS: And are the facts stated
23 therein true to the best of your knowledge?

24 MR. DE YOUNG: Yes.

25 MR. HARRIS: Are the opinions stated

1 therein your own?

2 MR. DE YOUNG: Yes.

3 MR. HARRIS: And do you adopt this as
4 your testimony for the proceeding?

5 MR. DE YOUNG: Yes, we do.

6 MR. HARRIS: The panel is available for
7 cross-examination.

8 HEARING OFFICER KRAMER: Does any party
9 wish to cross-examine these witnesses?

10 MR. RATLIFF: Staff does.

11 HEARING OFFICER KRAMER: Okay, staff, go
12 ahead.

13 MR. RATLIFF: Talking to your backs
14 here, I'll make you turn your necks around here;
15 have bad backs.

16 CROSS-EXAMINATION

17 BY MR. RATLIFF:

18 Q Good morning, gentlemen. The question I
19 wanted to ask you, and I'm not sure to whom to
20 address it, but in the original application the
21 project is described as a 400 megawatt project.

22 Subsequently in our discussions we
23 understand it to be, in fact, a project which will
24 produce more than 400 megawatts.

25 And I was hoping you could describe to

1 us why that is, why the generation has, in fact,
2 increased since the application was filed.

3 MR. DE YOUNG: I'm going to ask Mr.
4 Stewart to respond to that one.

5 MR. STEWART: The 400 megawatts was a
6 nominal figure and represented an approximate
7 number of megawatts. Since the AFC was originally
8 filed in 2007, the work has evolved such that a
9 more accurate figure of 440 megawatts was arrived
10 at as what the true generation could be.

11 MR. RATLIFF: And is that based on the
12 number of heliostats that you think you can have,
13 and the number of mirrors that you will have on
14 each heliostat?

15 MR. STEWART: Yes, it is.

16 MR. RATLIFF: Okay. So as you develop
17 the project you've found that you could actually
18 generate more output, more megawatt output than
19 you had estimated when you began, is that correct?

20 MR. STEWART: That is correct.

21 MR. RATLIFF: Thank you.

22 HEARING OFFICER KRAMER: That's your
23 only question?

24 MR. RATLIFF: Yes.

25 HEARING OFFICER KRAMER: I'll ask a

1 follow-up then. Is the limiting factor in the
2 output of the project the heliostats, or at some
3 point do you reach capacity on the boilers and the
4 turbines?

5 MR. STEWART: The limiting factor for
6 the generation is actually going -- or the
7 capacity of the generation is actually the
8 turbine.

9 HEARING OFFICER KRAMER: So you must
10 have hit the limit at this point?

11 MR. STEWART: Yes.

12 HEARING OFFICER KRAMER: And how's that
13 extra 40 megawatts going to be distributed across
14 the three phases?

15 MR. STEWART: At this point it's
16 considered to be 110 for Ivanpah 1, 110 for
17 Ivanpah 2, and 220 for Ivanpah 3.

18 HEARING OFFICER KRAMER: Thank you. Any
19 questions from any of the other parties? Ms.
20 Belenky.

21 MS. BELENKY: Yes, thank you. I have a
22 series of questions and I'll try to make them
23 fairly quick. And I'm not exactly sure which of
24 you is supposed to answer which, but.

25 //

1 CROSS-EXAMINATION

2 BY MS. BELENKY:

3 Q First of all I want to say we submitted
4 into evidence just some basic graphs showing --
5 basic depictions showing some shadows on the site.
6 And my question is not necessarily about the
7 shadows, but about that the effect of shadows or
8 cloud cover is on the project site. Just so I
9 understand a little more about the model.

10 Did you calculate the amount of time
11 that shadows may fall on the site when you chose
12 this site, or when you were doing the calculations
13 of the output? I don't know who to ask.

14 MR. STEWART: I guess that's me, again.
15 Our engineering team in Jerusalem did an analysis
16 of the number of sunny days at the Ivanpah site,
17 and did calculate the total amount of generation
18 that would be available at that site.

19 MS. BELENKY: And do you know the amount
20 that would be lost due to cloud cover on the site?
21 I didn't see it anywhere in the documents, what
22 that calculation is. So I'm asking you, saying
23 that it was calculated, but I didn't see it in the
24 documents.

25 MR. STEWART: I don't have that figure

1 right in front of me, I'm sorry.

2 MS. BELENKY: Okay. And, as well, for
3 any shadowing. You believe there was a
4 calculation done or not done?

5 MR. STEWART: I believe there was, yes.

6 MS. BELENKY: Okay. But again it's not
7 in the documents that I read, is that correct?

8 MR. STEWART: If you say so.

9 MS. BELENKY: Do you believe that it is
10 in the documents?

11 MR. STEWART: I don't know.

12 MR. DE YOUNG: I think that any of that
13 analysis would have been internal to the
14 engineering team, and probably would have been a
15 better question to ask of Mr. Gilon when he was
16 here from Jerusalem.

17 MS. BELENKY: Thank you for your
18 comment. However, we were doing the project
19 description on the first day of testimony just as
20 a background. And today is the day that we are
21 going through the issues.

22 And if you believe that someone else
23 could answer them I would be happy to take that
24 answer later in the week, if that's possible.
25 Thank you.

1 Did you look at our exhibits that were
2 filed with the testimony of Curtis Bradley
3 regarding the shadows on the site?

4 MR. HARRIS: Can you clarify which
5 exhibits, Lisa? Are you talking about the black-
6 and-white photos that were filed?

7 MS. BELENKY: That's right. They're
8 depictions, they're not actual photos, but -- did
9 any of --

10 MR. DE YOUNG: Yes, I looked at them.

11 MS. BELENKY: And so my question is,
12 again, a technical one. If a shadow falls on a
13 part of the array does the rest of the array
14 continue to function?

15 MR. STEWART: The answer to that is yes.

16 MS. BELENKY: Yes. And so if there's
17 shadow, or even from a passing cloud, on part of
18 the array it doesn't mean that the whole solar
19 part of the plant doesn't have to shut down, is
20 that correct?

21 MR. STEWART: That's correct.

22 MS. BELENKY: Okay, thank you. So, now
23 I would like to just ask a few questions about the
24 use of the gas boilers.

25 As I understand it from the FSA the gas

1 boilers are to be used in the morning for startup
2 and on cloudy days, is that correct?

3 MR. STEWART: That's correct.

4 MS. BELENKY: So cloudy days refers to
5 some overall cloud cover. Is there a certain
6 percent of cloud cover that would then trigger the
7 use of the boilers?

8 MR. STEWART: The boilers are primarily
9 used in the early morning for startup. Our permit
10 does not allow us to utilize the boiler
11 continuously for a cloudy day, but merely for the
12 occasional cloud, passing cloud.

13 MS. BELENKY: I'd just like to clarify
14 your answer. When I asked before you said if
15 there was a passing cloud you didn't need to turn
16 on the boiler, or you could continue to operate
17 with solar.

18 So maybe we could a little bit explore
19 that. If there's passing clouds, what happens?

20 MR. STEWART: Generation would decrease.

21 MS. BELENKY: And is there something
22 that would trigger turning on the gas boiler at
23 that point?

24 MR. STEWART: Decreased generation.

25 MS. BELENKY: But a certain percentage

1 or there's some --

2 MR. STEWART: There are many factors
3 that would go into that. And it would have to do
4 with demand on the system and other factors that
5 are beyond the operations of the facility.

6 MS. BELENKY: Okay, thank you. So, you
7 just said that the boilers are to be used in the
8 morning for startup. And in the conditions they
9 actually -- the project description states that
10 the boilers will be used for up to four hours a
11 day for an average of no more than one hour per
12 day, is that correct?

13 MR. STEWART: I believe it's up to four
14 hours per day is the figure that I recall.

15 MS. BELENKY: We can open to the project
16 description, but it actually does say for an
17 average of one hour per day.

18 MR. STEWART: Okay.

19 MR. HARRIS: Can you point to a
20 reference in the project description?

21 MS. BELENKY: Yeah, I -- pull out --
22 (Pause.)

23 MR. HARRIS: And, Lisa, while you're
24 looking, are you looking at the FSA or are you
25 looking at one of the applicant's documents?

1 MS. BELENKY: I'm looking at the FSA.

2 MR. HARRIS: FSA, okay.

3 MS. BELENKY: See if I can --

4 MR. HARRIS: The staff testimony.

5 MS. BELENKY: -- find it. Well, it's
6 the project description we're working from.

7 Here it is. Okay, so on page 3-8 of the
8 FSA --

9 MR. SPEAKER: This is the AFC.

10 MS. BELENKY: Well, --

11 MR. HARRIS: Give us a minute to get the
12 document, Lisa. Sorry.

13 MS. BELENKY: If you disagree with it --

14 HEARING OFFICER KRAMER: I think she's
15 at the right place.

16 MR. HARRIS: Oh, no, just my witnesses
17 need a copy. And I guess I'd point out the reason
18 they need a copy is that this is the staff's
19 testimony and not the applicant's testimony.

20 MS. SMITH: While people are digging
21 around, Gloria Smith from Sierra Club, I would
22 just point out that the intervenors view, not
23 staff's testimony, but we view that as a draft
24 CEQA document. So we view that as fully
25 appropriate to cite to throughout these

1 proceedings as a CEQA document rather than just
2 one party's testimony.

3 MR. HARRIS: Well, that's actually not
4 what the regulations provide. The FSA is the
5 staff's testimony. So I don't mind them looking
6 at it, but if it goes too far afield I'm going to
7 object.

8 HEARING OFFICER KRAMER: Well, I think
9 they would be able to ask these witnesses whether
10 or not they agree with something that another
11 party has said, at a minimum.

12 MR. HARRIS: Absolutely. And there's a
13 good chance that whatever's in the FSA they are
14 side generated. So that's why I'm not raising too
15 much of an objection.

16 My singular point was to point out the
17 regulations and the statute provide that the FSA
18 is the staff's testimony, it's not a CEQA
19 document.

20 MR. STEWART: Yes, Ms. Belenky, I see
21 the passage that you're referring to.

22 MS. BELENKY: Thank you. I just have a
23 few more questions. One is in the FSA there is
24 provided an estimate of the actual output capacity
25 of the plant, which is 28 percent. And I can find

1 a cite for you; and I'm not sure where in your
2 testimony it discusses that issue. I'm sorry, I
3 have been mostly looking at the staff -- the FSA.

4 But do you agree with that figure of 28
5 percent?

6 MR. HARRIS: Can you restate the
7 question? Is that 28 percent capacity factor? Or
8 28 percent what?

9 MS. BELENKY: I believe it uses the term
10 28 percent capacity.

11 MR. HARRIS: Okay, thank you.

12 MR. STEWART: Yes.

13 MS. BELENKY: And so you do agree with
14 that. Okay, good. If you did not have the gas
15 boilers at all at the plant, what would be the
16 capacity for the plant?

17 MR. STEWART: Well, --

18 MR. HARRIS: I'm actually going to
19 object on the basis that it's going to require him
20 to speculate about something that he has not
21 prepared as testimony.

22 MS. BELENKY: Thank you. Would it be
23 possible to calculate what the capacity would be
24 without the gas boilers?

25 MR. STEWART: I believe it is possible.

1 MS. BELENKY: And have you done that, or
2 to your knowledge has anyone among the applicant's
3 group done that calculation?

4 MR. STEWART: To my knowledge, I don't
5 know.

6 MS. BELENKY: Okay. And do you know
7 whether the 28 percent capacity factor is based on
8 four hours per day average use of the boilers, or
9 on one hour per day average use of the boilers?

10 MR. STEWART: That -- I don't know the
11 answer to that question.

12 MS. BELENKY: Do you believe -- do you
13 think that you could find that? Do you know who
14 did the 28 percent capacity factor -- capacity
15 calculation?

16 MR. STEWART: That would have been our
17 team of engineers in Jerusalem.

18 MS. BELENKY: So would it be possible to
19 find out from them what number of hours they were
20 estimating for the boiler use in that calculation?

21 MR. STEWART: I believe so.

22 MS. BELENKY: Thank you. Okay. Now, I
23 have a couple of questions that relate to the
24 water features on the project site. And I'm not
25 sure which of you would know about these.

1 In reading the document it states that
2 the project includes two holding basins at each of
3 the three power blocks. And that the holding
4 basins are 40 feet by 60 feet by six feet deep, is
5 that correct?

6 MR. STEWART: Yes.

7 MS. BELENKY: And are these the same,
8 these holding basins the same as the water
9 identified as evaporation pits on figure 5 in the
10 project description, which is figure, I think,
11 there's like a number 15 where it says that.

12 So I can pull out that page for you, if
13 you don't have it.

14 MR. DE YOUNG: Again, are you referring
15 to the FSA?

16 MS. BELENKY: Yes, this is in the FSA.

17 MR. DE YOUNG: I can clarify that we do
18 not have evaporation pits. That was a carryover;
19 it was from an initial design and has since
20 changed in the revised description that was
21 provided as a data response.

22 MR. CARRIER: Just, if it's a, it's the
23 labeling.

24 MR. DE YOUNG: We do not have
25 evaporation pits and/or ponds at the site.

1 MS. BELENKY: So could you explain what
2 figure 15 is -- you're saying that you corrected
3 this figure, as well, or you --

4 MR. DE YOUNG: No, that's staff's
5 figure.

6 MS. BELENKY: I see. And you object to
7 this figure?

8 MR. HARRIS: Which page is figure 15 on?

9 MS. BELENKY: It says -- there's not a
10 page number, I'm sorry. It's at the back of the
11 first section; it's figure 5, project description.

12 MR. HARRIS: After page 319 of the FSA?

13 MR. DE YOUNG: Yes.

14 MR. HARRIS: Yeah, there is no --

15 MS. BELENKY: There's also figure 5.

16 MR. HARRIS: After project description?

17 ASSOCIATE MEMBER BOYD: After page 320,
18 there are a series of figures.

19 MR. HARRIS: Lisa, is it in the project
20 description section, you're saying?

21 MS. BELENKY: Yes, in the project
22 description. I can -- here's my copy.

23 (Parties speaking simultaneously.)

24 HEARING OFFICER KRAMER: You're talking
25 about figure 5, and then there's -- one of the

1 items is item 15.

2 MS. BELENKY: Number 15.

3 HEARING OFFICER KRAMER: Right.

4 MS. BELENKY: Number 15 is labeled as
5 evaporation pit.

6 MR. DE YOUNG: As I said, that was in
7 the initial design of the project. It's no longer
8 in the project description. It was modified in a
9 data response to the CEC. We do not have
10 evaporation pits. So it's a mistake in the FSA.

11 MS. BELENKY: Thank you. Can you show,
12 is there a map, because I did try and look for
13 this, but that shows where these holding basins
14 are that you have as part of the project, the six
15 holding basins.

16 MR. CARRIER: Lisa, if you turn to
17 figure 7 of the FSA --

18 MS. BELENKY: Yes, um-hum.

19 MR. CARRIER: You'll notice at the
20 bottom of the page there's two rectangular or
21 square near the bottom left-hand corner.

22 MS. BELENKY: Oh, kind of faded out
23 there at the bottom? Okay.

24 MR. CARRIER: Right. That's the
25 concrete holding basins.

1 MS. BELENKY: Those are the holding
2 basins, thank you. And it says in the FSA that
3 these basins are used -- has something to do with
4 conditioning the boilers.

5 So what I'm trying to find out is
6 whether the basins would have water in them at
7 anytime.

8 MR. DE YOUNG: Yes, they would have
9 water in them at certain times. Mr. Stewart,
10 clarify?

11 MR. STEWART: The basins are used, I
12 believe, for the small percentage of water that's
13 used for boiler blowdown. So it has a small
14 stream that goes in there, but it's -- that's it.

15 MS. BELENKY: So would you say there is
16 usually at least some water in the holding basin?

17 MR. STEWART: Not on a continuous basis,
18 no.

19 MS. BELENKY: It's drained into your
20 waste stream, is that correct, you water is?
21 Where would it be going if it's coming in? Where
22 is it going out to?

23 MR. DE YOUNG: It would go to the water
24 treatment system.

25 MS. BELENKY: Thank you. And how often

1 would they have water in them?

2 MR. DE YOUNG: We said very very
3 infrequently; they'll be used early on to clean
4 out the boiler. And then they're essentially
5 there for emergency purposes, should we have the
6 need to drain a boiler in an emergency situation,
7 so it's not discharged to the ground. It's a
8 quite common power plant feature.

9 MS. BELENKY: Thank you. I just want to
10 make sure I understand what percentage of the time
11 there would be any water in the holding basin.

12 MR. DE YOUNG: We've not calculated a
13 percentage of the time. We've said that it would
14 be very very infrequent.

15 MS. BELENKY: Thank you. Would the
16 water be clean? Or would it -- it would need to
17 go through your water treatment system?

18 MR. DE YOUNG: We're a zero liquid
19 discharge facility. The water that would enter
20 the ponds would go through the treatment system.

21 MS. BELENKY: Is there any contaminants
22 that may be in these waters?

23 MR. DE YOUNG: No, it's very clean
24 water.

25 MR. STEWART: It's purified boiler water

1 is what it is.

2 MS. BELENKY: And would it be cold or
3 warm or hot, either one, when it comes out into
4 this pond -- basin?

5 MR. STEWART: That depends on the
6 situation. If it's to drain a boiler for a
7 maintenance activity, then it's likely to be cold.
8 If it's blowdown it's likely to be warm or hot.

9 MS. BELENKY: And blowdown refers to an
10 emergency, is that correct?

11 MR. STEWART: No, no. It's a very small
12 stream of water that is taken off of the normal
13 operations in order to maintain the highest
14 quality water within the boiler, itself. Prevents
15 corrosion and so on.

16 MS. BELENKY: Thank you. I'm just -- I
17 want to make sure I'm not a little bit confused.
18 On the one hand I heard you say that a small
19 stream of water would be going into the holding
20 basins continually. And then they would be only
21 used to a larger capacity more infrequently, is
22 that correct?

23 MR. DE YOUNG: I don't think we said
24 continually, no.

25 MS. BELENKY: Often? I think that

1 there's some confusion, so I would like to clarify
2 this question.

3 How often would a small stream of water
4 be going into the holding basin?

5 MR. STEWART: Lisa, the clarification is
6 that this boiler blowdown goes directly to the
7 treatment system where the holding basins are used
8 for the much more infrequent periods when you may
9 have to drain a boiler for emergency or for
10 maintenance purposes.

11 MS. BELENKY: Okay, thank you.

12 MR. STEWART: Sure.

13 MS. BELENKY: Okay, I have a few
14 questions now on the transmission line and how it
15 relates to your project.

16 My understanding, and staff also
17 submitted some additional information on this, is
18 that there is a current 115 kilovolt line that
19 goes through the site.

20 I'm curious about the capacity of the
21 line versus the capacity of the new line that's
22 being proposed that would go in with a new
23 substation.

24 So is the current line capacity
25 sufficient for any part of the Ivanpah Plant?

1 That is, would it be sufficient for Ivanpah 1
2 output alone?

3 MR. STEWART: It would be sufficient for
4 just a portion of Ivanpah 1.

5 MS. BELENKY: Thank you. And what
6 amount, you know, an estimate, would that be?
7 The --

8 MR. STEWART: Southern California Edison
9 gives us a maximum estimate of 83 megawatts.

10 MS. BELENKY: Thank you. So, is it
11 correct to say that the transmission upgrade of
12 that line is a necessary condition for the
13 construction of all of the Ivanpah three, 1, 2 and
14 3, projects?

15 MR. STEWART: The transmission system
16 upgrade is being performed by Southern California
17 Edison for a number of projects, not just the
18 Ivanpah project.

19 MS. BELENKY: Thank you. My question is
20 is it necessary for Ivanpah, as well.

21 MR. STEWART: Yes.

22 MS. BELENKY: Thank you. And is it
23 correct to say that the additional substation is
24 this proposed, which basically sits within your
25 project footprint, is also necessary for the

1 project?

2 MR. STEWART: Yes.

3 MS. BELENKY: Thank you. Is it correct
4 to say that the new substation also requires the
5 additional telecommunication line? And let me
6 rephrase that a little. I wrote these last night
7 -- actually two days ago.

8 My question is the telecommunications
9 line, it's unclear to me if it's necessary simply
10 for the power line and its communication within
11 the grid. Or if it also has some interface with
12 your project.

13 MR. HARRIS: I think the witness
14 answered that, it's going to be coming up in
15 alternatives, so.

16 MS. BELENKY: Okay, great.

17 MR. HARRIS: Yeah, that's outside of our
18 project description.

19 MS. BELENKY: Thank you. I just have
20 not too many more questions. The loan guarantee
21 program is mentioned, at least in the FSA, as part
22 of the project description.

23 Now, I don't know if these are the
24 people who would answer these questions.

25 MR. HARRIS: Can you point to a place in

1 their testimony where this is referred to?

2 MS. BELENKY: I don't know if they do
3 refer to it. I could take out their testimony, as
4 well. I can ask these of the staff instead, if
5 that's preferable.

6 MR. HARRIS: If there's a place in their
7 testimony that you want to cross them on, that's
8 fine. If it's not, then they're not the proper
9 witnesses for the questions.

10 MS. BELENKY: If you could hold on a
11 minute I will check if it's in their testimony.

12 (Pause.)

13 MS. BELENKY: Yes, I believe that the
14 applicant's testimony does mention the loan
15 guarantees as an issue for timing of the project.

16 MR. HARRIS: Yeah, that's in the opening
17 statement of Mr. Woolard who testified in
18 December. It's not --

19 MS. BELENKY: And I would again --

20 MR. HARRIS: -- the testimony --

21 MS. BELENKY: - say for the record that
22 that testimony was given -- it was my
23 understanding that that testimony was given as
24 background, and we were not cross-examining at
25 that time.

1 So if you -- I could wait and we could
2 have Mr. Woolard, if that would -- you would
3 prefer.

4 MR. HARRIS: I actually didn't have the
5 understanding that you couldn't cross Mr. Woolard.
6 I'd ask for clarification on that. I thought Mr.
7 Woolard was available for cross.

8 HEARING OFFICER KRAMER: I believe that
9 -- I certainly meant to tell the parties that they
10 should cross Mr. Woolard at the time. I don't
11 think that prevents her from asking these
12 witnesses, who are also representatives of the
13 applicant, what they know about that issue.

14 If they do not know anything, then they
15 can say that for themselves. And if they do,
16 then, of course, they can answer.

17 Let me also say at this point in time
18 that that topic is going to be very relevant. We
19 will be inviting the parties, as either today as a
20 part of this discussion, or tomorrow when we talk
21 about alternatives, to put on all the testimony
22 they want to put on that will be relevant to the
23 issue of overriding considerations.

24 Because that is, while the Committee
25 hasn't decided whether or not it agrees with the

1 staff that there are some significant impacts that
2 cannot be mitigated, I think we would be foolish
3 to go ahead and conclude these hearings without
4 assuming that that is a possible finding. And
5 therefore, we should have the evidence available
6 to us to go the next step if we choose. And
7 decide whether or not to adopt overrides.

8 So, you know, again, I'm just about
9 certain that the applicant is going to say that
10 one of the reasons why the project must be
11 approved as it is proposed, where it is proposed,
12 really soon is because they would lose the benefit
13 of that benefit from the stimulus program. And I
14 believe there's one other.

15 So, I would suggest to the applicant
16 that it would be -- it would certainly help the
17 Committee if we can obtain this information, and
18 not be frustrated on some sort of procedural or
19 witness availability grounds in doing so.

20 MR. HARRIS: I think your statement is
21 correct that these witnesses don't have personal
22 knowledge and can't testify. They can say, I
23 don't know.

24 We will check Mr. Woolard's
25 availability. I have no problem bringing him back

1 to speak to the Commission or the Committee if
2 he's available. And I'm sure he has no problem
3 showing up again if Lisa wants to ask him a few
4 questions.

5 But having said that, I just -- we
6 obviously need to check and make sure about his
7 availability. And we will do so.

8 HEARING OFFICER KRAMER: Okay, and I --
9 Lisa, do you object at all to his calling in to
10 testify?

11 MS. BELENKY: Not at all. We'd like to
12 get all the answers on the table. And I do want
13 to point out that in the rebuttal testimony from
14 applicants, not this panel, but in their
15 alternatives rebuttal they did bring up issues
16 involving funding for various kinds of solar
17 projects.

18 And so I do think this is extremely
19 relevant to all the testimony we're going to hear
20 over the next few days. So I would like to make
21 sure, if not today, we could at least discuss some
22 of these issues, just basic background issues, on
23 the record.

24 So let me just ask these questions. If
25 you don't know the answer, we can wait and

1 hopefully Mr. Woolard can help us out sometime
2 this week.

3 The project description in the FSA
4 discusses the -- and also in your testimony,
5 discusses the loan guarantee program. What is the
6 amount of loan guarantee that the BrightSource has
7 applied for, for Ivanpah 1, which at least in the
8 FSA it states was applied for November of 2008.

9 MR. DE YOUNG: Unfortunately that is
10 being handled by a separate team led by Mr.
11 Woolard. I don't know.

12 MS. BELENKY: Thank you. We'll try and
13 get him in here then. And so you probably won't
14 know, then, the other amounts of the loans for
15 Ivanpah 2 and 3, is that correct?

16 MR. DE YOUNG: That is correct.

17 MS. BELENKY: And as far as what is
18 colloquially called the ARR grant funding, but I
19 believe is known as the payments for specified
20 energy projects in lieu of tax credits, under
21 section 1603 of the American Recovery and
22 Reinvestment Act of 2009, do you know what amount
23 of grant has been applied for for the Ivanpah
24 project?

25 MR. DE YOUNG: No. Again, it's --

1 MS. BELENKY: Okay.

2 MR. DE YOUNG: -- being handled by a
3 separate group within BrightSource.

4 MS. BELENKY: Thank you. So I think I
5 will reserve these questions hoping that -- I have
6 a few other questions that are related to that --
7 and hopefully Mr. Woolard will be made available.

8 Let me see if I have any other questions
9 for this panel on project description. No, I just
10 have a few questions directly for staff on the
11 project description. Thank you.

12 MR. DE YOUNG: Thank you.

13 HEARING OFFICER KRAMER: Any other
14 parties have questions of --

15 MS. SMITH: Thank you, Mr. Kramer. I
16 have a question that I just thought of, so if you
17 could bear with me while I sort of muddle through
18 this question.

19 Ready, Mr. Harris?

20 MR. HARRIS: I'm not answering any
21 questions.

22 MS. SMITH: I just want to make sure
23 you're --

24 MR. HARRIS: That's too hard sitting in
25 that chair, thank you. Thank you, though.

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CROSS-EXAMINATION

BY MS. SMITH:

Q My question has to do with how -- the relationship between heliostats and power towers. Is it correct -- I'm looking at project description figure 9 from the FSA -- is it correct that for Ivanpah 1 there would be one power tower?

MR. DE YOUNG: That is correct.

MS. SMITH: And just one power tower for Ivanpah 2?

MR. DE YOUNG: Correct.

MS. SMITH: And then is it correct that there's five power towers for Ivanpah 3?

MR. DE YOUNG: Yes, Ivanpah 3 being a nominal 220 megawatt project, has five power towers.

MS. SMITH: Thank you. My question goes to the relationship -- the number of heliostats per power tower. So what is the minimum number of heliostats you would use per a power tower to optimize power output, energy output?

(Pause.)

MR. DE YOUNG: Unfortunately, this panel cannot answer that question.

MS. SMITH: Can you talk a little bit

1 about why that question is unanswerable? Can you
2 explain that?

3 MR. HARRIS: I think he -- I'd object on
4 the basis of calling for speculation. They said
5 they don't know the answer.

6 MS. SMITH: Is there someone else at
7 BrightSource, or one of the consultants, that can
8 answer that question?

9 MR. HARRIS: Can you point to a portion
10 of their direct testimony that you are now
11 questioning about? I think you've gone outside
12 the scope of their direct testimony.

13 MS. SMITH: Well, then I will withdraw
14 that question, because the question I'm most
15 interested in is what is the maximum number that
16 you would use per power tower to optimize energy
17 output.

18 MR. HARRIS: And again I'd object to
19 being outside the scope of direct testimony.

20 MS. SMITH: I would say that this --

21 HEARING OFFICER KRAMER: Overrule the
22 objection.

23 MS. SMITH: Just to explain, I would
24 think this is entirely relevant because there's
25 five power towers for Ivanpah 3, and it's only

1 half, it's only, you know, twice the size of
2 Ivanpah 1 and 2.

3 I'm just trying to understand how you
4 can figure the heliostats and the power towers.
5 It's not a trick question or anything. I'm just
6 trying to understand.

7 MR. HARRIS: It is a detailed
8 engineering question that -- but, go ahead, John.

9 MR. CARRIER: Let me give you a little
10 background, Gloria. Originally the original
11 design was Ivanpah 1 and 2 had three power towers,
12 and Ivanpah 2 had five power towers. So,
13 originally there was three on 1 and 2, each one
14 had three.

15 And it was data response set 1D which
16 was the optimization, we went through and
17 optimized Ivanpah 1 and 2, and changed it to try
18 to be more efficient, to drop the other extraneous
19 towers and go with just one.

20 So the number of heliostats is really an
21 engineering modeling question, which is a function
22 of, you know, the height of the tower, the
23 solarity, I mean all sorts of factors. And the
24 ones obviously closer to the tower are more
25 valuable than the ones farther out.

1 the applicant just stated that the output now, the
2 maximum output for 1, 2 and 3 together is 440
3 megawatts.

4 And in the testimony it adds up to 400
5 megawatts, 100 for 1, 100 for 2, 200 for block 3.
6 Is there a way to determine the amount of
7 footprint at the outer edges of, you know, the
8 less efficient heliostats?

9 Do you know the amount of megawatts per
10 area that's produced out in those outer areas?
11 Does that make sense, that question? How much are
12 those extra -- the megawatts?

13 MR. HARRIS: Greg, can you restate the
14 question?

15 MR. SUBA: Sure, okay.

16 MR. HARRIS: You lost me with the
17 introduction --

18 MS. SMITH: Sorry, Jeff.

19 MR. HARRIS: -- I'm sorry. That's okay.

20 MR. SUBA: The Ivanpah 3 has 20
21 megawatts, it's rated 20 megawatts over what I
22 think is the original goal for the project. And
23 the outer rings of those heliostats are less
24 efficient than the inner rings.

25 How much of the 220 megawatts of Ivanpah

1 3 are coming from the outer rings of the field?
2 Is there a relationship there that we can quantify
3 on an aerial basis?

4 MR. STEWART: Again, Greg, that is a
5 detailed engineering modeling question which this
6 panel really -- we don't have the specific answers
7 on megawatts per any specific small area, this
8 panel.

9 MR. SUBA: Is that how it's calculated,
10 though? Is there some -- closer in you're
11 producing more megawatts than you are farther out?

12 MR. STEWART: I don't think --

13 MR. SUBA: Per heliostat.

14 MR. STEWART: -- it's really that
15 simple. It's all integrated. The heliostats on
16 the north side are more valuable than on the south
17 side. But, again, it's a detailed engineering
18 analysis and it's integrated for the entire solar
19 field as to how you get to the total number of
20 megawatts.

21 PRESIDING MEMBER BYRON: Mr. Suba, if
22 you go back and look at your physics book, --

23 MR. SUBA: Oh, boy, --

24 PRESIDING MEMBER BYRON: -- light
25 dissipates --

1 MR. SUBA: -- that's a scary thought.

2 PRESIDING MEMBER BYRON: -- by the
3 square of the distance. So we know that, you
4 know, the further things are away the less
5 intensity there would be. But we accept the fact,
6 obviously, that there's a lot of optimization in
7 the design.

8 HEARING OFFICER KRAMER: Although here
9 the distance we're talking about is the distance
10 from the sun, isn't it, ultimately?

11 MS. SMITH: No, from the mirrors.

12 HEARING OFFICER KRAMER: And the
13 incremental distance, whether the mirrors are 400
14 meters or 1000 meters away from the power tower,
15 is dust compared to that longer distance.

16 MR. STEWART: Again, we're into the
17 detailed testimony. Yoel Gilon, when he was here,
18 talked in excruciating detail about heliostat
19 design and benefits of each and every heliostat.

20 I apologize to the team, I'm not ready
21 to answer those kinds of questions.

22 HEARING OFFICER KRAMER: Okay.

23 MR. SUBA: No, I never meant to put you
24 on the spot. I'm just trying to understand where
25 the -- it's now a 440 megawatt peak output

1 operation. I'm wondering where those 40 megawatts
2 are coming from on the side, you know, as it's
3 laid out.

4 HEARING OFFICER KRAMER: What did they
5 say earlier this morning. If you could repeat the
6 explanation that gave an answer to Mr. Ratliff's
7 question, that would be helpful.

8 MR. STEWART: The question was answered
9 earlier, it was the 400 megawatts that were
10 addressed in 2007 for a nominal figure. And as
11 engineering progressed, the engineers became more
12 knowledgeable as to what they could actually put
13 out. And the 440 represents a more accurate
14 figure than the 400 megawatts.

15 HEARING OFFICER KRAMER: And is that
16 with any increase in the area of the heliostat
17 mirrors? Or is it based on -- or the number of
18 mirrors?

19 MR. STEWART: You mean the project
20 footprint?

21 HEARING OFFICER KRAMER: Or is it just,
22 okay, project footprint?

23 MR. DE YOUNG: No, there's no increase
24 in the project footprint since May 8th of 2008
25 that was in data response set 1D.

1 HEARING OFFICER KRAMER: So is it fair
2 to say those are just refined calculations with
3 better information?

4 MR. DE YOUNG: Yes.

5 HEARING OFFICER KRAMER: Do you have any
6 more questions, Mr. Suba?

7 MR. SUBA: So with the refined
8 calculations, does it -- I'm not familiar so
9 you'll have to bear with me, I'm sorry -- I'm not
10 familiar with how the power purchasing agreements
11 are set up and what kind of contracts you're under
12 to produce how much for which companies.

13 But now that you have a more refined
14 value of 440 megawatts, is that the value of
15 output that your contracts are based on?

16 MR. HARRIS: I'm going to object.
17 There's no testimony about power purchase
18 agreements before us.

19 MR. SUBA: I'm --

20 HEARING OFFICER KRAMER: Well, on those
21 grounds I would overrule the objection.

22 MR. HARRIS: Should I pick another
23 grounds?

24 (Laughter.)

25 HEARING OFFICER KRAMER: I'm not going

1 to help you, though.

2 MR. HARRIS: It's definitely not on
3 their direct testimony, how about that grounds?

4 MR. SUBA: Well, you know, is this a 400
5 megawatt output facility or 440 megawatt output
6 facility?

7 MR. HARRIS: It's a nominal 400 megawatt
8 facility. That has not changed. And the word
9 nominal has everybody wrapped around the axle.

10 MR. SUBA: Thank you.

11 HEARING OFFICER KRAMER: But they are
12 expecting now to be able to produce 440 megawatts,
13 is that correct?

14 MR. DE YOUNG: That's correct. The
15 intent is within the footprint to optimize, to get
16 as much power out of that footprint as possible.
17 And it's an ongoing exercise by the engineers.

18 HEARING OFFICER KRAMER: And has that
19 recognition that the output can be greater now
20 affected your analysis of any of the possible
21 impacts of the project?

22 MR. DE YOUNG: I'm not -- could you
23 please restate, I'm not sure I understand --

24 PRESIDING MEMBER BYRON: Does it affect
25 biology? Does it affect cultural resources? Does

1 the increased output affect any of the conclusions
2 that --

3 MR. DE YOUNG: No, because again the
4 project footprint has not grown for the last 18 or
5 20 months. So all of the analysis that went into
6 the current size of the project took into account
7 all of those environmental issue areas like
8 cultural, biology, et cetera.

9 HEARING OFFICER KRAMER: Now the one
10 place that it might have an effect was if the
11 transmission lines that are eventually built ran
12 out of capacity again. But is that the case?

13 MR. STEWART: The transmission project
14 that Edison is pursuing through the California
15 Public Utilities Commission is sized for much more
16 than just the Ivanpah project. It is -- it's
17 critical to our project, but it is not being built
18 just for our project.

19 HEARING OFFICER KRAMER: So it has more
20 capacity than the 440 megawatts?

21 MR. STEWART: Absolutely. It has, I
22 believe it's 1400 megawatts is the base capacity
23 of the EITP. But you have to review Edison's CPCN
24 to get that -- to verify that figure.

25 HEARING OFFICER KRAMER: Okay. Any

1 intervenor who has not cross-examined yet wish to
2 ask any questions? That would include people on
3 the phone. But Ms. Cunningham indicates she
4 wishes to. So, stand by on the telephone.

5 MS. CUNNINGHAM: Laura Cunningham --

6 HEARING OFFICER KRAMER: You need to
7 turn your mic on.

8 CROSS-EXAMINATION

9 BY MS. CUNNINGHAM:

10 Q Do you have a figure for the amount of
11 water that would be lost or evaporated in acrefeet
12 per year from blowdown or makeup water from the
13 dry cooled system?

14 MR. STEWART: The blowdown goes straight
15 to the treatment system, so it's not evaporating,
16 I guess. And the -- what was the --

17 ASSOCIATE MEMBER BOYD: Are you saying
18 blowdown to closed system?

19 MR. STEWART: Yes.

20 MR. DE YOUNG: We've said that the
21 project during operations will use approximately
22 100 acrefeet per year. And the vast majority of
23 that will be used for mirror wash.

24 ASSOCIATE MEMBER BOYD: All mirror wash
25 water is lost to evaporation?

1 MR. DE YOUNG: There's very very little.
2 In fact, John, do you recall the number -- very
3 little water that's used in the washing of the
4 mirrors. So it's either evaporation or a small
5 amount dripping off the bottom of the mirror and
6 evaporating.

7 But, again, dependent on the time of
8 year that will -- the evaporation rates go up or
9 down.

10 HEARING OFFICER KRAMER: So some of the
11 water could percolate into the soils.

12 ASSOCIATE MEMBER BOYD: More like
13 hitting a hot frying pan, I think.

14 MR. DE YOUNG: One of our data responses
15 looked at that issue and there was very very
16 little percolation of water.

17 HEARING OFFICER KRAMER: So then your
18 assumptions were that most of it will evaporate?

19 MR. DE YOUNG: Most of it evaporates.

20 ASSOCIATE MEMBER BOYD: None of it is
21 attributable to any form of dust suppression?

22 MR. DE YOUNG: During construction, not
23 during operation.

24 HEARING OFFICER KRAMER: Any other
25 questions? Ms. Belenky, you'll need to wait for

1 recross. Anyone on the telephone wish to cross-
2 examine these witnesses?

3 DR. CONNOR: No questions.

4 HEARING OFFICER KRAMER: Okay. Ms.
5 Belenky, I hope it's a followup question relating
6 to something they said.

7 MS. BELENKY: No, actually, I just
8 wanted to clarify the procedure. Because these
9 witnesses couldn't answer several questions, I
10 want to make sure that the applicant has agreed
11 that they will try to bring Mr. Woolard.

12 But on the question about the gas
13 boilers and the calculation of 28 percent, I
14 believe there would be a different person, maybe,
15 who would have to answer that. And I'm just
16 wondering if I could get some clarity of whether
17 they could please provide the person who could
18 help understand what that calculation was based
19 on.

20 MR. HARRIS: Yeah, I think that's going
21 to require to call somebody in Israel. And they
22 may need to be available by phone, or it may be
23 that they can point one of these witnesses to a
24 document that has that information in it.

25 MS. BELENKY: Thank you.

1 HEARING OFFICER KRAMER: Okay.

2 MR. DE YOUNG: Just to point out if we
3 do bring someone in from Israel, due to the time
4 constraints, it would be preferable to hit them as
5 early in the morning as possible. That's their
6 evening.

7 HEARING OFFICER KRAMER: Or what about
8 our evening, how would that correlate with their
9 breakfast?

10 Okay, well, do we have any other parties
11 wishing -- I gather we're done with this panel
12 unless somebody says otherwise.

13 PRESIDING MEMBER BYRON: Mr. Kramer, I
14 have just a couple of quick questions. I'd like
15 to make sure I understand a couple things.

16 HEARING OFFICER KRAMER: Go ahead.

17 PRESIDING MEMBER BYRON: Gentlemen, good
18 job. Obviously there's a lot of questions here
19 about optimization of this design. And Mr. Kramer
20 asked one of the key questions that I had, and
21 that was does the higher output increase -- the
22 higher output, the 10 percent capacity increase,
23 impact some of the topic areas that we're
24 concerned about, namely biology and visual. And I
25 think I have my answer there.

1 I was concerned, I liked the line of
2 questioning about the ARRA funding. And I think
3 that may be helpful to the Committee. However,
4 I'm just wondering if, Mr. Harris, that testimony
5 might be confidential. Will the company be able
6 to disclose information about the ARRA funding
7 applications?

8 MR. HARRIS: Mr. Haubenstein and I were
9 talking about that during the questioning. And I
10 think the answer is that someone can explain the
11 Treasury Department's ITC program. The other one,
12 the USDOE loan guarantee program, I believe that
13 is confidential information. It's negotiation for
14 those loan guarantees with DOE. They're ongoing.
15 And as Mr. De Young said, those are being
16 conducted by the financial side of the company.

17 And I would be very surprised if that
18 information can be released to the public. But
19 having said that, I'm sure Mr. Woolard would love
20 to come testify and explain the importance of both
21 those programs to this project, and the importance
22 of getting the project certified to allow
23 construction to commence in 2010.

24 PRESIDING MEMBER BYRON: Or on the
25 phone.

1 MR. HARRIS: Or on the phone, correct.

2 Yes.

3 PRESIDING MEMBER BYRON: The other
4 question I had was with Ms. Belenky. I just want
5 to make sure I understood the line of questioning
6 about the standing water. Is that because there's
7 concern about attracting predators, or are you
8 keeping that a secret from us?

9 MS. BELENKY: No, I'm not keeping it a
10 secret. Yes, I think the question of standing
11 water on the site is an issue for any -- several
12 biological issues. Whether it would attract birds
13 or other animals in the area onto the site.

14 ASSOCIATE MEMBER BOYD: That was easy to
15 -- I don't want to say infer -- to read in your
16 recently submitted material.

17 PRESIDING MEMBER BYRON: Okay.

18 MR. DE YOUNG: I'll also note that we
19 recognize that, and that's the reason that the
20 ponds will not hold water. I think we've made a
21 commitment to get any water that's in there out as
22 quickly as possible. No longer than 24 hours will
23 water be in any one of those basins.

24 PRESIDING MEMBER BYRON: Okay.

25 ASSOCIATE MEMBER BOYD: Would you accept

1 a condition to that effect?

2 MR. DE YOUNG: Yes.

3 MS. SMITH: Mr. Kramer, going back to
4 the AARA (sic) funding and any grants or federal
5 monies that the applicant may receive, I don't
6 think we're interested in any amounts. It's more
7 the process, itself.

8 And given that this is coming out of the
9 federal FISC, I can't imagine anything like that
10 would be confidential.

11 PRESIDING MEMBER BYRON: General Fisc,
12 is that a person or a thing or what is that?

13 (Laughter.)

14 MS. SMITH: It's a law school term. You
15 know the Treasury.

16 ASSOCIATE MEMBER BOYD: Our money.

17 MS. SMITH: This is taxpayer money. So
18 I think we're interested in just the way the
19 process works and the timing. I'm not interested
20 in any amounts. Thank you.

21 PRESIDING MEMBER BYRON: Okay, good.

22 MS. SMITH: Apparently I spoke just for
23 myself about that.

24 (Laughter.)

25 PRESIDING MEMBER BYRON: Okay, Mr.

1 Kramer, thank you. I think this panel obviously
2 shows the value of the informal panel process in
3 getting through our questions.

4 MR. HARRIS: It's killing me actually,
5 so.

6 (Laughter.)

7 HEARING OFFICER KRAMER: Two birds.

8 MR. HARRIS: Just kidding.

9 HEARING OFFICER KRAMER: Thank you. So,
10 we're going to keep this topic open to hear from,
11 later on in our hearings this week, Mr. Woolard.
12 And also perhaps a witness to answer some
13 questions about the capacity factor and how --
14 well, I've forgotten the details of that, but how
15 that relates to the output of the project.

16 So now we'll move on to the topic of
17 biology.

18 MS. BELENKY: We have our witness on --
19 we can just submit that testimony if there's no
20 objection and we don't need his live testimony.

21 But Curt Bradley, our witness, is on the
22 phone.

23 HEARING OFFICER KRAMER: Okay, well, we
24 would be having the applicant going first, --

25 MS. BELENKY: And also, I'm sorry, I had

1 some questions for staff on project description
2 that I mentioned.

3 HEARING OFFICER KRAMER: Oh, I'm sorry,
4 that's right, you did say that. So let's reopen
5 project description for that purpose.

6 PRESIDING MEMBER BYRON: Thank you,
7 gentlemen.

8 HEARING OFFICER KRAMER: Mr. Kessler,
9 you're here. Mr. Dover, is he here, as well? Mr.
10 Dover was another staff witness.

11 MR. RATLIFF: Mr. --

12 MR. KESSLER: Mr. Dover --

13 PRESIDING MEMBER BYRON: You'll need to
14 use the microphones, please.

15 MR. RATLIFF: Mr. Dover is a BLM
16 consultant and --

17 HEARING OFFICER KRAMER: That's right,
18 yeah. We've been over that ground. So Mr.
19 Kessler will be the staff's witness. Go ahead
20 with your questions.

21 MS. BELENKY: Thank you. I just have a
22 few questions and they relate to the project
23 description as stated in the FSA. And they do
24 relate to other issues we'll be dealing with later
25 in the week. I just wanted to make sure at this

1 stage that we are all on the same page.

2 CROSS-EXAMINATION

3 BY MS. BELENKY:

4 Q The project description states that the
5 gas boilers, I guess they're called, gas boilers
6 are to be used no more than four hours a day for
7 an average of one hour a day.

8 My calculations, and I'm not a math
9 expert, is that that would be 365 hours per year
10 per boiler, is that correct?

11 MR. KESSLER: That's our understanding.

12 MS. BELENKY: Thank you. The conditions
13 regarding the use of the gas boilers state that
14 they could be used for a maximum of 1460 hours per
15 year, which calculates to four hours per day, is
16 that correct?

17 MR. KESSLER: There's also, I believe, a
18 condition, air quality, forgive me for not knowing
19 the number offhand, but it's one of the AQSC
20 preface numbers, that limits to 5 percent overall,
21 in terms of the heat generated by the boilers
22 versus the solar system.

23 So I believe Mr. Walters, our air
24 quality expert, will be able to clarify that
25 further for you, But I believe that 1000 hours is

1 a condition related to the air district permit
2 requirements under the FDOC, whereas staff has a
3 more stringent condition with its recommended
4 conditions of certification.

5 MS. BELENKY: Let me just make sure I
6 understand. So you agree that the condition,
7 there is one condition currently that would allow
8 up to 1460 hours, is that correct? You agree
9 there is a condition --

10 MR. KESSLER: Yes.

11 MS. BELENKY: -- that states that? We
12 can go into more detail when we talk about air
13 quality.

14 But there is -- and there's another
15 condition that, as you say, says that the output
16 can be no more than 5 percent from gas burners or
17 boilers.

18 There is no condition that specifically
19 limits the use of the boilers per day to one hour
20 average per day, is that correct?

21 MR. KESSLER: That's correct.

22 MS. BELENKY: Thank you. In considering
23 the project description and the site, you know, as
24 it is in the site description, did you consider
25 the amount of shadow from the surrounding

1 mountains at this site at any point?

2 MR. KESSLER: We did not have any more
3 information than what was available within the --
4 if you're asking within the project description.
5 We captured what was available within the
6 documents. And we included that to the best of
7 our ability.

8 MS. BELENKY: So the staff did not
9 specifically look at the issue of either shadowing
10 or cloud cover. If I understand you correctly,
11 you're saying that to the extent that those issues
12 might have been embedded in the applicant's
13 explanation, that's where they would be? You
14 didn't separately -- the staff didn't separately
15 go and look at issues of cloud cover or shadowing
16 on the site, is that correct?

17 MR. KESSLER: We did not characterize
18 the percent of time or cloud cover shadowing
19 within our project description.

20 MS. BELENKY: Thank you. I think that's
21 all I had at this time.

22 HEARING OFFICER KRAMER: Let me ask you
23 one question. Shadowing, is that -- I want to
24 make sure I understand what you mean by that. Is
25 that shadowing from the nearby hills, which

1 reduces the time the sun is available?

2 MS. BELENKY: Yes, exactly.

3 HEARING OFFICER KRAMER: Okay, so it's
4 not just another way of describing cloud cover?

5 MS. BELENKY: No. It's not. And it's
6 just a way of discussing the fact that this
7 project is very very close to a very high
8 mountain. So as far as siting and the
9 appropriateness of the site, and later when we get
10 to alternatives, in comparing it to other sites,
11 this is a factor that was not explored, as far as
12 we can tell, either by the staff certainly, but in
13 the documents, in order to compare this site to a
14 different site. So it is a factor of this
15 environmental setting.

16 HEARING OFFICER KRAMER: Okay, thank
17 you.

18 MS. BELENKY: Thank you.

19 HEARING OFFICER KRAMER: Do any other
20 parties have questions for the staff witness?
21 Hearing none, then we will move on from the topic
22 of project description, but will not close it,
23 again, so that we can hear from Mr. Woolard on
24 ARRA funding issues and also the witness about the
25 relationship of the capacity factor to the amount

1 of use that the boiler receives.

2 MR. HARRIS: Do we want to move
3 documents at this point?

4 HEARING OFFICER KRAMER: Certainly you
5 can.

6 MS. BELENKY: Before we move on can I
7 just release my witness then if no one has any
8 cross-examination for my witness? Can we accept
9 Curt Bradley's testimony?

10 He's available on the phone now, and if
11 nobody has any cross-examination and we can just
12 accept the testimony into the record, then we can
13 move on.

14 MR. HARRIS: I guess if we're going to
15 bring probably Mr. Yoel Gilon back to talk about
16 shadowing and other issues, I'd prefer not to
17 close out this witness, keep them available in
18 case that we have questions for them after Mr.
19 Gilon's testimony.

20 HEARING OFFICER KRAMER: Okay, but he
21 certainly can be dismissed for the moment?

22 MR. HARRIS: Yeah, we --

23 HEARING OFFICER KRAMER: We will not
24 need him in the next couple hours.

25 MR. HARRIS: Mr. De Young is fiercely

1 tapping out an email to Israel right now, so
2 trying to figure out availability, so, yes.

3 MS. BELENKY: I'm sure we can all work
4 together to have them both be on the same,
5 probably both be on the phone, but that's fine.

6 So, we can dismiss Curt, and I'll send
7 him an email. But I think he's listening, so.

8 MR. RATLIFF: That's your witness on
9 project description, is it?

10 MS. BELENKY: Yes. Curt Bradley. Thank
11 you so much.

12 HEARING OFFICER KRAMER: Okay. Mr.
13 Harris, do you want to move documents?

14 MR. HARRIS: Yes, soon as I can get back
15 to them.

16 HEARING OFFICER KRAMER: And I'm working
17 by numbers.

18 MR. HARRIS: Okay, let me go back to
19 find the right numbers. The documents are
20 identified in section 1C of our prefiled
21 testimony. And those are as follows:

22 Exhibit 1, -- I'll do exhibit numbers --
23 exhibit 1, exhibit 4, exhibit 5, exhibit 7,
24 exhibit 20, exhibit 21, exhibit --

25 HEARING OFFICER KRAMER: Okay, slow

1 down.

2 MR. HARRIS: Sorry.

3 HEARING OFFICER KRAMER: 7, 20 --

4 MR. HARRIS: 7, 20, 21, 28, 29, 30 and
5 31.

6 HEARING OFFICER KRAMER: Any objections
7 to receiving those documents into evidence?
8 Seeing and hearing none, they are admitted.

9 Staff? Did you have any additional
10 documents to introduce?

11 MR. RATLIFF: On project description we
12 only had the staff FSA, I believe.

13 HEARING OFFICER KRAMER: Okay. That's
14 exhibit 300?

15 MR. RATLIFF: Yes.

16 HEARING OFFICER KRAMER: Any objection
17 to admitting that? Seeing none, that's admitted.

18 Any other party wish to -- Ms. Belenky?

19 MS. BELENKY: Yes, we wanted to admit
20 the revised testimony of Curtis Bradley. And I
21 realize now he may also be speaking later, but if
22 there's no objections I'd like to admit it at this
23 time.

24 HEARING OFFICER KRAMER: Which number is
25 that?

1 MS. BELENKY: I'm sorry, I didn't know I
2 had to give each testimony a separate number. We
3 submitted it on a certain -- was the 20th. I
4 could give you a new number for it. Let me
5 just --

6 HEARING OFFICER KRAMER: Well, it may
7 have one already. I just need to find it.

8 MS. BELENKY: I don't think so. I
9 thought when we admit -- sent in our testimony we
10 just called it testimony.

11 HEARING OFFICER KRAMER: But my
12 secretary may have -- look to the exhibit 900
13 range.

14 MS. BELENKY: Yeah, well, we -- it, I
15 think, on the 20th or the 21st of December.

16 HEARING OFFICER KRAMER: Well, you have
17 quite a few, so --

18 MS. BELENKY: Yeah. It's not in the
19 list that I provided with our numbers. I didn't
20 understand that I needed a separate number for
21 testimony, as well.

22 HEARING OFFICER KRAMER: Okay, well --

23 MS. BELENKY: So I could assign it a new
24 number.

25 HEARING OFFICER KRAMER: Why don't we

1 wait then, and during the break or later today we
2 can clarify that.

3 MS. BELENKY: Thank you.

4 HEARING OFFICER KRAMER: Any other party
5 wish to introduce any documents?

6 MR. RATLIFF: Mr. Kramer, I don't know
7 where it goes, but staff did do -- well, we do
8 have some exhibits that I think may -- I don't
9 know where they come in exactly, but one that
10 probably should go under project description is
11 exhibit 304, which pertains to the transmission
12 upgrades.

13 HEARING OFFICER KRAMER: Okay, any
14 objection to accepting exhibit 304? Seeing none,
15 that's accepted.

16 MR. RATLIFF: And we have exhibit 302
17 and 303, which don't pertain necessarily to
18 project description issues, but I want to make
19 sure those don't get left out. 302 is response to
20 the applicant's FSA DIS comments. And --

21 HEARING OFFICER KRAMER: Well, I think
22 at a minimum we'll get those during the cleanup.

23 MR. RATLIFF: Okay.

24 HEARING OFFICER KRAMER: They sound like
25 they relate more to other topics.

1 Okay, that closes out, for the moment,
2 project description.

3 And we move on to biological resources.
4 Mr. Harris, did you intend to have your biological
5 resources experts testify one at a time, or as a
6 panel?

7 MR. HARRIS: Will we be doing two
8 panels, three panels, how did you want to proceed?

9 HEARING OFFICER KRAMER: Tortoises
10 first; then botany; and then all the other issues
11 would be the streambed alteration and then Ms.
12 Belenky's, and perhaps others', questions about
13 the sheep, yes.

14 MR. HARRIS: We prepared four witnesses
15 and we're discussing how we'd divide those up.
16 Give us a moment, please.

17 We think we can handle it in two
18 separate panels. One panel on desert tortoise and
19 one panel with pretty much everything else,
20 because it's all pretty closely related. So
21 that's the way we'd like to proceed if we could.

22 HEARING OFFICER KRAMER: Okay. So, go
23 ahead with your desert tortoise panel.

24 MR. HARRIS: Okay.

25 HEARING OFFICER KRAMER: And so folks

1 are clear, this will not be -- this will be a
2 panel where we have direct examination and then
3 cross-examination, redirect and perhaps recross.
4 But it'll be -- I think it'll be somewhat more
5 efficient than having each of the three or four
6 witnesses do that individually.

7 Now, at least, you'll be able to ask a
8 question of the panel when you're cross-examining
9 them.

10 (Pause.)

11 MR. HARRIS: I guess we're ready to
12 proceed. All of you have been previously sworn,
13 so thank you, we'll skip that step.

14 MR. SPEAKER: Jeff, John was out of the
15 room, actually, when we did that.

16 Whereupon,

17 JOHN CLECKLER

18 was called as a witness herein, and after first
19 having been duly sworn, was examined and testified
20 as follows:

21 THE REPORTER: Please state and spell
22 your name for the record.

23 MR. CLECKLER: John Cleckler, that's
24 J-o-h-n C-l-e-c-k-l-e-r.

25 MR. HARRIS: All right, I guess we're

1 ready to proceed. And again I'll ask Mr. De Young
2 to answer our introductory questions on behalf of
3 the entire panel.

4 Okay, well, I guess we should, since the
5 panel's not completely new, or some of it is new,
6 please introduce yourselves and spell your names
7 for Mr. Petty, the court reporter.

8 MR. COCHRAN: My name is Mark Cochran,
9 M-a-r-k C-o-c-h-r-a-n.

10 DR. SPAULDING: Yes, my name is W.
11 Geoffrey, G-e-o-f-f-r-e-y, Spaulding,
12 S-p-a-u-l-d-i-n-g.

13 MR. HARRIS: Cleckler.

14 MR. SPEAKER: He did it.

15 MR. HARRIS: That's the problem with
16 having experienced witnesses, they're making me
17 look bad.

18 (Laughter.)

19 MR. HARRIS: All right, we've got
20 everybody's name spelled for the court reporter.

21 DIRECT EXAMINATION

22 BY MR. HARRIS:

23 Q Mr. De Young, on behalf of the panel
24 what subject matter testimony are you here to
25 sponsor today?

1 MR. DE YOUNG: Biological resources
2 pertaining to desert tortoise issues.

3 MR. HARRIS: And were the documents
4 sponsored as part of your testimony previously
5 identified in the prefiled testimony?

6 MR. DE YOUNG: Yes, they were.

7 MR. HARRIS: And those, again, are in
8 section 1C of our prefiled testimony and 1C of our
9 rebuttal testimony.

10 Do you have any changes, corrections or
11 clarifications to that testimony?

12 MR. DE YOUNG: Yes, we do.

13 MR. HARRIS: So what are those changes,
14 corrections or clarifications?

15 MR. DE YOUNG: This would be our opening
16 testimony, these are corrections to the opening
17 testimony. On pages numbers 40 and 41, section 2,
18 summary of testimony, subpart (a) regional
19 overview.

20 The applicant's testimony states, and I
21 quote, "field surveys include a general
22 reconnaissance, UFSWS protocol level, desert
23 tortoise surveys, western burrowing owl surveys,
24 and winter and spring bird surveys."

25 The correction is to take out the term

1 "and winter and spring bird surveys." And to add
2 an "and" prior to western burrowing owl.

3 MR. HARRIS: Okay. The next
4 clarification or correction?

5 MR. DE YOUNG: It's applicant's response
6 to CEC Staff data request, data response set 2K,
7 dated June 30, 2009, responses to data request 30
8 and 31, should be exhibit number 30.

9 MR. HARRIS: And the next one?

10 MR. DE YOUNG: Letter to John Kessler
11 from applicant regarding applicant's biological
12 resources mitigation dated August 7, 2009, was
13 shown as exhibit 57. It is correctly noted as
14 exhibit 63.

15 MR. HARRIS: And next, please?

16 MR. DE YOUNG: And then footnote 2,
17 redline strikeout.

18 MR. HARRIS: Okay, thank you.

19 We'll provide the parties with a copy of
20 those corrections and changes. But the one
21 substantive one was the first one identified there
22 where we had somebody conducted some bird surveys
23 that hadn't been surveyed, and so we're striking
24 that out.

25 So, with those corrections --

1 HEARING OFFICER KRAMER: Mr. Harris,
2 would you like this to become an exhibit then?

3 MR. HARRIS: It is --

4 MR. DE YOUNG: These corrections to
5 become an exhibit?

6 HEARING OFFICER KRAMER: It might be the
7 best way to keep track of it.

8 MR. HARRIS: If you prefer, yeah. We
9 have hard copies and we'll distribute those at the
10 end, so do you want to give it an exhibit number?

11 HEARING OFFICER KRAMER: Yeah, that'll
12 give it a place in the exhibit box.

13 (Pause.)

14 HEARING OFFICER KRAMER: And I have the
15 next number being exhibit 86.

16 (Pause.)

17 HEARING OFFICER KRAMER: Okay, so again,
18 this is exhibit 86.

19 MR. HARRIS: Okay. With those changes
20 and corrections now, do you -- were the documents
21 prepared either by you or at your direction?

22 MR. DE YOUNG: Yes, they were.

23 MR. HARRIS: And are the facts stated
24 therein true to the best of your knowledge?

25 MR. DE YOUNG: Yes.

1 MR. HARRIS: Are the opinions stated
2 therein your own?

3 MR. DE YOUNG: On behalf of the panel,
4 yes.

5 MR. HARRIS: And do you adopt this as
6 the testimony for the proceeding?

7 MR. DE YOUNG: Again, on behalf of the
8 panel, yes.

9 MR. HARRIS: Thanks. We're going to
10 start, if we could, with you, Mr. De Young, on the
11 desert tortoise issues. Can you explain to the
12 panel what your position is with the company, the
13 applicant's parent company, BrightSource?

14 MR. DE YOUNG: I'm Vice President for
15 Environmental Safety and Health with BrightSource
16 Energy.

17 MR. HARRIS: And in that capacity are
18 you responsible for all aspects of the project's
19 compliance with laws, ordinances, regulations and
20 standards?

21 MR. DE YOUNG: Yes, I am responsible for
22 the licensing of this project, as well as
23 compliance with ES&H issues during construction
24 and ultimately operation of the project.

25 MR. HARRIS: Mr. De Young, have you been

1 involved in discussions with the Commission Staff
2 of what the CDFG, California Department of Fish
3 and Game, on desert tortoise mitigation issues?

4 MR. DE YOUNG: Yes, I have. I've acted
5 as the lead in negotiating mitigation for the
6 project. And been in regular contact with agency
7 staff. And have personal knowledge of those
8 discussions.

9 MR. HARRIS: So, in terms of the factual
10 issues here, how many desert tortoise were found
11 onsite during your protocol level surveys?

12 MR. DE YOUNG: During the protocol level
13 surveys 25 desert tortoise were found on the 462-
14 acre site during protocol level surveys that were
15 conducted in 2007 and 2008.

16 MR. HARRIS: And do you plan to relocate
17 those desert tortoise before you begin
18 construction?

19 MR. DE YOUNG: Yes, we'll relocate the
20 desert tortoise to the north and to the west of
21 the project site. I'll note that the Service's,
22 USFWS, site specific recommendations for the
23 Ivanpah project called for a maximum density of 39
24 desert tortoise per square kilometer. And we
25 have, again, as I said, 25 desert tortoise. So we

1 think that we have plenty of good habitat for
2 relocation.

3 MR. HARRIS: And that relocation will
4 take place consistent with the requirements for
5 desert tortoise relocation as set forth by the
6 U.S. Fish and Wildlife Service, is that correct?

7 MR. DE YOUNG: Yes, we will comply with
8 all requirements of the Service's biological
9 opinion when it's issued, as well as any other
10 conditions of certification contained in the
11 Commission decision.

12 MR. HARRIS: We talked about starting
13 construction in 2010 being an important issue for
14 the company. Can you briefly describe the process
15 for building the desert tortoise fence and
16 clearing the sites before construction can
17 commence?

18 MR. DE YOUNG: Certainly. This will be
19 done on a phased approach. Generally what will
20 happen is we'll have a team of biologists,
21 biological monitors, at the site. We'll clear the
22 roadway going into the site. And then begin
23 clearance, not impacting the tortoise, but
24 insuring that there are no tortoise in the area of
25 fences to be constructed.

1 It's anticipated that we'll start up in
2 the construction logistics area, building desert
3 tortoise fence. Then move down to site one, then
4 site two and site three.

5 So, again, there'll be a team of
6 biological monitors insuring that we're not having
7 any impact on the tortoise during the construction
8 of those fences.

9 After all the areas have been fenced
10 off, we will do transects of the site and relocate
11 any tortoise that are discovered.

12 MR. HARRIS: You mentioned you've been
13 involved in discussions with CDFG on desert
14 tortoise issues. Can you briefly just describe
15 how long you've been involved in trying to reach
16 some consensus on these issues?

17 MR. DE YOUNG: Yes. It's been well over
18 a year. I've participated in multiple meetings
19 and discussions that are too numerous to detail
20 here.

21 I can say that we've been looking for a
22 way to reach a consensus, to get to, yes, with
23 CDFG on mitigation for this species. And again,
24 I'm referring to desert tortoise.

25 MR. HARRIS: Before detailing that

1 compromise, you said BrightSource offered a
2 compromise on desert tortoise mitigation on August
3 7, 2009. I want to understand what your
4 impressions are from whether BLM is satisfied
5 first. Let's focus on BLM, if you would. Is BLM
6 satisfied with the desert tortoise mitigation for
7 the project?

8 MR. DE YOUNG: Yes, I believe BLM is
9 satisfied, although that ultimately will come out
10 in the record of decision. BLM has an established
11 in-lieu fee program on federal Endangered Species
12 Acts, the issues, the law is clear. We have
13 certain mitigation obligations --

14 MS. BELENKY: I'm sorry, --

15 MR. DE YOUNG: -- under the ESA --

16 MS. BELENKY: -- I don't want to
17 interrupt with too many procedural, but I believe
18 this is hearsay, to ask him what BLM thinks. So
19 I'm a little concerned about, maybe you could just
20 rephrase it so that it's more clear that he's not
21 speaking for BLM. Thank you.

22 MR. HARRIS: Based on your discussions
23 with BLM, what is your impression?

24 MR. DE YOUNG: Based on my discussions
25 with BLM my impression is that we will be using

1 their existing in-lieu fee program where they set
2 forth a requirement that every acre that's
3 disturbed be compensated in a ratio of one-to-one.
4 And that's an in-lieu fee program. So it's a
5 payment made to BLM based on final acreage of the
6 project, a dollar fee per final acreage.

7 MR. HARRIS: We hear a lot of mitigation
8 ratios, and you know, one-to-one, three-to-one.
9 What's your understanding of how BLM determines
10 the mitigation ratios for the Ivanpah project
11 site?

12 MR. DE YOUNG: It's my understanding
13 that in the final EIS for the Ivanpah Valley, that
14 would be referred to as the northern and eastern
15 Mojave Desert Management Plan, or NEMO, that the
16 BLM designated the Ivanpah site as the lowest
17 habitat management category. That would be
18 category three.

19 With that, I'll note that it's true that
20 the Ivanpah Valley does contain some high-quality
21 desert tortoise habitat. However, it is important
22 to distinguish between one, the general statement
23 that the entire -- referring to the entire Ivanpah
24 Valley; and two, specific statements in the NEMO
25 regarding the Ivanpah site, itself, for areas like

1 the Ivanpah project site that are outside of areas
2 of critical environmental concern, and outside
3 critical habitat for endangered species.

4 The BLM's final EIS for the NEMO calls
5 for a one-to-one mitigation ratio. And, again,
6 what that means, the NEMO called for every acre of
7 the site that's disturbed a compensation of a
8 dollar amount, one-to-one. One acre of
9 disturbance per one acre of compensation.

10 The NEMO final EIS also states that
11 funds collected for project proponents shall be
12 directed to habitat enhancement, rehabilitation or
13 acquisition in the NEMO.

14 Would like to note that our project is
15 outside the Ivanpah Desert Wildlife Management
16 Area, or DWMA. It's not in an area of critical
17 environmental concern. And it is, with complete
18 certainty, located on lands that the final EIS for
19 the NEMO designated as lands where one-to-one
20 mitigation ratio applies.

21 MR. HARRIS: And that one-to-one
22 mitigation ratio is quoted in your direct
23 testimony, is that correct?

24 MR. DE YOUNG: That's correct.

25 MR. HARRIS: In your estimation does

1 Fish and Game agree with the NEMO's final
2 determination on the one-to-one mitigation ratio?

3 MR. DE YOUNG: Based on a number of
4 discussions with staff from Fish and Game, I
5 believe that they disagree with the
6 recommendations in the NEMO. Specifically I
7 understand that CDFG wanted at least a ratio of
8 three-to-one, rather than the one-to-one
9 determination that came out in the final EIS.

10 MR. HARRIS: So there's a bit of a
11 history here between the agencies. CDFG wanted
12 those federally managed lands to require a three-
13 to-one mitigation ratio. The NEMO says one-to-one
14 for this particular site, is that correct?

15 MR. DE YOUNG: That is correct.

16 MR. HARRIS: In your opinion does that
17 history have a bearing on the agency's
18 recommendations in this particular proceeding?

19 MR. DE YOUNG: In my opinion it does. I
20 think the history is very significant for the
21 Commissioners to understand. It's my feeling that
22 CDFG is trying to reopen the final NEMO with this
23 proceeding today.

24 MR. HARRIS: Upon what information or
25 experience do you base that insight?

1 MR. DE YOUNG: Again, the numerous
2 meetings, personal communications with
3 representatives of CDFG. We've had conversations
4 with Mr. Hunting and Mr. Flint. And on several of
5 those occasions when I raised the NEMO final EIS
6 determination of a one-to-one mitigation ratio for
7 the project site, I was told that we at CDFG do
8 not agree with BLM's final EIS for the NEMO.

9 I will note that we tried on numerous
10 occasions to argue the logic that this is federal
11 land; that BLM is the federal land manager; that
12 there has never been a state role in these federal
13 lands.

14 And most importantly, pointed out that
15 the final EIS, by the federal land manager, the
16 BLM, found that the one-to-one mitigation ratio
17 was the site-specific answer to the question of
18 proper mitigation of the site.

19 On each occasion that we had those
20 discussions I was told that CDFG disagreed with
21 the results of the final EIS for the NEMO. And
22 point out that it was clear to me that CDFG,
23 again, did not agree with the final mitigation
24 ratios and was attempting to reopen the final EIS
25 on the NEMO. And that that is turning out to be a

1 quite significant obstacle to permitting this
2 project, as well as other solar projects, I'm
3 assuming, in the state.

4 MR. HARRIS: So the project's entirely
5 on federal lands, and you've got the final EIS
6 setting out the mitigation ratio. Why do you
7 believe CDFG continues to ask for more?

8 MR. DE YOUNG: CDFG claims that the
9 California Endangered Species Act, or CESA,
10 C-E-S-A, requires more. Specifically CDFG pointed
11 to the CESA use of the term, and I quote, "full
12 mitigation." CDFG argued that CESA full mitigation
13 requires something more.

14 MR. HARRIS: So, based largely on the
15 NEMA filing, does the company believe that the
16 one-to-one mitigation ratio was the right ratio
17 for this site, is that correct?

18 MR. DE YOUNG: That is correct.

19 MR. HARRIS: And so if you felt one-to-
20 one was the right ratio for the project, you know,
21 located entirely on federally managed BLM lands,
22 why did you offer more than one-to-one?

23 MR. DE YOUNG: It's simple. We had
24 attempted to reach a compromise with the agency to
25 move the project forward. To move the project

1 forward in a timely manner, given the constraints
2 that we have with funding and loan guarantees.

3 MR. HARRIS: So, let's be specific then.
4 What exactly did you offer in terms of compromise?

5 MR. DE YOUNG: We offered a compromise
6 comprehensive settlement agreement on August 7,
7 2009. And that is memorialized as exhibit 63.
8 And I ask that Mr. Carrier pass that out now.

9 MR. HARRIS: Okay, so we have copies of
10 this proposal. It's previously been identified as
11 exhibit 63. It was docketed with the Commission
12 on August 7th.

13 I just felt it would be easier to walk
14 through this compromise agreement with copies in
15 front of the parties. So we're going to provide
16 copies of exhibit 63 to the Commissioners and all
17 the parties.

18 HEARING OFFICER KRAMER: This is
19 certainly helpful to get copies of the key
20 documents rather than try to find them in my box
21 of stuff.

22 (Pause.)

23 MR. HARRIS: All right, we'll go ahead
24 and proceed then. Handed out exhibit 63. I'm
25 going to recommend that we focus on a single page

1 in that document, which is sort of a summary page;
2 and that is table 2 on page 4.

3 And table 2 on page 4 is entitled, the
4 Ivanpah Solar Project, applicant's comprehensive
5 settlement proposal.

6 So, Mr. De Young, can we use table 2 as
7 a sort of guide to walk us through the development
8 of your thinking here, and also the development of
9 this compromise proposal.

10 MR. DE YOUNG: Yes. The foundation for
11 our comprehensive settlement proposal is
12 compliance with the final EIS for the NEMO. I'd
13 like to refer to the one cell under federal
14 mitigation on table 2.

15 What we've depicted there, again, is a
16 BLM mitigation fee times the acreage, plugging in
17 the final number that BLM agrees to or arrives at
18 for compensation. And we end up with a one-to-one
19 mitigation from BLM.

20 MR. HARRIS: Okay, so that first, I
21 guess we call it unshaded cell there is simply an
22 attempt to memorialize your understanding of what
23 BLM requires for desert tortoise mitigation on
24 federal lands, is that correct?

25 MR. DE YOUNG: That's correct.

1 MR. RATLIFF: Commissioners, if I may,
2 I'd like to make a point of order at this time
3 that I believe that the testimony we are hearing
4 is simply irrelevant to the issues that we have
5 before us.

6 Or it may be relevant, but the issue may
7 be one that is more one of law than one of fact,
8 to the extent that it is relevant.

9 The letter in question is simply no more
10 than a bunch of legal conclusions that Mr. Harris
11 has drawn concerning the application of the
12 Endangered Species Act federally, and the state
13 Endangered Species Act. And his believe that they
14 require the same thing and that should be enforced
15 in the same manner.

16 We disagree with that, obviously. But I
17 don't think that's really going to be a very
18 purposeful thing for this panel to testify about.

19 The proposal as to why Fish and Game or
20 if there's any question as to why Fish and Game
21 disagrees about what is appropriate for full
22 mitigation under the California Endangered Species
23 Act, I think that that might be addressed to Fish
24 and Game, itself, whose representative will
25 testify later.

1 But I don't think it's particularly
2 fruitful to talk about some, you know, proposed
3 deal that was proposed to Fish and Game and how
4 that actually -- I don't think there is any
5 relevance here to the issue of what is the impact
6 that we're dealing with and what is appropriate
7 mitigation.

8 HEARING OFFICER KRAMER: Mr. Harris, if
9 you'd like to respond?

10 MR. HARRIS: This goes directly to the
11 heart of this entire case. And what we're
12 presenting is prefiled testimony that sets forth
13 the applicant's proposal to get this project
14 through and have it approved.

15 I styled it as a settlement agreement in
16 the hopes of being able to reach settlement with
17 some of the parties.

18 But please understand that the table
19 that we're walking through represents the
20 company's thinking on desert tortoise issues and
21 the appropriate levels of mitigation.

22 There seems to be general agreement that
23 three-to-one is a number that I think all parties
24 are agreeing to. But I need to walk the Committee
25 through the logic of how we got to this point.

1 And it's essential to figuring out, you know, how
2 much mitigation is required.

3 I think there are very few factual
4 issues about desert tortoise in terms of whether
5 they can be relocated. I'm sure some of the
6 intervenors will disagree and have their thoughts
7 on those issues.

8 But we have a witness here who is
9 willing to testify to the truth of the matter
10 asserted here. We have a witness from the company
11 who has set together a proposal. It's the
12 company's proposal for settling those issues. So
13 it has to be at the very heart of this proceeding.

14 HEARING OFFICER KRAMER: But are we
15 talking about facts or just argument?

16 MR. HARRIS: We are talking about facts.
17 We are talking about the facts of the desert
18 tortoise mitigation. We are talking about how
19 CDFG has reached their, I guess, recommendations.
20 And how the staff has reached their
21 recommendations.

22 We're talking about bio-17, and we're
23 talking about the applicant's proposed changes to
24 bio-17, which are prefiled. And those changes to
25 bio-17 is part of our prefiled testimony set forth

1 this very compromise we're walking through now.

2 And I really think it's important for
3 the Committee to understand the evolution of the
4 mitigation proposal. Because there has been
5 certain aspersions cast suggesting simply that we
6 haven't worked with people; that we haven't tried
7 to resolve these issues; that we haven't tried to
8 reach some compromise.

9 And those are factual questions. They
10 are not legal questions.

11 HEARING OFFICER KRAMER: I'm not sure of
12 the relevance of your effort to compromise.
13 Ultimately the Committee's going to decide what
14 the impacts are and what appropriate mitigation
15 is.

16 Mr. Ratliff, did you wish to say
17 anything else?

18 MR. RATLIFF: Well, Commissioners, we
19 have, I think, a very august panel of biologists
20 here who came presumably to talk about the
21 relocation plan and the impacts on desert
22 tortoise.

23 And I'm quite anxious to hear that
24 testimony. I didn't really expect to be hearing
25 about some deal that was proposed by the

1 Department of Fish and Game or to be discussing
2 the legal conclusions that applicant's counsel may
3 have about the equivalence of the Endangered
4 Species Acts, state and federal. And whether one
5 applies or prevents the application of the other.

6 If those are the issues here, I suggest
7 that they be accomplished through briefing rather
8 than through this testimony. I would like to get
9 on with the actual biological testimony.

10 MR. HARRIS: If there are legal issues
11 that are put on the table, those are subject to
12 objection. And I haven't heard any of those yet.

13 The factual questions that Mr. Ratliff
14 and others may want to entertain, our biologists
15 will be available to answer those questions.
16 We're going to stay as long as it need to get it.

17 But we have the burden of proof. We've
18 been asked to go first. And we ought to be
19 allowed to put on our case consistent with the
20 Commission's practices.

21 MR. RATLIFF: You know, I raised a point
22 of order, not an evidentiary objection. And the
23 point of order is that we're discussing something
24 that is really not relevant to the issue of
25 biological impacts and the mitigation which is

1 appropriate.

2 I think we're talking about some
3 proposed deal that the applicant made to Fish and
4 Game, which apparently was rejected. And which,
5 if it was, in fact, offered in settlement, I don't
6 understand why if Fish and Game was represented by
7 counsel, why they wouldn't have insisted that it
8 be kept confidential, as the applicant would
9 typically insist in their dealings on such.

10 MR. HARRIS: I find the point of order
11 interesting, given that we're going to hear from
12 Mr. Flint and CDFG later today, as staff's
13 insistence, without any prefiled testimony. I
14 think that latitude was granted. The latitude
15 here is similar.

16 HEARING OFFICER KRAMER: Well, Mr.
17 Ratliff, I have to treat your point of order as
18 somewhat akin to an objection. And I'm hearing
19 what you're saying. I think a desire to conduct
20 this hearing efficiently, and you see this as not
21 terribly productive information.

22 Where we are is that this does appear to
23 be mostly by way of background. And so we will
24 allow the applicant a little bit of latitude to
25 present it, but very swiftly. Because we're more

1 interested in hearing from California Department
2 of Fish and Game about what they feel is
3 appropriate mitigation rather. And we don't feel
4 that the settlement negotiations are going to be
5 the best evidence of that.

6 But, Mr. Harris, with the admonition to
7 speed through this, go ahead.

8 MR. HARRIS: Thank you.

9 HEARING OFFICER KRAMER: And then think
10 about a good time to break for lunch.

11 MR. HARRIS: Thank you.

12 PRESIDING MEMBER BYRON: Excuse me, Mr.
13 Harris. We've already thought about that, Mr.
14 Kramer. Noon would be the preferred time. We
15 have noon meetings we need to make.

16 HEARING OFFICER KRAMER: Well, there you
17 go. So hearing that, Mr. Harris, would you rather
18 wait until we restart to continue or --

19 MR. HARRIS: Yeah, it might help us
20 further focus this. You know, as I said, the
21 applicant has the burden and this is the way the
22 applicant has chosen to put on the case.

23 It may not be the way the staff would
24 put the case on if they were in our shoes. But it
25 is our application, and that's what we're going to

1 try to do. And over the break we'll try to
2 shorten this considerably.

3 But, we think those facts are important
4 to the Committee's consideration of these issues.

5 HEARING OFFICER KRAMER: All right,
6 then, we will break for lunch, and ask everyone to
7 be back here at 1:00.

8 If somebody else has PowerPoint
9 presentations or something else that's going to go
10 up on the computer projection this afternoon, and
11 you've not loaded those onto the computer that's
12 attached to the projector yet, let's try to do
13 that during the lunch break.

14 Also -- we can go off the record.

15 (Whereupon, at 11:56 a.m., the hearing
16 was adjourned, to reconvene at 1:00
17 p.m., this same day.)

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AFTERNOON SESSION

1:06 p.m.

HEARING OFFICER KRAMER: On the record.
We'll continue the testimony of the applicant's
biological resources panel on the topic of desert
tortoises. Yes, go ahead.

MR. HARRIS: Sorry, Mr. Kessler and I
were talking about borrowing pens, so it seemed
funny to us.

I guess the panel is back. Heard the
direction during the break and so Mr. De Young and
I worked over the lunch hour to greatly streamline
this discussion. I think you'll be pleased with
that. And then we'll make these fine biologists
and other folks available for cross-examination.

DIRECT EXAMINATION - resumed

BY MR. HARRIS:

Q So, Mr. De Young, we were talking about,
you know, mitigation ratios and how you ended up
at three-to-one as a proposal. But three-to-one
at what rates is kind of the issue that I think we
still need to kind of flesh out for the Committee.

So, can you talk a little bit about what
you're looking for with the three-to-one ratio
issue?

1 MR. DE YOUNG: Sure. We thought to
2 bring parity and certainty to this issue of the
3 cost of mitigation at the three-to-one ought to be
4 based on BLM's document numbers. So that we'd, on
5 a dollar-per-acre basis, whatever is given BLM on
6 a one-to-one ratio would be provided to the state
7 at a two-to-one ratio.

8 I do understand that in the DRECP the
9 state is moving -- CDFG is moving towards a in-
10 lieu fee program. We happen to be somewhat ahead
11 of that curve.

12 I'll also note that unlike our proposal
13 was to do an in-lieu fee at the same rate, as I
14 mentioned, what staff is asking for is acquisition
15 of land, up to 8000 acres of land. And at an
16 estimated cost of 25 million.

17 So, on the one hand we have BLM
18 compensation at one-to-one at 3.5 million, 3.7
19 million. The number is still not finalized. And
20 the state requirement of 25 million.

21 MR. HARRIS: So there's been that
22 insistence on acquisition. And what was the
23 number, again, how many acres approximately?

24 MR. DE YOUNG: Eight thousand acres of
25 land.

1 MR. HARRIS: Okay, to be acquired. Will
2 these properties -- well, actually the project
3 site on federal land here, will that be lost in
4 perpetuity?

5 MR. DE YOUNG: No, in fact it will not
6 be lost in perpetuity. Under federal law we have
7 a requirement to not only close the site, meaning
8 removing all structures that are on the site, we
9 also have an obligation to bond additional funds
10 for restoration and rehabilitation of the site
11 post-closure.

12 MR. HARRIS: So what do you need, then,
13 to be able to build the site?

14 MR. DE YOUNG: Quite simply, and this
15 has been our message all along, we need certainty.
16 We also need parity that the state requirements
17 and federal requirements ought to have some
18 relationship to each other.

19 We need to know exactly what our
20 mitigation obligations will be. As I said, we
21 simply can't have open-ended mitigation
22 requirements and expect to finance this project.

23 MR. HARRIS: We kind of stumbled through
24 this by looking at the settlement agreement, and
25 then we came back to bio-17, sort of implementing

1 that settlement agreement.

2 So, is the certainty you're looking for,
3 is that reflected in your proposed bio-17?

4 MR. DE YOUNG: Yes, it is.

5 MR. HARRIS: At this point I'm going to
6 make the panel available for cross-examination.
7 We do have some fine desert tortoise experts
8 available.

9 But in the applicant's view those issues
10 are pretty straightforward from the scientific
11 perspective, and that's part of the reason we
12 wanted to spend the time talking about these
13 mitigation ratio issues and the parity issues.

14 So, I'll make the panel available for
15 cross-examination.

16 HEARING OFFICER KRAMER: Staff, any
17 questions?

18 MR. RATLIFF: Yes, and my intent is to
19 address these questions to the biologists on the
20 panel. And I'm not sure to which witness I
21 address them, but I address them, I guess,
22 principally to Mr. Cleckler, as I understand that
23 he's the author of the testimony regarding the
24 desert tortoise issues and mitigation
25 requirements.

1 MR. HARRIS: Actually, point of
2 clarification on that. You want to explain,
3 various members of the panel, your roles? And
4 actually, Dick, if you don't mind I haven't had
5 these guys give their qualifications. Do you mind
6 if I --

7 MR. RATLIFF: No.

8 MR. HARRIS: -- as part of that, if we
9 just have each of the panelists kind of give their
10 qualifications? And that'll help clarify who the
11 questions --

12 CROSS-EXAMINATION

13 BY MR. RATLIFF:

14 Q Yes, --

15 MR. CARRIER: I'll start. I'm John
16 Carrier; I'm the Project Manager for this project.
17 So I provide the general overview and oversight
18 and review and direction. I'm not a biologist; I
19 just have the overall view.

20 MR. COCHRAN: Mark Cochran. I am a
21 biologist, so I don't need to give my r, sum, here
22 or anything. Just basically my role on the
23 project has been assisting in the preparation of
24 the biological assessment; the translocation-
25 relocation plan; senior review. Also senior

1 review with the raven management plan.

2 And just sort of -- I've worked with BLM
3 and the Fish and Wildlife Service in the past.
4 I've been a resource on senior review and the
5 work, I'd basically say.

6 MR. CARRIER: Let me make one point of
7 clarification, too, before we go on to John
8 Cleckler. The actual AFC section was written by,
9 I think it was Robert Hernandez, who is no longer
10 -- Ray Romero, Ray Romero, who is no longer with
11 the company. And so none of the biologists here
12 actually wrote that, but they've been writing and
13 involved in the subsequent plans, and involved in
14 the project since that time. Revisions.

15 MR. CLECKLER: John Cleckler, biologist
16 CH2MHILL. And as John stated, like Mark, I came
17 in after the AFC was prepared. I worked on some
18 of the response to data requests and drafted the
19 biological assessments, along with BLM. And also
20 worked on the translocation plan and the raven
21 management plan.

22 DR. SPAULDING: I'm Geoff Spaulding; I'm
23 a Senior Scientist with CH2MHILL. One of the hats
24 I wear is as an arid lands ecologist, I have 35
25 years of experience in the Mojave Desert of

1 California and Nevada.

2 I started working in the Clark Mountain
3 Range -- on the Clark Mountain Range in the mid
4 '70s. And I've been working intermittently in the
5 area since then.

6 I'm a former research professor of
7 botany at the University of Washington.

8 HEARING OFFICER KRAMER: Do you recall
9 Mr. Ratliff's question?

10 MR. CARRIER: So, if you want to just
11 ask your question we can kind of direct it among
12 each other, depending on who's best probably
13 qualified to respond. Will that work for you?

14 MR. RATLIFF: Certainly, although I
15 would like to ask each of the biologists, starting
16 with Mr. Spaulding, could you tell us what
17 experience you've had doing work that's related to
18 desert tortoise issues?

19 DR. SPAULDING: Yes. Both in research
20 for my masters and in research for my PhD, which I
21 received in 1981, my research was directed at arid
22 lands ecosystems. And among other things, one of
23 the focuses of my studies has since then been on
24 carrying capacity and how plant species diversity,
25 or species richness and implied productivity

1 relates to carrying capacity.

2 MR. RATLIFF: Could you -- Cleckler, I
3 believe it is, could you also tell us?

4 MR. CLECKLER: Yes, early on in my
5 career I was primarily a desert tortoise
6 biologist. And I've worked on a number of
7 projects doing clearance surveys and that sort of
8 thing.

9 Actually my first big job was working on
10 the Kern River gas pipeline that goes adjacent to
11 the site.

12 And since then the last few years have
13 been more of working more in the regulatory side
14 of things.

15 MR. RATLIFF: Yes. In what recovery
16 areas have you worked in in the Mojave for the
17 desert tortoise?

18 MR. CLECKLER: I've worked throughout
19 the western Mojave. Have a fair amount of
20 experience in Fort Irwin area. And I've worked on
21 the Kern River gas pipeline all the way from Utah
22 to Barstow. And the same thing with the Los
23 Angeles Department of Water and Power -- was it
24 the Boulder transmission line?

25 MR. SPEAKER: Mead-Adelanto?

1 MR. CLECKLER: Yes, Mead-Adelanto, which
2 followed a similar route through Las Vegas to
3 Barstow. And I've done some other work in Nevada.
4 This is going back 16 years or so. I've worked
5 throughout Utah, Nevada and California on the
6 tortoise.

7 MR. RATLIFF: And, Mr. Hoffman, could I
8 ask you -- it is Mr. Hoffman, isn't it?

9 MR. COCHRAN: Cochran, C-o-c-h-r-a-n.

10 MR. RATLIFF: Cochran, I'm sorry.

11 MR. COCHRAN: Yeah, I don't want to take
12 too much time. I moved to -- my family moved to
13 Las Vegas in 1965. And that's my first informal
14 encounter with the desert tortoise, hiking and,
15 you know, running around there.

16 My first formal -- and on general
17 biological surveys, you know, up until the, you
18 know, late '80s, just making note of tortoises.

19 Started in 1988, I was working for -- in
20 the late '80s I was working for the Bureau of Land
21 Management, doing an inventory of their lands out
22 in the Kingman district of Arizona and the Lake
23 Havasu district. And that was my first serious --
24 doing those surveys for the BLM and being trained
25 by the BLM, and help assisting in the

1 categorization. Was my first formal, you know,
2 entry into the tortoise world.

3 After that I worked for Ecological
4 Services of the U.S. Fish and Wildlife Service.
5 All of this was happening at around the time of
6 the listing, so it was a real interesting
7 experience being, you know, with the Bureau of
8 Land Management, which at the time was, you know,
9 being criticized for their management of the
10 tortoises, which was, you know, part of the
11 listing process.

12 Worked with the Fish and Wildlife
13 Service, you know, preparing biological
14 assessments. I was in the Phoenix office,
15 ecological services, and kind of viewed as a
16 tortoise expert.

17 At that time, of course, both the Mojave
18 and Sonora population were under consideration for
19 listing. So I went back out where I'd done my
20 bighorn research, I was in the Copa (phonetic)
21 National Wildlife Refuge, and assisted the Fish
22 and Wildlife Service in doing their inventories of
23 their land.

24 I mean they found, while they were
25 criticizing the BLM for being deficient in doing

1 inventories and categorizing their habitat, turned
2 out the Fish and Wildlife Service was a little
3 remiss in that regard, as well.

4 After that I went back into private
5 consulting. And it was just an excellent time to
6 be a tortoise expert. There were just any number
7 of linear projects, transmission lines criss-
8 crossing the Mojave Desert that were coming back
9 off the shelf and being permitted. And they had
10 everything they needed except for compliance with
11 the Endangered Species Act, you know, relative to
12 the listing of the tortoise.

13 During that time period I met Mr.
14 Cleckler and worked on the Kern River gas pipeline
15 project. I have literally walked everywhere from
16 where that line enters tortoise habitat in Utah to
17 Barstow. And I've walked it several times,
18 gathering information for the biological
19 assessment. And then, you know, preconstruction
20 surveys.

21 During the construction I led a crew
22 team working for the Department of Defense in the
23 Chocolate Mountain Aerial Gunnery Range, as part
24 of an EIS on the training range complex EIS
25 changes to their training.

1 You know, led a -- and I could go on and
2 on. Anyway, I spent a lot of time in both the
3 Sonoran and Mojave Desert, both walking, looking
4 for tortoise sign, recording it, documenting
5 habitat. And then writing up biological
6 assessments for either the military or the Bureau
7 of Land Management.

8 MR. COCHRAN: Is that sufficient or --

9 MR. RATLIFF: Entirely, yes. Thank you.

10 MR. COCHRAN: Okay.

11 MR. RATLIFF: I believe the desert
12 tortoise was listed federally as an endangered
13 species in 1989, is that correct?

14 MR. COCHRAN: That sounds right, about
15 that time.

16 MR. RATLIFF: And very shortly
17 thereafter as a state-listed species threatened,
18 as well, is that correct?

19 MR. COCHRAN: That sounds correct, yes.

20 MR. RATLIFF: And recovery plans, as I
21 understand it, were developed shortly thereafter
22 for this species?

23 MR. COCHRAN: 1994 I think is when the
24 final came out, yes.

25 MR. RATLIFF: All right. And, by the

1 way, just to step back --

2 (Telephone interruption.)

3 HEARING OFFICER KRAMER: Hold on a
4 second. Somebody on the telephone has got some
5 background noise in their process, or they're
6 holding a phone and moving it around.

7 If you could try muting yourself, I
8 think the command is star-6. Then you press the
9 same keys to un-mute yourself later. We would
10 appreciate it. We're getting some of your noise
11 in the room here.

12 Go ahead.

13 MR. RATLIFF: Okay. You spoke earlier,
14 I think, perhaps Mr. Carrier did, I'm not sure,
15 that the original author for the AFC is no longer
16 with CH2MHILL--

17 MR. COCHRAN: That's correct.

18 MR. RATLIFF: -- or with this --

19 MR. COCHRAN: That gentleman's name was
20 Ray Romero, another team member on the Kern River
21 project. Yeah, he's no longer with the company.

22 MR. RATLIFF: Who is actually sponsoring
23 that document into evidence, then? If I could get
24 the identification of that?

25 MR. COCHRAN: We're all sponsoring the

1 document in terms of --

2 MR. RATLIFF: You're all --

3 MR. COCHRAN: -- the evidence, yeah.

4 MR. RATLIFF: -- you all are. Okay.

5 Just wanted to get clarity on that.

6 And, again, I've got wonderful expertise
7 here and I don't know who to address the question
8 to, but the question that I would like to ask you
9 is a very general one, but an important one. And
10 that is how do you think the desert tortoise is
11 doing in terms of its recovery, in accordance with
12 the recovery plan?

13 MR. CLECKLER: My understanding is there
14 is a great deal of work left to do. And very few
15 of the recovery actions in the 94 plan have been
16 funded. And there's reasonably that there are
17 some recently there, in the last 10 or 20 years
18 there's been some significant die-offs in some
19 areas.

20 MR. RATLIFF: So would you say that the
21 recovery plan goals and expectations haven't been
22 realized yet?

23 MR. CLECKLER: Yes, it looks as if the
24 recovery plan has not come anywhere close to being
25 implemented. The lack of funds for any of the

1 recovery actions.

2 MR. RATLIFF: Okay.

3 MR. COCHRAN: As you're probably aware,
4 there is a draft revised recovery plan 2008 that's
5 out that speaks to that. And my general, you
6 know, just broad, 30,000 feet, looking at it was
7 that in terms of, you know, management of the, you
8 know, desert wildlife management areas, et cetera,
9 the different recovery actions, there was need to
10 be more coordination and cooperation and perhaps
11 focus on that, on the recovery goals, or recovery
12 actions.

13 MR. RATLIFF: Is there anything in that
14 new recovery plan that is distinctly different
15 from the earlier recovery plan?

16 MR. COCHRAN: In a really quick review
17 nothing jumped out at me as being, you know, that
18 different. I mean it's still the same approach.
19 The reserve design, desert wildlife management
20 areas. They have a designation of different
21 recovery units which are, you know, comparable --
22 significant units. I didn't see any major changes
23 in those delineations.

24 It looked, you know, fairly,
25 substantially similar.

1 MR. RATLIFF: I mean you've worked on a
2 number of projects, it sounded like, when you were
3 telling us about your experience about projects in
4 the desert that affected desert tortoise. Have
5 there been a large number of projects in the
6 Mojave that have affected desert tortoise, in your
7 experience in the last ten years?

8 MR. COCHRAN: Certainly. I mean any
9 project, I mean almost by definition, in the
10 Mojave Desert is a main effect on the desert
11 tortoise. And as to the level of the effect or
12 the magnitude of the impact, you know, that just
13 obviously depends on the project.

14 I mean, don't want to go too far afield,
15 but I think the growth and development of Las
16 Vegas, Nevada, you know, is an example of a, you
17 know, major impact to tortoise habitat.

18 Most of the projects I've worked on are,
19 you know, linear facilities. And as long as they
20 don't, you know, cause new access to the area, I
21 haven't viewed those as a major impact that would,
22 on more of a global scale, be seriously impacting
23 the species.

24 MR. RATLIFF: Some projects result in
25 translocation or relocation. Have you worked on

1 projects involved such?

2 MR. COCHRAN: Yes, I have. And, again,
3 most of my experience, I mean I look at it this
4 way, not to be cute, but there's polygons, you
5 know, and there's lines. And most of my projects
6 have been linear facility, you know, on lines
7 where fortunately, you know, if you have a 100-
8 foot right-of-way, and the tortoises need to be
9 cleared and moved out of there, it's very simple
10 to move them a shorter distance, you know, like
11 within 300 feet.

12 So the tortoise is not being moved out
13 of its home area. It's not being moved to an area
14 that, you know, it's unfamiliar with. They use,
15 you know, more than one burrow, so the hope is
16 it's still its same, you know, home range. And
17 there will still be a suite of burrows, you know,
18 available to it, other than that one -- assuming
19 it was excavated out of a burrow, you know. You
20 know, somewhat helps out with the loss of the
21 burrow. Hopefully there are some more in the area
22 available to that tortoise. Again, linear
23 facilities.

24 MR. RATLIFF: How effective or how
25 successful would you say these translocation or

1 relocation plans, how are they, generally
2 speaking?

3 MR. COCHRAN: Sir, I can't really speak
4 to that. You know, once the tortoise is moved out
5 of harm's way and, you know, somebody else then is
6 involved with tracking them, or checking on their
7 survivorship. My gut feeling is -- I shouldn't
8 give gut feelings, it's given, you know, the short
9 move, I mean I think the success is you know,
10 fairly high.

11 MR. RATLIFF: Have there been any
12 measurements in mortality that suggest how
13 successful some of the translocations have been?

14 MR. COCHRAN: Yeah, maybe Jack can speak
15 to that. I'm not up to speed on the success of
16 the --

17 MR. CLECKLER: Not on the project. I,
18 like Mark, most of the projects I've worked on
19 have been linear projects where the construction
20 is moving through and it's active restoration
21 right behind it.

22 And so when you move tortoises it's a
23 short distance. And at least in the time when I
24 had most of my experience, those weren't
25 situations where there was a detailed, rigorous

1 monitoring afterwards. There weren't transmitters
2 put on tortoises for those sorts of movements.

3 MR. RATLIFF: By comparison with the
4 projects you've worked on, is the Ivanpah project
5 a large project?

6 MR. CLECKLER: As one contiguous piece,
7 yes.

8 MR. COCHRAN: In my experience it's a
9 large project, but on that Kern River project,
10 just in terms of the number of tortoises involved,
11 I mean I lose track of the numbers, but in terms
12 of the number of tortoises that were moved on that
13 project, I mean, it's in the hundreds. Would you
14 say that's right, John?

15 MR. CLECKLER: Yes, and I think the take
16 authorization was for close to 40 tortoises on
17 that project.

18 MR. COCHRAN: Right, so in terms of
19 large number of tortoises being moved, with a crew
20 of up to about 90 biologists, I mean that actually
21 was at a larger scale.

22 I mean, quite frankly, I mean I feel
23 very fortunate that 25 tortoises, that's a
24 relatively small number of tortoises relative to
25 other efforts that, you know, John and I have been

1 involved in.

2 MR. RATLIFF: What was the acreage on
3 the Kern River project?

4 MR. COCHRAN: A good question, I don't
5 know. I don't remember, you know, the acreage
6 that -- the right-of-way. Okay, let's just say
7 it's going from, in tortoise habitat it did a
8 great transect right through, you know, the range
9 of the species.

10 Again, as the line entered tortoise
11 habitat in southwest Utah all the way to
12 Bakersfield, Nevada, the right-of-way, just to
13 give you an idea, was anywhere from 75 to 300 feet
14 wide. So if somebody could do the math there you
15 get an idea of the number of acres, you know,
16 involved there.

17 MR. RATLIFF: Could you describe what
18 the effect of human encroachment on the tortoise
19 habitat has on the species?

20 MR. COCHRAN: Human encroachment, we're
21 just winging it here, but I mean to my way of
22 thinking I know the City of Las Vegas, Tucson, you
23 know, urban areas, just more people in the desert.
24 It's just not a good thing.

25 And just one aspect of it, that's more

1 people out there collecting tortoise and taking
2 them home, you know, for pets. You go to any
3 urban area in the southwest and there's just a
4 huge resident population of captive tortoises
5 there. Certainly they're reproducing or whatnot,
6 but I just know over the years a lot of people
7 have been collecting tortoises in the desert. And
8 I think that's, you know, basically they don't go
9 together well.

10 MR. CLECKLER: Right. And also the
11 offroad -- areas of excessive offroad use and any
12 margin of residential and industrial areas.

13 MR. RATLIFF: What about those margins?
14 Can you tell us a little bit more about what those
15 margins mean?

16 MR. CLECKLER: The margin of a
17 residential area in Las Vegas, you expect there to
18 be a bit of a sink, population sink near the
19 margins of those based on offroad activity,
20 nonnative predators, a number of different
21 factors.

22 MR. RATLIFF: Mr. Spaulding, I feel like
23 I'm neglecting you. I would like to ask you to
24 answer that question, too, just to get you to
25 speak.

1 DR. SPAULDING: Certainly. I feel that,
2 you know, in general if you wanted a term to use,
3 the term would be deleterious.

4 MR. RATLIFF: The term to mean the
5 effect of --

6 DR. SPAULDING: The edge effect of --

7 MR. RATLIFF: -- the edge effect --

8 DR. SPAULDING: -- residential
9 development on desert tortoises.

10 MR. RATLIFF: Is it only residential
11 effect or is it also, I mean can it be from other
12 things that increase human presence in tortoise
13 habitat, such as the Primm Golf Course?

14 DR. SPAULDING: To the extent that edge
15 effects, if you want to call them that, affect
16 desert tortoises, then activity around the edges
17 of human development would be directly
18 proportionate to those deleterious effects.

19 If, for example, our golf course users
20 never go outside the golf course proper, one would
21 expect less edge effect than around a residential
22 area.

23 MR. RATLIFF: Does the effect of human
24 development also bring additional predators, such
25 as ravens, into the tortoise habitat?

1 DR. SPAULDING: Certainly. I think I
2 could speak for all my colleagues in that that is
3 indeed the case.

4 MR. COCHRAN: Just if you're adding
5 water to the environment. If you have, you know,
6 open landfills. I think in terms of ravens,
7 that's what I think of in terms of human
8 development, in terms of the deleterious effect.

9 There's a lot more ravens now than there
10 used to be, and that's because water has been
11 added to the desert and landfills. That's what
12 allows them to persist in an environment where
13 they would normally be at much lower levels.

14 MR. RATLIFF: Mr. Cochran, you said you
15 worked for BLM on tortoise issues, and you heard,
16 in fact there was testimony from Mr. De Young
17 previously using the term one-to-one ratio for
18 habitat mitigation.

19 Is it your understanding that BLM
20 actually acquires habitat based on that one-to-one
21 ratio? Or is that something else?

22 MR. COCHRAN: Frankly, I don't know. I
23 can't answer that question as to what's done with
24 the in-lieu fees, you know, acquired by the BLM.
25 You know, to what extent it would be used for, you

1 know, acquisition or other management actions.

2 MR. RATLIFF: Mr. Spaulding, do you know
3 whether that's common for BLM to actually acquire
4 lands with the mitigation fees that they take on
5 the one-to-one ratio or --

6 DR. SPAULDING: No, sir, I do not.

7 MR. RATLIFF: Okay. Mr. Cleckler?

8 MR. CLECKLER: No, I'm not aware.

9 MR. RATLIFF: I'm sorry, I mispronounced
10 your name, and I apologize for that. Mr.
11 Cleckler, I believe it is, yes?

12 MR. CLECKLER: Yes.

13 MR. RATLIFF: Okay. In your
14 professional opinion is it helpful to preserve
15 habitat permanently for desert tortoise if you're
16 trying to facilitate the recovery of the species?

17 MR. COCHRAN: Yes, and that's one of the
18 recovery actions in the new draft plan.
19 Acquisition, preservation, as well as a number of
20 other recovery actions.

21 MR. RATLIFF: Mr. Cochran, do you have
22 anything to add to that?

23 MR. COCHRAN: Yes. I mean that's
24 obviously tortoises aren't a species where you're
25 doing a lot of management, preservation and the

1 reduction of anthropomorphic effects is always a
2 good thing.

3 MR. RATLIFF: Would it be fair to say
4 that the overall amount of habitat in which desert
5 tortoise currently reside is growing smaller?

6 MR. COCHRAN: To me they only grow
7 smaller.

8 MR. RATLIFF: No one's making new
9 habitat then?

10 MR. COCHRAN: I'd say some -- nobody's
11 making new habitat. I mean I would hope and
12 assume some habitat is being restored as, you
13 know, the anthropomorphic deleterious effects are
14 being removed. That, you know, some habitat would
15 be recovering and improving.

16 MR. RATLIFF: Okay.

17 MR. COCHRAN: I'm getting speculative
18 here, though.

19 MR. RATLIFF: Okay. Are you familiar in
20 your work as a biologist with efforts to try to
21 set aside additional offset lands for development
22 to try to permanently preserve habitat as a result
23 of projects?

24 MR. COCHRAN: I'm not involved in that.
25 Most of my involvement, like with the Agency, has

1 been on land exchange. You know, BLM having a
2 parcel, you know, in Lake Havasu, Nevada, and
3 exchanging that for some other land, you know, to
4 allow that to be developed. Exchanging that for
5 land in their checkboard land to make their lands
6 more manageable. But I have not been involved in
7 land acquisition.

8 MR. RATLIFF: Mr. Cleckler, are you
9 familiar with projects to offset such
10 developments?

11 MR. CLECKLER: I haven't been involved,
12 but I know that -- and I don't know the details,
13 but I know that -- I am aware of some of the
14 Desert Tortoise Preserve Committee's efforts to
15 acquire lands and portions of that acquisition
16 have been through mitigation or compensation for
17 habitat loss.

18 MR. RATLIFF: Are you familiar with the
19 Energy Commission's typical practice when dealing
20 with issues involving endangered species habitat,
21 as to the acquisition of offset lands? Have you
22 ever had any familiarity with that?

23 DR. SPAULDING: Yes, sir, I think to a
24 certain extent all of us have had some familiarity
25 with that practice.

1 MR. COCHRAN: I'd just say I have not
2 had much familiarity with that practice.

3 MR. RATLIFF: Mr. Spaulding, you sound
4 like you are aware of what the Energy Commission
5 has done in the past with regard to requirements
6 for habitat, based on cooperation with the
7 Department of Fish and Game and the
8 recommendations of the department.

9 DR. SPAULDING: In a limited number of
10 circumstances, yes.

11 MR. RATLIFF: Are you familiar with any
12 of the mitigation efforts for desert kit fox
13 starting in the 1980s under the California
14 Endangered Species Act?

15 DR. SPAULDING: No, sir, I'm not.

16 MR. RATLIFF: Okay. Are you familiar
17 with instances where the Department of Fish and
18 Game has required offset mitigation for impacts to
19 desert tortoise habitat in the Mojave?

20 DR. SPAULDING: Yes, sir, I am.

21 MR. RATLIFF: And can you describe what
22 your understanding of that mitigation was?

23 DR. SPAULDING: My familiarity is not
24 great, but I do understand that offsets have been
25 required or at least requested.

1 MR. RATLIFF: And do you know if those
2 offsets were required at a ratio to the land which
3 was actually taken by the project?

4 DR. SPAULDING: Could you clarify that
5 question, please?

6 MR. RATLIFF: Yes. Do you know if the
7 land which was required to be preserved for desert
8 tortoise habitat in those instances that you are
9 familiar with, if the land was required to be at a
10 ratio of, say, for instance three-to-one or one-
11 to-one or two-to-one, are you familiar with the
12 use of ratios for such habitat?

13 DR. SPAULDING: I am aware of the fact
14 that ratios are used.

15 MR. COCHRAN: My familiarity with it is
16 maybe not relevant to this project. The projects
17 in Nevada I'm familiar with the one-to-one ratio
18 in noncritical habitat. Outside of critical
19 habitat, you know, one-to-one ratio and in-lieu
20 fees. That's pretty much what you're dealing with
21 in Clark County, Nevada.

22 My other projects have been, you know,
23 largely federal projects, the linear projects.
24 And this is going back awhile, but it was
25 generally the different ratios and, you know, one-

1 to-one or anywhere from one-to-one to three-to-
2 one, depending on whether it was in previously
3 disturbed or previously undisturbed, in critical
4 habitat, or you know, outside of critical habitat.

5 MR. RATLIFF: Some have described the
6 Mojave Desert environment as a fragile ecological
7 environment. Mr. Cleckler, do you agree with that
8 statement?

9 MR. CLECKLER: Yes.

10 MR. RATLIFF: I'm told that you can
11 still see Patton's training tanks when you fly
12 over it, is that -- I don't know if that's true,
13 but perhaps you do, from the World War II training
14 that he did there.

15 MR. CLECKLER: Yes, and I know some of
16 those sites are proposed for solar development, as
17 well, some of Patton's training camps --

18 MR. RATLIFF: The Rice Project --

19 MR. CLECKLER: -- and, yes. And I've
20 been in -- I worked out of Fort Irwin, an area
21 (indiscernible) called it, having trained in a
22 number of years. And although a lot of it has
23 come back, you can still see some of the old
24 tracks.

25 MR. RATLIFF: One of the things that you

1 filed in your rebuttal testimony most recently
2 were maps showing the boundaries of the desert
3 wilderness management areas, the DWMAs.

4 I assume you all three are familiar with
5 those maps of the DWMAs? And I --

6 DR. SPAULDING: I would defer, just to
7 correct you, sir, on that assumption. I would
8 defer that to one of my colleagues. I am not
9 familiar with the maps of the DWMAs.

10 MR. RATLIFF: Okay, thank you. I ask
11 this then generally to whomever can answer it.
12 What proportion of the Mojave is actually within
13 those DWMA configurations?

14 Let me put that differently, let me
15 restate it. What proportion of desert tortoise
16 habitat, if you know or have any rough measure of
17 it, is within the DWMAs that are indicated on
18 those maps?

19 MR. COCHRAN: You know, I don't know.
20 But I think that number could easily be drawn out
21 of that 2003 draft, revised recovery plan.

22 MR. RATLIFF: Right.

23 MR. COCHRAN: Because I do recall, you
24 know, reviewing that, tables of, you know, at
25 least enumerating the amount of land in the DWMAs,

1 the ACEC's, you know, critical habitat.

2 I don't recall, I mean it is a little
3 bit of a tricky question, what percentage of that
4 is tortoise habitat. Because then you have to
5 come up with an estimate of total tortoise
6 habitat --

7 MR. RATLIFF: Sure.

8 MR. COCHRAN: -- in the region or area.
9 There may be numbers there, but I don't recall
10 them.

11 MR. RATLIFF: Can you tell me the idea
12 behind the creation of the DWMAs?

13 MR. COCHRAN: Yes, I can. I think in
14 reviewing the 1994 recovery plan and the current
15 one, the idea was -- I'm just going to, you know,
16 try again at 30,000 feet here -- is, you know,
17 they wanted to, obviously the recovery plan, have
18 a plan for, you know, recovery, the species
19 actually recovering the Mojave population of the
20 desert tortoise. They decided not to list the
21 tortoises on the other side of the Colorado River.

22 And what they were attempting to do is
23 come up with a reserve design, you know, with a
24 solid biological design to allow for recovery of
25 the species.

1 They divided the species range up into
2 evolutionary significant units where the tortoises
3 were consider to be, you know, have similar
4 morphology, genetics, behavior, et cetera.

5 And the reason for that was to have a
6 reserve design that would capture, and therefore
7 preserve, you know, that genetic integrity. So
8 that you didn't have a reserve design that was
9 biased or had, you know, a lot of reserves and,
10 you know, one type of tortoise.

11 So the idea was then to designate these
12 desert wildlife management areas, which I think
13 roughly were guided somewhat by the definition of
14 critical habitat, so they didn't reserve design
15 perspective. That's where you focus your
16 management, your preservation, et cetera, to
17 hopefully, you know, assure the recovery of the
18 species.

19 MR. RATLIFF: If land is within a DWMA,
20 but it is desert tortoise habitat, do you think
21 it's still important to the recovery of the desert
22 tortoise?

23 MR. COCHRAN: The desert tortoise being
24 a threatened species, you know, federally
25 threatened species, obviously the species is

1 protected wherever it occurs.

2 I do think that there was a decision,
3 again in rereading the 2008 plan, to focus effort
4 of recovery on the desert wildlife management
5 areas.

6 So offer an opinion, if the tortoises
7 were substantially declining on these large
8 reserves, certainly the more the merrier. That
9 was the intent, to focus, I believe, conservation
10 preservation efforts in, you know, the DWMAs, the
11 ACECs, you know, those areas.

12 Did I answer your question?

13 MR. RATLIFF: I think it was a pretty
14 good answer actually. Thank you.

15 Mr. Cleckler, do you have anything to
16 add to that, or Mr. Spaulding? No, okay.

17 Well, I'll ask you a hypothetical to all
18 three of you, but it is this. If it was your job,
19 if it was your mission, if you weren't working
20 anymore as consultants, but were given this task
21 by the powers on high, to oversee the recovery of
22 the desert tortoise, what would you do?

23 MR. COCHRAN: I would implement the
24 recovery plan.

25 MR. RATLIFF: Could you be a little more

1 specific?

2 MR. COCHRAN: I'm not being cute here.
3 The specifics, I believe, are in the recovery
4 plan.

5 MR. RATLIFF: So you think the recovery
6 plan, if it were implemented, would be effective
7 then?

8 MR. COCHRAN: There's no guarantees.
9 Could you repeat the question?

10 MR. RATLIFF: Well, again, I was --

11 MR. COCHRAN: Oh, okay, no, I got it
12 now. I got it now, yeah.

13 MR. RATLIFF: -- I was making you the
14 hypothetical king of the universe here on --

15 (Laughter.)

16 MR. RATLIFF: -- the recovery of the
17 desert tortoise, because I wanted to see what you
18 think ought to be done for the desert tortoise
19 preservation.

20 MR. COCHRAN: But, again, yeah,
21 implement the recovery plan. And, again, I think
22 the focus should be on the reserves, the DWMAs. I
23 mean they're large, you know, areas. I believe in
24 the northern-eastern recovery unit there's one
25 point 3 million acres, or something like that.

1 There's millions of acres.

2 And that's where you would want to focus
3 your recovery management efforts, preservation.

4 And I would -- yeah, if I were doing it I would
5 find a funding mechanism, you know, from that.

6 I'd maybe go to President Obama and have this be
7 part of the bailout package. Bail out the
8 tortoises rather than the banks.

9 MR. RATLIFF: So would you say that
10 funding is one of the critical issues in terms of
11 trying to provide preservation?

12 MR. COCHRAN: Just remembering working
13 at the BLM, I've got to believe funding's always
14 an issue for them to do what they would like to do
15 to implement their various plans. You know,
16 funding's always a shortfall.

17 Oh, just one thing, in terms of funding,
18 sure, you know, if I were running the show, yeah,
19 definitely, I would want the BLM to have a lot
20 more money for law enforcement.

21 I mean we here, most of us here are
22 somewhat aware of the desert tortoise. And if we
23 encountered one we wouldn't pick it up and take it
24 home. A lot of -- so it's education. But a lot
25 of the public isn't aware of it.

1 I think it's important to have some law
2 enforcement present out there. That costs a lot
3 of money. And my understanding is that the BLM is
4 not -- I mean they do the best they can, but they
5 don't have very many rangers out there.

6 I mean I spend a lot of time out there.
7 It's very seldom you encounter one. So you could
8 be out there collecting tortoises all day probably
9 without anybody noticing.

10 MR. RATLIFF: So that one of the
11 problems the BLM has is that they have these DWMAs
12 but they don't have any money to do things with
13 them?

14 MR. COCHRAN: I'd be speculating on
15 that, but yeah, I think that's likely the case.

16 MR. RATLIFF: And, Mr. Cleckler, do you
17 have an opinion about that?

18 MR. CLECKLER: I see funding as a major
19 issue, as well. And I haven't seen that many good
20 examples of recovery actions that have been
21 implemented. And I don't think we know enough,
22 also about some of these large die-offs that we're
23 seeing to really know how to address the overall
24 picture with recovery maybe outside of some of the
25 things that we do know with developments.

1 And I think there's a number of new
2 recovery actions that have yet to be funded to
3 know whether or not they would be effective. I
4 think there's a lot of things we can do with road
5 effects and trying to establish more conductivity.

6 MR. RATLIFF: Mr. Spaulding, when you
7 lean forward I think you're going to say
8 something, so feel free to, but you don't have to.

9 DR. SPAULDING: Just with your
10 indulgence, I was actually wanting to look back to
11 one of your previous questions about the relative
12 fragility of the Mojave Desert.

13 MR. RATLIFF: Sure.

14 DR. SPAULDING: With all due respect to
15 my colleagues, I do disagree with the fact that
16 the Mojave Desert is any more or less fragile than
17 any other ecosystem.

18 The things that capture our attention
19 such as persistence of Patton's track, or even the
20 persistence of prehistoric trails, capture our
21 attention from the point of view of western
22 European culture and something we're not used to.

23 But, I would challenge anyone to suggest
24 that the Mojave Desert is, let's say, more fragile
25 than an eastern deciduous forest, for example.

1 As a point of fact, in evolutionary
2 recent time of approximately 10,000 years ago, the
3 Mojave Desert, as it exists now, did not exist.
4 There was no creosote bush anywhere within the
5 current range of the northern Mojave Desert.

6 Creosote arrived approximately 8000
7 years ago. And the Mojave Desert scrub
8 communities after the end of the last ice age
9 shows a relative recency for that biotic system.

10 MR. CLECKLER: My answer on that issue
11 is based more on relative recovery.

12 MR. RATLIFF: And that was the focus of
13 my question, --

14 MR. CLECKLER: Yeah.

15 MR. RATLIFF: -- is how does it recover
16 from activity and grading and so forth. And, Mr.
17 Spaulding, you don't disagree with that, do you?
18 Or do you?

19 DR. SPAULDING: In terms of rates of
20 recovery of successional processes? I'm sorry,
21 I'm just seeking a clarification here.

22 MR. RATLIFF: I'm not sure what you're
23 talking about, so I can't clarify it for you.

24 (Laughter.)

25 DR. SPAULDING: Well, I'll allow you to

1 move on if we can't focus on that.

2 MR. RATLIFF: Well, I am curious about
3 your answer, because the AFC, itself, says that
4 it's a fragile habitat. And I'm wondering -- you
5 guys are sponsoring that into evidence, and at
6 least some of you seem to think it is, and some of
7 you maybe don't think it is. And I'm curious
8 about that.

9 DR. SPAULDING: Well, fragility is
10 certainly a qualitative term, and it's strongly
11 influence by our own cultural orientation toward
12 natural systems that, in all honesty, most of us
13 don't spend much time with.

14 MR. RATLIFF: When you blade desert
15 habitat how long does it take to recovery
16 typically?

17 DR. SPAULDING: We have on file, I
18 think, fair good case examples associated with the
19 construction of I-15, that areas that were bladed
20 and denuded and not revegetated in the early
21 1960s, to all intents and purposes, look like
22 undisturbed communities until you really get down
23 on the ground, especially with aerial remote
24 imagery and look at it.

25 So substantial recovery in less than

1 five decades.

2 MR. RATLIFF: Five decades, did you say?

3 DR. SPAULDING: That's correct.

4 MR. RATLIFF: Okay.

5 MR. COCHRAN: Might I add something?

6 Yeah, just my experience and this is just, you
7 know, just walking around a lot and looking and,
8 you know, a lot of pipelines where they're moving
9 the pipeline to go next to someplace that was
10 disturbed, you know, several years ago.

11 And my general take on it is this. And
12 these are pipelines that were built back in the
13 '50s and '60s, where I can guarantee they were not
14 dealing with anything like this, in terms of, you
15 know, trying to put it back right.

16 But if they get -- the surface hydrology
17 is right, I mean if there's isn't just rampant
18 erosion, if they've maintained the surface
19 hydrology, the recovery can be, you know, quite
20 good and dramatic.

21 If they didn't, I mean if they didn't
22 take care of the drainages, if it's erosion then
23 it can look bad, I mean, in perpetuity.

24 MR. RATLIFF: You're aware that I think
25 we've had previous discussions, probably, in your

1 presence, that there are a large number of
2 projects proposed similar to Ivanpah, at least in
3 terms of the amount of land that would be needed
4 to implement those projects.

5 Do you think that the cumulative impact
6 of all of those projects, say even 50 percent of
7 them, would be bad for the desert tortoise and its
8 habitat?

9 MR. COCHRAN: It would be impact. It
10 would be a loss of that number of acres. But in
11 my judgment, even that would not be, just to put
12 it in Fish and Wildlife's terms, even that would
13 not -- I mean if they did a biological assessment
14 on all that activity at once, to me that still
15 would not constitute what I would call a jeopardy
16 opinion.

17 I mean I just don't think they could
18 still -- they could make a case in that in their
19 biological opinion. And people forget that's what
20 an opinion is about, is it or is it not going to
21 jeopardize the continued existence of the species.

22
23 Certainly maybe loss of that much
24 habitat, but I wouldn't view it as jeopardizing
25 the continued existence of the species. If that

1 helps put it in a context.

2 MR. RATLIFF: And I think you partially
3 explained what that means, jeopardize the
4 continued existence of the species. That means
5 it's like the last stand, does it not?

6 MR. COCHRAN: That means you don't have
7 a project. Or you need to --

8 MR. RATLIFF: Or you don't have a
9 species, right?

10 MR. COCHRAN: -- alter your project so
11 that it would be a non-jeopardy. And clearly, you
12 know, a jeopardy opinion is likely to be with a
13 species with a much smaller geographical
14 distribution than the Mojave Desert Tortoise.

15 MR. RATLIFF: If we assume then that it
16 would not cause -- that all of these projects
17 would not cause jeopardy for the continued
18 existence of the species, do you think it is
19 likely to make it more likely the recovery plan
20 will succeed?

21 MR. COCHRAN: That's -- I would be
22 speculating a lot. I mean, for one thing, you
23 think, well, gee, you know, if they're developing
24 that much land and they were getting all that
25 compensation and mitigation money, then there

1 would be, relating back to your previous question,
2 perhaps a sufficient amount of funding for the
3 Bureau of Land Management's and others to, you
4 know, manage, you know, their DWMAs.

5 And on balance, I don't know, we could
6 speculate that could be a, positive impact. But,
7 you know, this is getting pretty far afield as to
8 whether the impact of a hypothetical large area
9 being disturbed.

10 MR. RATLIFF: Could I ask you which of
11 you wrote the testimony that was filed as the
12 applicant's testimony which states that no offset
13 habitat should be required because the applicant
14 is required to re-vegetate the site at the end of
15 its project life?

16 MR. HARRIS: Can you point us to a page?

17 MR. RATLIFF: I can.

18 MR. HARRIS: Let me word search -- is
19 this the opening or rebuttal?

20 MR. RATLIFF: Opening. It would be
21 easier to point to the page if you'd actually
22 paginated it, but --

23 MR. HARRIS: That is a good point.

24 MR. RATLIFF: It's under construction
25 impacts and wildlife, about five, six pages into

1 your testimony. This is the testimony filed by
2 the applicant on November 16th. It was about
3 several hundred pages in length and --

4 MR. HARRIS: Is it the first paragraph
5 of the --

6 MR. RATLIFF: Under the summary of
7 testimony about --

8 HEARING OFFICER KRAMER: Which exhibit
9 number --

10 MR. RATLIFF: Yeah, exhibit 65.

11 HEARING OFFICER KRAMER: Okay, 65.

12 MR. RATLIFF: And looks like about,
13 under the summary of testimony it would be one,
14 two, three, four, five, six pages in. You have
15 this statement: Project development -- maybe it
16 would just be easier if I read it to you.

17 "Project development will result in the
18 temporary loss of approximately 4062 acres of
19 habitat for a variety of common and special status
20 wildlife species. However, the site is not lost
21 in perpetuity" in quotes, "since the applicant
22 must restore the project site at the end of the
23 right-of-way grant and provide BLM with a bond as
24 security for site restoration."

25 MR. DE YOUNG: I'm sorry, what's the

1 question?

2 MR. RATLIFF: Who wrote that? Who is
3 the author of that testimony?

4 MR. DE YOUNG: I did. As a team, we --

5 MR. RATLIFF: Okay.

6 MR. DE YOUNG: -- prepared testimony, we
7 review and comment.

8 MR. RATLIFF: Are you aware that this
9 contradicts the testimony that you filed in the
10 AFC? And here we do have a page number
11 fortunately. It's page 5.2-29.

12 And again, maybe it's just easier if I
13 read it to you. I don't know if you have the page
14 at hand, but what it says --

15 MR. DE YOUNG: Please do.

16 MR. RATLIFF: -- and I'd like to read it
17 because I want the Committee to hear it, is that
18 -- starts off with this sentence: Desert systems
19 are ecologically fragile and it will not be
20 practicable to recreate the lost habitat elements
21 exactly 50 years after -- exactly after 50 years
22 of site disturbance. Goals of site rehabilitation
23 after facility closure will be to recreate natural
24 creosote bush dominated habitat."

25 "The purchase and preservation or

1 creation of suitable habitat replacement will be
2 required due to the long-term lapse, more than 50
3 years, is equivalent to a permanent loss of this
4 habitat. The purchase and preservation plan for
5 the permanent loss of habitat will be closely
6 coordinated with BLM, U.S. Fish and Wildlife
7 Service, DFG as part of the desert tortoise
8 mitigation process."

9 MR. DE YOUNG: I do not recall who wrote
10 that in the AFC.

11 MR. RATLIFF: Okay. Did this team also
12 prepare the biological assessment that was
13 provided for this project?

14 MR. DE YOUNG: Mr. Cleckler and --

15 MR. RATLIFF: Okay.

16 MR. DE YOUNG: -- Mr. Carrier prepared
17 the BA.

18 MR. CLECKLER: Yes, along with Charles
19 Sullivan and Larry LePre from BLM.

20 MR. RATLIFF: So each of you worked on
21 the biological assessment, as well? I mean it has
22 CH2MHILL's name on the cover, I know.

23 MR. CLECKLER: I worked on the
24 biological assessment.

25 DR. SPAULDING: And for clarification, I

1 was the lead author on the re-vegetation
2 rehabilitation plan.

3 MR. RATLIFF: I refer you to page 8-2 of
4 that document, it's paragraph 8.1.1 --

5 PRESIDING MEMBER BYRON: Mr. Ratliff,
6 just a little bit closer to you there so --

7 MR. HARRIS: Can we get another copy of
8 the AFC for my witnesses real quick?

9 MR. RATLIFF: I'm talking about the
10 biological assessment. The applicant has filed --

11 PRESIDING MEMBER BYRON: Got to be into
12 the microphone.

13 MR. CARRIER: Which version are you
14 referring to? The one that was prepared by us or
15 the one that was prepared by Larry LePre?

16 MR. RATLIFF: It says CH2MHILL, prepared
17 by CH2MHILL.

18 MR. CARRIER: And the date?

19 MR. RATLIFF: December 2009.

20 MR. CARRIER: And does it have BLM on
21 the cover?

22 MR. RATLIFF: It does, it does have
23 BLM's --

24 MR. CARRIER: Oh, then that's Larry
25 LePre's version.

1 MR. RATLIFF: Okay. But it does also
2 state that it's prepared by CH2MHILL. Is that
3 incorrect?

4 MR. DE YOUNG: The biological assessment
5 is a BLM document. We contributed portions of the
6 document, as requested by BLM, over time. There
7 were a number of revisions to it, and there were
8 actually at BLM and at CH2MHILL there were a
9 number of different authors, as well.

10 MR. RATLIFF: Okay.

11 MR. COCHRAN: Perhaps I can clarify
12 something on that. Generally on those biological
13 opinions it may say, you know, prepared by, you
14 know, CH2MHILL on behalf of the applicant, you
15 know, for the BLM or something like that.

16 But basically it's third-party
17 contractors. We are preparing that not at the
18 direction of the applicant, but at the direction
19 of the BLM. You know, at some point when the BA
20 is sent to the Fish and Wildlife Service to
21 initiate the formal consultation, then it's wholly
22 a BLM document, with them wholly being responsible
23 for the content and everything in it.

24 But, you know, my mind, say when a
25 biological assessment is being prepared by us, a

1 third-party contractor, it's at the direction of
2 the BLM. We're trying to read the BLM's mind and,
3 you know, know what they would want in their
4 biological assessment. Otherwise we're going to
5 have a lot of revisions and edits to it.

6 MR. RATLIFF: Well, thank you for that
7 clarification, that makes sense to me. It does
8 say on the cover that it's prepared on behalf of
9 the BLM. I'm --

10 MR. DE YOUNG: Yeah, it ultimately --

11 MR. RATLIFF: -- sorry, it says --

12 MR. DE YOUNG: -- is their document.

13 MR. RATLIFF: -- prepared for BLM, and
14 it says prepared by CH2MHILL on the cover. And
15 that's what I was looking at.

16 MR. DE YOUNG: Mr. Ratliff, I need to go
17 back to you had a previous question about the AFC,
18 and what the AFC said versus what we have in our
19 testimony.

20 MR. RATLIFF: Well, could I ask you, I'm
21 moving forward instead of backward now, and I had
22 a question about the biological opinion, or
23 biological assessment here that I want to see if
24 you agree with the statement in that, under
25 accommodating uncertainty and affirming

1 requirements, on 8.1.1 section.

2 And, again, I'll read that paragraph to
3 you. It says: Given current circumstances and the
4 history of vast changes in the landscape of the
5 American west in the last century, it would be
6 unrealistic to assume that closure of the Ivanpah
7 SEGS beginning in 27 to 47 years would involve
8 wholesale decommissioning and dismantling of the
9 facility, followed by rehabilitation and re-
10 vegetation efforts to return the landscape to
11 desert scrub similar to what exists on the site in
12 2008."

13 Then it goes on to say that "Obviously
14 even the next 25 to 70 year s urbanization has
15 spread to this valley. It would be incorrect to
16 assume that the goal of reclamation would be the
17 return of this land to desert scrub."

18 Do you agree or disagree with that
19 statement?

20 MR. HARRIS: Before you answer, I want
21 to point out this is not his testimony. This is
22 the biological assessment, right. It's BLM's
23 document, not our document. So if you can answer,
24 do. But it's not our testimony.

25 MR. DE YOUNG: I do not know who wrote

1 that. If that came from Dr. Larry LePre or if it
2 came from CH2MHILL. Perhaps Mr. Cleckler --

3 MR. RATLIFF: My question is do you
4 agree with it or disagree with it.

5 MR. CLECKLER: That wording, I think, is
6 from Larry. That wasn't in the version that
7 Charles and I worked on.

8 MR. RATLIFF: And do you agree or
9 disagree with it?

10 MR. COCHRAN: Well, without asking you
11 to read it, I mean if you've been listening to me
12 I think I did, maybe, you know, because I've been
13 talking a lot there awhile back there, but I mean
14 my -- I'm giving you my take on, you know,
15 recovery and desert ecosystems on, you know,
16 projects where there was no attempt at recovery or
17 re-vegetation.

18 Again, my just general assumption is if
19 they can get the hydrology right on this site, no
20 after decommissioning it's going to be different.
21 It'll be different for a long time if not forever.
22 But it could still retain, hopefully, a goal of
23 the values and functions that it, you know,
24 currently has. It's more of a question for the
25 re-vegetation plan.

1 from your left to your right, it's Mr. -- I think
2 I've forgotten the gentleman in the white shirt's
3 name.

4 DR. SPAULDING: Spaulding.

5 MR. BASOFIN: Spaulding, Cleckler,
6 Cochran, Carrier and De Young, get that -- okay,
7 great. Some of my questions will be directed to
8 some of you individually and others will be
9 directed to you as a group.

10 MR. HARRIS: We'll want the panel to
11 answer, who's best to answer those questions. And
12 I think that's probably more consistent with the
13 proceedings here, but, go ahead.

14 MR. BASOFIN: Okay, I mean I think the
15 way we've been working so far is some questions
16 have been addressed to individuals and others have
17 been addressed to the group. I don't think that's
18 inconsistent.

19 First of all, looking at the protocol
20 surveys, the protocol level surveys that were done
21 for this project, I guess the first question is
22 were there protocol level surveys done.

23 MR. COCHRAN: Yes.

24 MR. BASOFIN: Okay, and what is the
25 appropriate season for Mojave Desert Tortoise

1 protocol level surveys to be done?

2 MR. COCHRAN: Well, I can't remember the
3 exact dates. I believe, basically spring and fall
4 when they're active, but not in the summer when,
5 you know, it's too hot and not in the winter when
6 they're inactive. And the hope is -- oh, yeah,
7 here we go.

8 MR. CARRIER: When those surveys, the
9 desert tortoise protocol surveys were performed,
10 and I think that was 2007, the protocol period was
11 like March, April, May timeframe. And I think we
12 extended slightly beyond that with the permission
13 of the agencies.

14 MR. BASOFIN: Can you describe how you
15 extended slightly beyond the protocol level dates?

16 MR. CARRIER: I would have to look up
17 the exact survey dates, but I think they went --

18 MR. CLECKLER: I can't remember how far
19 they went, but I know that Ray Romero, the
20 biologist that was on the project at that time,
21 did get the approval from Ray Bransfield from
22 Ventura Fish and Wildlife Service to extend the
23 survey periods. And I believe that was based on
24 the survey data they were getting from other
25 projects that indicated that the tortoises were

1 still above ground at that time.

2 I think they extended it like a couple
3 weeks, or two weeks.

4 MR. CARRIER: I think it was just a
5 couple weeks, I'm not sure exactly how long.

6 MR. CLECKLER: They did find tortoises
7 above ground during that extension period.

8 MR. BASOFIN: Okay, and was the last
9 protocol level survey for desert tortoise for this
10 project during that time period in 2007?

11 MR. CARRIER: No. We did a supplemental
12 protocol survey for desert tortoise the following
13 year as part of the optimization, as a result of
14 the optimization. We added that area that we
15 referred to as the construction logistics area.
16 And that, which is the area between Ivanpah 1 and
17 Ivanpah 2.

18 And so there's some areas that were
19 surveyed the following year with a second survey.
20 And that was protocol level survey, as well. But
21 it didn't do the whole project area, only areas
22 that were missed or had changed since the initial
23 survey.

24 MR. BASOFIN: Okay, and will additional
25 protocol level surveys be done for this project,

1 assuming it's permitted, before construction?

2 MR. COCHRAN: There will be clearance
3 surveys which, you know, have a protocol to, you
4 know, find the tortoises, obviously clear them and
5 remove them.

6 But in terms of -- I don't know of any
7 additional protocol surveys that would be
8 performed at this site in terms of assessing how
9 many tortoises there are.

10 MR. BASOFIN: And based on your
11 collective experience as consulting biologists, is
12 it standard to have a three-year gap between when
13 protocol surveys are done and when a project
14 begins construction?

15 MR. COCHRAN: I just would point this
16 out, just logically the information collected for
17 the biological assessment, you know, presence or
18 absence, I mean the most valuable information
19 there is an estimate, or a pretty, you know,
20 precise estimate of how many tortoises there to
21 inform the relocation-translocation activities.

22 So, I don't see the utility of doing
23 another protocol survey unless it's, you know, for
24 the purposes of locating and moving tortoises.

25 MR. BASOFIN: That didn't answer my

1 question. Let me try it this way. For the group
2 here, have you been involved in other projects in
3 which protocol level surveys were done three-plus
4 years from the time of construction of the
5 project?

6 MR. COCHRAN: The question is the time
7 period between a protocol survey being completed
8 for purposes of assessing the habitat for
9 permitting, and then when the construction
10 activity started? Is that the question?

11 MR. BASOFIN: That's correct, that's
12 right.

13 MR. COCHRAN: Well, yes, I have. I've
14 been on projects where it's been a pipeline -- I
15 don't want to name which one, but a pipeline that
16 is paralleling or in the right-of-way of an
17 existing pipeline.

18 And in that case, protocol level surveys
19 that were done, you know, 15 years earlier for
20 purposes of the biological assessment and
21 obtaining the biological opinion were used.

22 And if I might elaborate a little bit, I
23 mean the thinking on those projects, which is
24 different than here, is the Fish and Wildlife
25 Service does not really need that, you know,

1 increased accuracy in the number of tortoises that
2 might be encountered. Their focus is on it is
3 habitat; I don't care if there's a lot of
4 tortoises there or not a lot of tortoises there,
5 you need to take all precautions to avoid
6 tortoises, adhere to all mitigation measures, you
7 know, regardless of how many tortoises there might
8 be in the area.

9 So, anyway, yes, I've had that
10 experience where there's been more than a three-
11 year gap.

12 MR. BASOFIN: Okay. Mr. De Young, you
13 stated in your oral testimony that you had had
14 conversations with U.S. Fish and Wildlife Service
15 regarding desert tortoises, is that correct?

16 MR. DE YOUNG: With the Service --

17 MR. BASOFIN: Yes, just as --

18 MR. DE YOUNG: Generally, but not
19 dealing with mitigation, as I was talking. My --

20 MR. BASOFIN: But you have had
21 discussions with Fish and Wildlife Service Staff
22 regarding impacts to desert tortoise on the
23 project site?

24 MR. DE YOUNG: No. My testimony dealt
25 with the mitigation proposal. We may have had

1 conversations during informal CEC workshops. But
2 most of the or all of the discussion on impacts
3 would have been through our consulting biologist.

4 MR. BASOFIN: Okay, so let me ask the
5 group then, have the group of biologists had
6 conversations with the U.S. Fish and Wildlife
7 Service Staff regarding project impacts on desert
8 tortoise?

9 MR. CLECKLER: My discussions with Brian
10 Croft, the staff person assigned to this project,
11 in Ventura, they've mainly been about the
12 translocation plan and the guidance that they put
13 together for that document, which we followed as
14 part of -- which is one of the attachments to the
15 biological assessment.

16 Other than that, there wasn't other
17 discussion.

18 MR. BASOFIN: But, Mr. Cleckler, you
19 have stated some familiarity with the 1994 desert
20 tortoise recovery plan, is that right?

21 MR. CLECKLER: I think that's Mr.
22 Cochran.

23 MR. BASOFIN: Mr. Cochran, are you
24 familiar with the 1994 desert tortoise recovery
25 plan?

1 MR. COCHRAN: Yes, in general. I mean,
2 you know, if it's a --

3 MR. BASOFIN: Okay. Are you --

4 MR. COCHRAN: -- multiple choice test I
5 might miss some.

6 MR. BASOFIN: Are you aware that U.S.
7 Fish and Wildlife Service in the 1994 desert
8 tortoise recovery plan states that the desert
9 tortoise is declining throughout its range?

10 MR. COCHRAN: Yes.

11 MR. BASOFIN: Okay. Are you aware that
12 the Fish and Wildlife Service in the 1994 desert
13 tortoise recovery plan cites the cumulative load
14 of human-caused and disease-related mortality
15 accompanied by habitat destruction, degradation
16 and fragmentation as a cause of desert tortoise
17 decline?

18 MR. COCHRAN: I have a general
19 familiarity. And a lot of that did, you know,
20 come out of, you know, when they published the
21 Federal, you know, Register, you know, their
22 listing proposal. And they, you know, list the
23 different categories, habitat degradation, over-
24 use commercial, et cetera, et cetera. So, yeah, I
25 have a general familiarity of that.

1 MR. BASOFIN: Okay, and are you aware
2 that U.S. Fish and Wildlife Service in that 1994
3 draft recovery plan also states that almost every
4 extant desert tortoise population has been
5 affected by one or more of these threats that I
6 just mentioned?

7 MR. COCHRAN: Yes, I am. And maybe it's
8 a small point. The recovery plan was written by
9 the Desert Tortoise Recovery Team. So all the
10 authors on that, you know, document were not, you
11 know, just to clarify, I mean they were not Fish
12 and Wildlife Service, you know, employees.

13 I think of my friend, Cecil Schwabe with
14 the University of Arizona and the Cooperative
15 Extension, you know, Service there.

16 So, I guess a recovery plan has to be a
17 Fish and Wildlife Service-approved document. But
18 the Desert Tortoise Recovery Team was a suite of
19 other, you know, scientists.

20 MR. BASOFIN: Okay. In your collective
21 written testimony, you state that: Based on U.S.
22 Fish and Wildlife Service's recommended maximum
23 density, the Ivanpah site could support 651 desert
24 tortoises, not 25." Referring to the 25 that were
25 found during protocol level surveys.

1 This is 26 times the number of desert
2 tortoises actually found during on-the-ground
3 surveys of the project site.

4 Did you consult with U.S. Fish and
5 Wildlife in making that determination that the
6 Ivanpah site could support 651 desert tortoises?

7 MR. CARRIER: I think the source of that
8 was the information received from Fish and
9 Wildlife Service at the workshop in January -- is
10 that when that was -- where they identified
11 certain constraints upon the relocation areas.

12 And they, in that document, listed what
13 the maximum density would be, so they didn't want
14 us to move tortoise into an area that would create
15 too much over-crowding. I think that was just a
16 mathematical calculations of those limits. Just
17 as an illustrative point, that we're looking at a
18 very low population in this area.

19 MR. BASOFIN: Okay, but that statement
20 wasn't made in the context of relocation. It was
21 made in the context of the quality of the habitat
22 for desert tortoises and the number of desert
23 tortoises that the site should be able to support,
24 isn't that true?

25 MR. CARRIER: I'm not sure exactly. Is

1 that -- where is that quote you're referencing?

2 MR. BASOFIN: It's in -- well, again I'm
3 having the same issue Mr. Ratliff had with the
4 pagination --

5 MR. CARRIER: It's in the testimony, is
6 that what you're saying?

7 MR. BASOFIN: It's in the testimony
8 under biological resources. Let's see --

9 DR. SPAULDING: Excuse me, sir. While
10 you're -- while we're looking at the paperwork
11 here, could you explain where the number 651 comes
12 from again?

13 MR. CARRIER: It's here.

14 DR. SPAULDING: Okay, got it? Okay. I
15 withdraw that question.

16 MR. RATLIFF: I'm sorry, if you go back
17 to the same testimony under summary of testimony,
18 it's on the --

19 MR. CARRIER: I think the point was just
20 like I said earlier, that using those maximum
21 density numbers, it was just to try and show, by
22 comparison, the few number of tortoises that we
23 have there compared to what Fish and Wildlife
24 Service would see would be a maximum carrying
25 capacity.

1 MR. BASOFIN: Okay. And is it possible
2 that based on what you've characterized as a
3 relatively few number of desert tortoises, is it
4 possible that there are only that many tortoises
5 because of the population declines, the
6 fragmentation and the encroachment by human
7 development that's cited in the 1994 recovery
8 plan? Is that possible?

9 MR. COCHRAN: That's certainly, you
10 know, possible. I mean as every biologist here
11 knows, I mean that 25 number, and that's pretty
12 accurate, the protocol surveys. I mean there
13 could be, you know, 30 or something like that.
14 That's a snapshot in time.

15 Now as to what is the history of the
16 population in that area, you know, it's unknown.
17 I mean just walking around out there, it's -- all
18 you can say is that it's a relatively low number.
19 And to put it in perspective it's, you know, five,
20 you know, four to five tortoises per square mile.

21 And I know when I was doing inventory,
22 you know, anything, when you're estimating less
23 than 20 per square mile, zero to 20 is, you know,
24 considered low; 20 to 50 moderate, you know,
25 whatever.

1 So, that was the basis of that
2 characterization. And I mean in assessing
3 tortoise habitat, I mean anytime you have the
4 luxury of knowing, having a pretty good solid idea
5 of how many live tortoises are in the area, that's
6 what you tend to focus on.

7 HEARING OFFICER KRAMER: Just for the
8 record you've been speaking about exhibit 65.
9 When we go and read this later, we'll know where
10 to look.

11 MR. BASOFIN: Exhibit 65 is applicant's
12 testimony.

13 HEARING OFFICER KRAMER: Yes.

14 MR. BASOFIN: Right. Thank you, Mr.
15 Kramer.

16 There's another statement in your
17 collective testimony, the Ivanpah, and I'm quoting
18 here, "The Ivanpah SEGS project is not located
19 within the 16.4 million acres of desert tortoise
20 critical habitat. And is by no means in an area
21 critical to the survival of the species."

22 Can one of you give some foundation for
23 that statement?

24 MR. COCHRAN: I can give you some
25 context there. Again, I mean I think in talking

1 earlier I probably, you know, touched on that.

2 Critical to the survival of the species.

3 And so really, we're looking at a species or
4 populations with a pretty wide, large, you know,
5 distribution, as you well know.

6 So, taking out this piece of it, putting
7 on the Fish and Wildlife Service hat, no, it would
8 not constitute, you know, the direst, you know,
9 jeopardizing the continued existence of the
10 species. So, you know, in that context it's a
11 correct statement.

12 And it's again, fortunate that it's --
13 well, not fortunate, but anyway, again it's not
14 located in the area where we're focusing on the
15 recovery of the species.

16 MR. BASOFIN: Okay, isn't it true that
17 this particular area where the project site is has
18 historically supported a much larger desert
19 tortoise population?

20 MR. COCHRAN: I don't know.

21 MR. BASOFIN: Mr. Cleckler, in your
22 testimony today you stated that, and please
23 correct me if I'm somehow mis-wording this, but
24 you stated that the recovery actions are, the U.S.
25 Fish and Wildlife recovery actions -- excuse me,

1 the U.S. Fish and Wildlife Service recovery
2 actions for desert tortoise have been largely
3 unfunded, is that right?

4 MR. CLECKLER: My statement earlier was
5 about how the recovery plan has not been fully
6 implemented because of lack of funding. And there
7 was an assessment that was done a few years ago
8 where they were reviewing the recovery plan. And
9 that was their conclusion.

10 MR. BASOFIN: Okay. Are you familiar
11 with 2002 GAO study on the desert tortoise
12 recovery program that found that \$100 million had
13 been spent on management actions to benefit
14 tortoises by federal, state, local and private
15 agencies?

16 MR. CLECKLER: I've seen that statement
17 before.

18 MR. BASOFIN: Okay, in your opinion is
19 \$100 million towards management actions for desert
20 tortoise a substantial sum?

21 MR. CLECKLER: It seems substantial.

22 HEARING OFFICER KRAMER: Over what
23 period of time was that expenditure, do you know?

24 MR. BASOFIN: I'm not sure.

25 DR. CONNOR: Listing --

1 MR. BASOFIN: This is a general question
2 for the group. Are you familiar with a 2000 study
3 entitled, A Genetic Assessment of the Recovery
4 Units for the Mojave Population of Desert
5 Tortoise?

6 MR. CLECKLER: Was that an appendix to
7 the '94 recovery plan?

8 MR. BASOFIN: I'm not sure, but it has
9 been submitted as an exhibit by Defenders.

10 MR. HARRIS: Do you have an exhibit
11 number, Josh?

12 MR. BASOFIN: Yeah, I can get that.

13 (Pause.)

14 MR. BASOFIN: Actually, I apologize,
15 that was not submitted as an exhibit by Defenders,
16 but it was submitted by Western Watersheds, and
17 it's exhibit 507.

18 So I think the pending question is are
19 you familiar with that particular study.

20 MR. HARRIS: Josh, do you have a copy
21 for the witnesses, or can you help us find one for
22 the witnesses?

23 MR. CLECKLER: I don't have it in front
24 of me, but I have read it. You're talking about
25 the studies on genetics.

1 MR. HARRIS: And what was the number,
2 again, Joshua?

3 MR. BASOFIN: 507, exhibit 507.

4 MR. SPEAKER: That would be 2007, I
5 think this is the database of 2000.

6 MR. BASOFIN: I said 2007.

7 MR. CLECKLER: I thought you were
8 referring to an older document about the genetics
9 of the area.

10 MR. BASOFIN: Okay, I'm referring to a
11 study, it's Western Watersheds' exhibit 507. It's
12 a 2007 study, Murphy, Berry, Edwards and McLuckie,
13 A Genetic Assessment of the Recovery Units for the
14 Mojave Population of the Desert Tortoise". You
15 should have it there.

16 MR. DE YOUNG: This panel is not
17 familiar with that study.

18 MR. BASOFIN: Okay. Are you familiar
19 with the concept in the study that the
20 northeastern --

21 MR. HARRIS: Well, wait a minute, they
22 said they weren't familiar with the study. I
23 don't think you're going to ask them a question on
24 it.

25 They provided their answer, they're not

1 familiar with the study. To follow up with a
2 question on something they said they're not
3 familiar --

4 (Parties speaking simultaneously.)

5 MR. BASOFIN: Okay, I'll rephrase --

6 MR. HARRIS: -- seems pretty ridiculous.

7 MR. BASOFIN: I'll rephrase my question.

8 MR. HARRIS: Sorry, Josh, I shouldn't
9 have been so pejorative. I just object, how's
10 that.

11 HEARING OFFICER KRAMER: Sustained.

12 MR. BASOFIN: Are you aware that the
13 northeastern Mojave recovery unit has showed the
14 greatest genetic differentiation among desert
15 tortoises in the Mojave?

16 MR. COCHRAN: Just a clarification. Are
17 you talking about they're the most different from
18 the other evolutionary significant units?

19 MR. BASOFIN: Yes.

20 MR. COCHRAN: No, I was not aware of
21 that. But I will accept it.

22 MR. BASOFIN: And in your professional
23 opinions, is genetic differentiation among
24 subpopulations important for the survival of
25 desert tortoise, as a species?

1 MR. COCHRAN: Yes.

2 MR. BASOFIN: Okay. Mr. De Young,
3 you've testified a little bit about the mitigation
4 ratio that's been proposed for this project to
5 fulfill both the Department of Fish and Game and
6 Bureau of Land Management requirements.

7 Do you know of any land that's currently
8 been identified for acquisition?

9 MR. DE YOUNG: I'm sorry, didn't catch
10 the first part of the question.

11 MR. BASOFIN: Are you aware of any land
12 that's been proposed for acquisition towards
13 compensatory mitigation for this project?

14 MR. DE YOUNG: For this project?

15 MR. BASOFIN: Yes.

16 MR. DE YOUNG: No. No, that's something
17 that we've tried to get out of Fish and Game. Our
18 issue is not that some portion of this project
19 include acquisition. And, in fact, BLM, I believe
20 a letter that was appended to Department of Fish
21 and Game letter of October 27th, my apologies I
22 don't have the exhibit number, included
23 acquisition as one of the ways that the
24 compensation funds would be used.

25 Our issue is acquisition of 8000 acres.

1 I've tried again and again and again to get some
2 specificity on if there are areas that they would
3 like to see acquired, to let us know where. And
4 I've yet to receive anything on that.

5 MR. BASOFIN: And have you proposed any
6 particular lands for acquisition towards
7 mitigation?

8 MR. DE YOUNG: Again, what we proposed
9 was an in-lieu fee. And then letting the experts
10 among the agencies, and perhaps even the
11 intervenor groups determining, that's the
12 biologists determining how best to spend the
13 money. Not the bureaucrats. That's our point.

14 And it's geared towards the species.

15 MR. BASOFIN: Mr. De Young, earlier in
16 your testimony you stated, I think, that CDFG is
17 trying to reopen the NEMO? In your opinion does
18 CDFG have a role in assessing, reviewing and
19 making recommendations on this project?

20 MR. DE YOUNG: I'm sorry, you talked
21 about the NEMO and then you talked about do they
22 have a role in this project --

23 MR. BASOFIN: I'm referring to a portion
24 of your testimony where you were discussing CDFG's
25 involvement in the project.

1 MR. DE YOUNG: Right.

2 MR. BASOFIN: And I think your statement
3 was that you felt that by becoming involved in the
4 project they were trying to reopen the NEMO by
5 asking for a two-to-one mitigation ratio, where
6 you thought that the NEMO only required a one-to-
7 one mitigation ratio.

8 MR. HARRIS: I'm going to object to the
9 characterization of this testimony. I think I
10 know where you're going. Try it again, though, I
11 don't think he said it quite that way, Josh.

12 MR. BASOFIN: Okay. Was it your
13 testimony today, Mr. De Young, that the two-to-one
14 mitigation ratio that DFG has recommended goes
15 beyond the requirements for mitigation?

16 MR. DE YOUNG: It is my understanding
17 that the fact that we are on federal land, not
18 state land, that we have conclusions that were
19 reached in the NEMO regarding compensation for
20 this land that compensation to BLM is the
21 mitigation that's required for the project.

22 And I stated that we went beyond that,
23 and very early on agreed to additional
24 compensation mitigation in the form of funding
25 commensurate with a one-to-one ratio to be paid to

1 BLM that would go to whomever the state decided
2 the money should go to, whether it be Department
3 of Fish and Game or National Wildlife, NFWF, some
4 third party.

5 MR. BASOFIN: Okay. And is it your
6 opinion that Fish and Game code section 2081,
7 which contains the requirements for incidental
8 take permitting, and the full mitigation standard
9 contained therein, don't apply to this project?

10 MR. HARRIS: Are you asking for a legal
11 opinion? Or --

12 MR. BASOFIN: No, I'm not asking for a
13 legal opinion. I'm asking a question based on his
14 earlier testimony concerning Department of Fish
15 and Game's jurisdiction.

16 MR. DE YOUNG: I do not believe that
17 currently Fish and Game will be issuing a permit
18 for the project. I believe that that authority is
19 now subsumed within the Energy Commission process.
20 I believe that Fish and Game is there to consult
21 and to give recommendations for mitigation.

22 MR. BASOFIN: Okay, earlier in your
23 testimony you referenced the full mitigation
24 standard contained in the California Endangered
25 Species Act. Is it your opinion that the full

1 mitigation standard should not apply to this
2 project?

3 MR. DE YOUNG: No, I think full
4 mitigation should apply. And I believe full
5 mitigation to the mitigation paid to BLM for a
6 project on federal land.

7 MR. BASOFIN: Okay, thank you. I just
8 have one final question concerning the statement
9 that Mr. Ratliff alluded to in your collective
10 testimony, concerning the ability of the project
11 to be restored to its current state such that it
12 would not be lost in perpetuity.

13 Do you have any projects that have
14 currently been permitted and constructed and
15 returned to their previous ecological functions to
16 cite to?

17 MR. DE YOUNG: Does BrightSource?

18 MR. BASOFIN: Yes.

19 MR. DE YOUNG: No.

20 MR. BASOFIN: Do you have any studies
21 that would indicate the capacity of a project of
22 this sort to return habitat to its original
23 function to cite to?

24 MR. DE YOUNG: Before Dr. Spaulding
25 answers, I do want to clear up one issue.

1 Mr. Ratliff referred to a section of the AFC that
2 dealt with restoration.

3 Elsewhere in that AFC we have
4 contemplating significant grading of the site.
5 We'd indicated we were going to cut off all
6 vegetation at or slightly below ground level. And
7 we've since modified the project description to
8 incorporate what's called a low-impact design, or
9 an LAD.

10 In the low-impact design it's the intent
11 to leave as much of the existing vegetation in
12 place as possible. Thereby changing those
13 conclusions that were in the original AFC about
14 re-vegetation.

15 And with that I'll let Dr. Spaulding
16 answer the question.

17 DR. SPAULDING: Yeah, our understanding
18 of re-vegetation and planning for re-vegetation
19 rehabilitation for this project has been largely
20 informed by studies by the U.S. Geological Survey
21 and others of late 19th, early 20th century mining
22 camps, World War II era, military training
23 facilities that have been referred to earlier, and
24 other similar historic broad-scale disturbances.

25 MR. BASOFIN: Okay, thank you. I have

1 no further questions.

2 HEARING OFFICER KRAMER: Okay, just for
3 planning purposes, we're planning on taking a
4 break about 3:00, in about 15 minutes. Until then
5 we'll move on now to Mr. Connor.

6 MR. HARRIS: Mr. Kramer, if I could, Mr.
7 Woolard is available to be called to answer at
8 least those questions, if you want to try to
9 squeeze that in at some point, either now or at a
10 time certain like 3:10 or something. Whatever you
11 prefer.

12 HEARING OFFICER KRAMER: Let's make that
13 -- what about the other witness, would that be
14 some other time? On the capacity factor.

15 MR. DE YOUNG: (inaudible).

16 HEARING OFFICER KRAMER: Yes? Okay,
17 well, you can let me know at the break then.

18 Let's say then 3:15, we'll have him on
19 the telephone.

20 MR. HARRIS: 3:15. Okay, thank you.
21 Sorry for the interruption.

22 HEARING OFFICER KRAMER: Okay, Mr.
23 Connor.

24 DR. CONNOR: Good afternoon, everybody.
25 I have a few questions on the recovery plan, and a

1 plan would have established a DWMA in the north
2 Ivanpah Valley? The north Ivanpah Valley would
3 have been in the Ivanpah DWMA that includes the
4 project site.

5 MR. COCHRAN: Okay, just to clarify. So
6 you're talking about the 1994 recovery plan --

7 DR. CONNOR: Talking about the 1994
8 recovery plan.

9 MR. COCHRAN: -- what they depicted the
10 different large, you know, what I consider to be a
11 conceptual kind of reserve system, areas that
12 should be considered for the DWMA. Yes, it did
13 extend into what is now north of the interstate.
14 Yes, I'm aware of that.

15 DR. CONNOR: Okay. The current
16 designation of the north Ivanpah Valley under the
17 NEMO plan is now category three, I think -- BLM
18 category three. I think you mentioned that
19 before?

20 MR. COCHRAN: That's correct.

21 DR. CONNOR: Do you know when it became
22 category three?

23 MR. COCHRAN: My understanding that was
24 part of the NEMO process. The EIS, the final, you
25 know, alternative, the establishment which did

1 delineate the DWMAs, that area was not part of the
2 DWMA. And areas outside the DWMA, areas of
3 critical environmental concern, et cetera, were
4 converted to category three.

5 DR. CONNOR: Yeah, so the NEMO plan
6 basically said that if you have tortoise habitat
7 that's not within the DWMA it, by default, becomes
8 category three?

9 MR. COCHRAN: That is my understanding.

10 DR. CONNOR: And prior to that it was
11 category one?

12 MR. COCHRAN: I think that's correct.

13 DR. CONNOR: Okay. So there was no
14 change in quality, it's just a change basically in
15 designation?

16 MR. COCHRAN: It would be a change in
17 the habitat category designation.

18 DR. CONNOR: Yeah, okay.

19 MR. COCHRAN: And management that's
20 attendant to the different categories.

21 DR. CONNOR: Okay. Are you also aware
22 that the NEMO plan considered making the north
23 Ivanpah Valley an ACEC as one of its alternatives?

24 PRESIDING MEMBER BYRON: Please help me
25 out. What's an ACEC?

1 DR. CONNOR: Oh, ACEC, area of critical
2 environmental concern.

3 MR. COCHRAN: I can't verify that,
4 but -- yes, I know it was in one of the
5 alternatives that wasn't chosen. Yes.

6 DR. CONNOR: Yeah, it was in two
7 alternatives. I was interested to hear about your
8 experiences on the Kern River pipeline. I got a
9 couple of questions about that.

10 The Kern River pipeline was quite a
11 controversial project. It had the largest take of
12 desert tortoises that I'm aware of of a linear
13 project. Do you know how many tortoises were
14 killed in that project?

15 MR. COCHRAN: Yeah, I don't know. A
16 lot. And I would be willing, you know, to speak
17 to that. I think having come from, recently, from
18 the Fish and Wildlife Service, having been
19 involved in biological assessment and the
20 biological opinion at the Service, that was a
21 learning experience.

22 It was a large project soon after the
23 listing, and they made some mistakes, in my
24 opinion, in the biological opinion in terms of the
25 terms and conditions, which led to a high level of

1 take.

2 DR. CONNOR: Yeah, it's -- there was
3 actually a paper published on it, trying to
4 analyze mistakes by Olsom back in the '80s. There
5 were 29 tortoises taken on that project?

6 MR. COCHRAN: I thought there were more,
7 but --

8 DR. CONNOR: Well, that's the number
9 that Olsom reports. It may well have been more.

10 I'm sure that you've all -- you've all
11 been out to the project site, and you've all seen
12 the Kern River pipeline as it crosses through the
13 north Ivanpah Valley there.

14 Do you consider that to be an example,
15 at least in that segment of the valley there where
16 we all have some experience, is a good example of
17 restoration?

18 DR. SPAULDING: We covered two parts of
19 the Kern River pipeline just north of Ivanpah 3,
20 and just north of one of the Primm water wells in
21 our study of re-vegetation processes in that part
22 of the Ivanpah Valley.

23 I can't speak to the re-vegetation
24 efforts such as they were for Kern River 1, which
25 was approximately 1991, thereabouts.

1 Kern River 2, which went through there
2 in about the year 2000, when you get down on the
3 ground, rather than, you know, from the interstate
4 or from an area where the scar is quite
5 noticeable, because of the change in desert
6 varnish coating, change in coloration of the soil,
7 there are a number of plant species, both
8 perennials and annuals, that were recorded.

9 And re-vegetation actually, in
10 comparative terms over the last nine to ten years,
11 seems to be going along fairly well.

12 DR. CONNOR: And so you think it looks
13 -- it's starting to look natural?

14 DR. SPAULDING: Please define natural.

15 DR. CONNOR: Well, I'm just interested,
16 you know, --

17 DR. SPAULDING: Sir, I don't mean to be
18 facetious and toy with you, but certainly as a
19 successional, natural succession in a desert scrub
20 community it would appear to be a bit on the
21 unnatural side, in that it's going along so well.
22 And that's just a consequence, I presume, of the
23 re-vegetation efforts that were undertaken after
24 construction.

25 DR. CONNOR: Yeah, I'm just interested

1 in, you know, using the Kern River pipeline as it
2 goes through the north Ivanpah Valley there,
3 basically as an example of the issue of trying to,
4 you know, recover habitat.

5 I mean it's a sort of a -- I think it's
6 a nice example of what's actually -- what it
7 actually takes to get recovery of habitat in the
8 valley.

9 Okay, I'd like to ask some questions
10 about desert tortoise monitoring. And that is
11 that a number of surveys have been conducted on
12 the project site, that's correct? Those surveys
13 done in 2007 and 2008, is that correct?

14 MR. CARRIER: Yes, that's correct.
15 You're talking about the protocol level surveys at
16 the site?

17 DR. CONNOR: Yeah. And also there was
18 an additional survey conducted in July of the
19 current year -- I'm sorry, 2009, it's not the
20 current year anymore.

21 MR. CARRIER: That's correct. That was
22 a nonprotocol survey of the translocation sites.

23 DR. CONNOR: And that was of the
24 translocation sites. So the west of the project,
25 that's correct?

1 MR. CARRIER: Correct.

2 DR. CONNOR: I've looked through this
3 data and the biologist in the first survey and the
4 second survey have observed a total of 25 desert
5 tortoises on the site, is that correct?

6 MR. CARRIER: Yes, I believe that's a
7 correct number.

8 DR. CONNOR: Yeah, and then there was
9 some additional tortoises seen on the
10 translocation site, but that was waiver?

11 MR. CARRIER: Well, I think even that 25
12 included not just the site, but the one-mile
13 buffer area, the zones of influence area around.

14 DR. CONNOR: Okay. Have your biologists
15 ever attempted to estimate the actual number of
16 tortoises on the site, as opposed to counting the
17 number of tortoises they've seen?

18 MR. CARRIER: No, within my knowledge.

19 (Pause.)

20 MR. COCHRAN: You're basically, I mean,
21 I know you're familiar with the literature. I
22 mean anytime you can actually count live tortoises
23 with a relatively intense survey, that's
24 preferable to estimating based on other sign. I
25 mean I put a lot of emphasis on, you know, live

1 tortoises rather than carcasses or scats or
2 unoccupied burrows.

3 DR. CONNOR: Are you saying that your
4 belief is that the 25 tortoises you observed are
5 all the tortoises on the project site?

6 MR. COCHRAN: I'd be very surprised if
7 it were. I mean I wouldn't be surprised if
8 there's some juvenile-size tortoises, some
9 hatchlings, some smaller tortoises that might have
10 been, you know, missed.

11 And also it's a snapshot in time. They
12 move around. There could be fewer there, there
13 could be more. I mean they move.

14 DR. CONNOR: Are you familiar with the
15 report that was generated, it's dated August the
16 11th, by SNEI, August 11, 2009? It's the report
17 of the survey of the translocation area.

18 MR. COCHRAN: Yes.

19 MR. HARRIS: Is there an exhibit number
20 with that one?

21 DR. CONNOR: It's -- sorry, I don't know
22 what it is.

23 MR. COCHRAN: There is an exhibit
24 number.

25 MR. HARRIS: Is it Michael's exhibit

1 or --

2 MR. COCHRAN: It's one of our exhibits.

3 DR. CONNOR: No, it's one of --

4 MR. HARRIS: Oh, it's one of ours?

5 MR. COCHRAN: Yeah.

6 MR. HARRIS: Then it's an authoritative
7 document and it should be followed closely, yes.

8 DR. CONNOR: I'm sorry, I -- you know, I
9 don't know what your exhibit number is. It might
10 be towards the end, though.

11 MR. COCHRAN: It is supplemental data
12 response 2-I or J, I can't --

13 DR. CONNOR: 2-J, 2-J.

14 MR. DE YOUNG: That's exhibit,
15 supplemental data response set 2-J is exhibit 47.

16 HEARING OFFICER KRAMER: Also listed as
17 exhibit 29. Okay, I guess you had two versions
18 dated at different times. Is that possible? With
19 the same 2-J suffix.

20 MR. CARRIER: There is data response set
21 2-J, and then supplemental data response 2-J.
22 Probably, yeah.

23 HEARING OFFICER KRAMER: Oh, okay, I've
24 got you. Thank you. So 47 is the exhibit number.

25 MR. HARRIS: Does the panel have the

1 document, or a copy of it? Yeah, okay.

2 MR. CARRIER: Yeah, we have a copy of
3 the document.

4 MR. HARRIS: Sorry, Michael, sorry.

5 DR. CONNOR: Do we have a copy of it
6 now?

7 MR. CARRIER: I think we have a copy of
8 it, yes.

9 DR. CONNOR: All right, great. Okay, in
10 this document perhaps one of you could summarize
11 what was done, what is reported in this document?
12 I mean I can try and do it for you, but it's
13 probably best if one of you do that.

14 MR. CARRIER: I can give you a little
15 bit of a summary of it. SNEI went out to the four
16 potential translocation areas and surveyed looking
17 for sign they didn't expect because of the late
18 data. As you mentioned, they didn't expect to see
19 a lot of live tortoises. But they were looking
20 for burrows and sign to get some sense of density.

21 (Telephone operator interruption.)

22 (Laughter.)

23 HEARING OFFICER KRAMER: Go off the
24 record for a minute.

25 (Off the record.)

1 DR. CONNOR: Okay, so we've got the
2 document now?

3 MR. CARRIER: Yes.

4 DR. CONNOR: And we're going to have a
5 description.

6 MR. CARRIER: So they surveyed looking
7 for tortoise sign, which they recorded. And then
8 based on that they tried doing a little
9 statistical analysis to kind of get some kind of
10 idea of the level of survey.

11 And their conclusion, I think, was that
12 the translocation sites had about the same density
13 of --

14 (Telephone operator interruption.)

15 HEARING OFFICER KRAMER: I'm going to
16 hang up and call back in during the 3:00 break.
17 But hopefully we can keep going. We're about to
18 take a break.

19 MR. CARRIER: And I believe that their
20 conclusion was that the translocation sites had
21 about the same density of tortoises as the regular
22 proposed project site. Comparable type of density
23 and habitat.

24 DR. CONNOR: Okay, are you aware of the
25 method they used to do that?

1 MR. CARRIER: I'm not -- they used some
2 kind of, type of statistical analysis and I'm not
3 that familiar with what they did.

4 DR. CONNOR: Yeah, they used the
5 protocol that was provided by the U.S. Fish and
6 Wildlife Service?

7 MR. CARRIER: The new 2009 protocol --

8 DR. CONNOR: The 2009 protocol?

9 MR. CARRIER: -- statistical analysis.
10 Yeah.

11 DR. CONNOR: Yeah. Are you familiar
12 with the protocol?

13 MR. CARRIER: Personally I've read the
14 protocol, but I have never tried to do a
15 statistical analysis with it.

16 (Telephone operator interruption.)

17 HEARING OFFICER KRAMER: We're almost
18 there to the break. Keep going.

19 DR. CONNOR: Okay, one of the -- you're
20 not familiar with the protocol, itself? Are you
21 aware of the basis behind the protocol, perhaps?

22 MR. CARRIER: I'm aware of the basis
23 behind the protocol, the newly proposed protocol
24 that, I think, has been allowed since, what, the
25 fall of 2009? But I'm familiar with the concept

1 of taking a sample and then using statistical
2 analysis to predict roughly what the -- of what
3 the level of density is, or the number of
4 tortoises based upon your sample size and project
5 size and all that.

6 DR. CONNOR: Yeah, so basically what you
7 do is your survey crew go out; they survey the
8 project site. They gather a, you know, an
9 observed number of tortoises. And then they go
10 back and they do a statistical calculation to work
11 out actually what the abundance of tortoises is on
12 that site, to get an estimate of the number.

13 Okay. And that is what was done in this
14 report. And you look at the report and in table 5
15 of this report, it lists the calculated value,
16 what it calls the calculated value of the N, which
17 is the estimated number of tortoises on the site.

18 MR. CARRIER: Yes, I see that.

19 DR. CONNOR: It's at the top of page 9.
20 Okay.

21 MR. CARRIER: I think that there's a
22 problem with this table in that the third column
23 it says tortoises located. I think it meant
24 tortoise sign located.

25 DR. CONNOR: No, this is -- table 5 is

1 actually the data from your 2007 survey.

2 MR. CARRIER: Oh, okay.

3 DR. CONNOR: You know, as you said
4 before, they were trying to compare the number of
5 tortoises at the relocation sites, translocation
6 sites, with the project site.

7 So what they did is they analyzed the
8 data from the project site, and compared this with
9 the relocation site.

10 MR. CARRIER: I'm not sure that's
11 correct, because if that third column says
12 tortoises located, and you're saying that's the
13 2007, I don't believe we had ten tortoises in
14 Ivanpah 1. I think we had closer to five.

15 DR. CONNOR: Well, this is the data in
16 the table. I mean I, you know, going --

17 MR. CARRIER: I think this -- it says
18 tortoises located in the column, but I'm not sure
19 what the data's referring to. And it's not
20 referenced. That table is not referenced in the
21 text. I went and looked for it, as well, after I
22 saw your written testimony.

23 I did ask SNEI for an explanation and
24 never got one back on table 5, but they did send
25 me their data table. And I can take a look at

1 that during the break and print it out, if you'd
2 like.

3 But I think, I'm pretty certain that
4 these numbers here, the tortoises located in each
5 of these are not from the 2007 and '8 surveys.
6 Because we had more tortoises up in Ivanpah 3,
7 which is a bigger area, than we had down in
8 Ivanpah 1.

9 DR. CONNOR: Okay. If we just look at
10 the data that's actually in that table --

11 HEARING OFFICER KRAMER: Why don't we
12 break here since they want to go look a little
13 bit, it sounds like. And we promised to break at
14 3:00. So, let's come back at -- let's make it
15 3:20 now. And we'll pick up where we left off.

16 MR. BASOFIN: Mr. Kramer, could I ask a
17 brief question before we break. Just taking note
18 of the time, I'm wondering if we have a tentative
19 schedule for the afternoon. I'm wondering because
20 I have my expert, Dr. Marlow, here for a one-day-
21 only appearance.

22 HEARING OFFICER KRAMER: Okay, well,
23 after staff, I think you, in the order we've
24 chosen you'd be the next person to put him on.

25 We are going to be going into the

1 evening. I guess this is a good time to let you
2 know about that. So I think -- and we can
3 probably go till -- not until the next morning.
4 We'll certainly be home for Letterman.

5 (Laughter.)

6 HEARING OFFICER KRAMER: But Leno, while
7 he's still on -- but, anyway, this is notice that
8 -- and the applicant is providing some box
9 lunches.

10 And the other detail we will need to
11 attend to at the next break is if some of you have
12 parked in the state garage, then you will need to
13 get your cars out of there before they close it
14 up.

15 But, we're going to set the timing of
16 that up so you'll be able to park them on the
17 street after the meters shut down. So, it won't
18 cost you any more anyway. But I believe it's
19 7:00, if you're not out of those garages by then,
20 you will -- you'll be there all night.

21 So, question?

22 MR. SPEAKER: Yes, question about Mr.
23 Woolard --

24 HEARING OFFICER KRAMER: For Mr.
25 Woolard, now I think he could call in at --

1 actually, can he call in tomorrow? Is that just
2 as easy?

3 Could you find out, because we might
4 find that we would prefer using the extra time on
5 biology today, rather than breaking out train of
6 thought.

7 So, back at 3:20. Off the record.

8 (Brief recess.)

9 HEARING OFFICER KRAMER: Okay, we're
10 back on the record. First, Mr. Harris, the topic
11 of Mr. Woolard's availability?

12 MR. HARRIS: My understanding is that
13 Mr. Woolard will be on an airplane tomorrow
14 morning. You asked about his availability
15 tomorrow. But will arrive on the east coast after
16 1:30. So if we were to pick at time certain, you
17 know, maybe 2:00 or so to allow for variables
18 there. I think we can make him available tomorrow
19 afternoon to answer at least those questions.

20 HEARING OFFICER KRAMER: Okay. Should
21 we pick the time now, or maybe in the morning? Is
22 that good enough?

23 MR. HARRIS: Well, it would be 1:30 or
24 later tomorrow. And maybe it would make more
25 sense to pick it in the morning so you can figure

1 out whether there's any flight issues.

2 HEARING OFFICER KRAMER: Okay. All
3 right, so let's continue, then. So Mr. Connor is
4 -- there, there he is.

5 Your next question, sir.

6 DR. CONNOR: Is that better? Is the
7 microphone on?

8 THE REPORTER: Yes.

9 DR. CONNOR: Okay, thank you.

10 Okay, so can we get back to this SNEI
11 report. We just had a discussion that there is
12 some issue with the data in table 5, is that
13 correct?

14 MR. CARRIER: Yes. We were discussing
15 the data on table 5.

16 DR. CONNOR: And the discrepancy was
17 what, exactly?

18 MR. CARRIER: Well, I'm confused with
19 table 5 because table 5 identifies tortoises
20 located per site, Ivanpah 1, 2 and 3. SNEI did
21 not survey Ivanpah 1, 2 and 3, but they surveyed
22 translocation sites.

23 And I have a figure that shows the
24 location of the tortoises that were found during
25 the two protocol surveys. And in Ivanpah 1, for

1 example, there was one, two, three, four during
2 the first survey and one during the second. So
3 that gives you only five. And they have ten on
4 their table.

5 So I'm not quite sure what their table
6 is trying to express. That -- no, they didn't, I
7 don't think. So they just -- the point, though,
8 is I think we're trying to make something more out
9 of this SNEI report than was intended.

10 The purpose of their survey was to
11 identify -- sure, hang on a second.

12 (Pause.)

13 MR. CARRIER: On face value, looking at
14 the data from the survey it looks like they
15 reversed them calling Ivanpah 3 Ivanpah 1.
16 Ivanpah 2 would be the same. Then Ivanpah 1 was
17 referred to as Ivanpah 3. There are five
18 tortoises that were found at Ivanpah 1; there were
19 ten tortoises found at Ivanpah 3. And there were
20 three found at Ivanpah 2.

21 So that means that these numbers are all
22 off, then, because the acreages is backwards.

23 DR. CONNOR: Okay, I'm sorry, could you
24 say what those numbers are again? Let me just
25 write them by the table here so I can be clear.

1 Sorry.

2 MR. CARRIER: Let me just give you the
3 picture. That figure is out of the tortoise
4 translocation plan. And the exhibit number is on
5 the back.

6 DR. CONNOR: So based on this, then, the
7 correct numbers in that second column should be
8 five, three, ten?

9 MR. CARRIER: Correct.

10 DR. CONNOR: Correct? Okay. Okay, all
11 right. Do you want this back or can I keep this?

12 Okay, --

13 HEARING OFFICER KRAMER: Just for the
14 record, which exhibit is that from?

15 MR. CARRIER: That's from exhibit 41.
16 It's from the desert tortoise translocation-
17 relocation plan, which was an attachment to
18 supplemental data response set 2-D, as in David,
19 which is exhibit 41.

20 HEARING OFFICER KRAMER: And what figure
21 is that from that exhibit?

22 MR. CARRIER: Oh, man. I'll look, hang
23 on a second.

24 HEARING OFFICER KRAMER: Well, does it
25 have a number on it?

1 MR. CARRIER: Well, I didn't print out
2 the whole figure. I just printed out the top
3 part.

4 HEARING OFFICER KRAMER: Oh, okay.
5 Well, I can ask Mr. Connor, is this going to be
6 important to your argument down the road?

7 DR. CONNOR: Where the data came from?

8 HEARING OFFICER KRAMER: Referring to
9 this, referring to that particular document?

10 DR. CONNOR: Where the correct data came
11 from?

12 HEARING OFFICER KRAMER: That you were
13 handed.

14 DR. CONNOR: No, no, no, I'm willing to
15 accept that these numbers are in the wrong order.

16 HEARING OFFICER KRAMER: Okay, well,
17 than I'll let it go then. But I just wanted to
18 make sure we have a clear record if we need to get
19 back to refer to that.

20 DR. CONNOR: Okay, so now we have a
21 corrected tortoises located, the number of
22 tortoises located column?

23 MR. CARRIER: Correct.

24 DR. CONNOR: Are you aware of how the
25 estimated calculated value of N, which is the

1 estimated number of tortoises on the site, is
2 actually determined?

3 MR. CARRIER: No, I'm not.

4 DR. CONNOR: Okay, it's a relatively
5 simple formula that requires --

6 MR. HARRIS: Well, wait a minute. The
7 witness answered the question, so --

8 DR. CONNOR: Okay.

9 MR. HARRIS: Is there another question
10 to follow?

11 DR. CONNOR: All right, okay. Can you
12 compare the data and the tortoises located to the
13 calculated value of N?

14 MR. CARRIER: No.

15 DR. CONNOR: You can't -- I mean, can
16 you compare the two columns?

17 MR. CARRIER: I'm not sure I understand
18 what you're asking.

19 DR. CONNOR: Well, I mean, can you see
20 the values that are in the two columns? Okay?
21 Under tortoises located in the first line it has
22 the number ten, which we've now corrected to five,
23 but let's just use the original table because I
24 think that's simpler. Okay?

25 And then the next column over,

1 calculated value of N is 20.

2 MR. CARRIER: Okay.

3 DR. CONNOR: Okay. And then if we look
4 at Ivanpah 2, the value, which is actually
5 correct, was three. And the calculated value of N
6 is six, is that correct? What it says there.

7 MR. CARRIER: Yes.

8 DR. CONNOR: Okay. And then the final
9 line there, Ivanpah 3, the number of tortoises
10 located is given as five. And then the calculated
11 value of N is ten.

12 MR. CARRIER: Yes.

13 DR. CONNOR: Okay, so in all cases, in
14 fact, the calculated value of N is just twice the
15 tortoises located?

16 MR. CARRIER: That's correct.

17 DR. CONNOR: All right. That's what I
18 meant about the comparison. I wasn't actually
19 asking you to do --

20 MR. CARRIER: No, that's --

21 DR. CONNOR: -- the comparison. So,
22 we're agreed, then, that at least for the data
23 that's in this table the actual estimated value of
24 the number of tortoises on those three sites is
25 twice the observed number of tortoises?

1 MR. CARRIER: That's what is calculated,
2 yes.

3 DR. CONNOR: Okay. All right, thank
4 you. Okay, are you -- wait just one second.

5 So it's your -- do you know what the
6 data in this report was generated for? What was
7 the purpose of this report?

8 MR. CARRIER: The purpose of this report
9 was to determine whether, or get some sense of the
10 level of tortoise density in the proposed
11 translocation sites to insure we relocated the
12 tortoises from the project site into those areas,
13 that it would not over-populate those
14 translocation sites.

15 DR. CONNOR: Okay, so from what you've
16 just said, what you're saying is basically then
17 the purpose of this report was to compare the
18 number of tortoises, the density of tortoises in
19 the relocation sites, translocation sites with the
20 project site, is that correct?

21 MR. CARRIER: Well, no, not necessarily
22 compare, but just to determine whether the density
23 would be above that Fish and Wildlife Service
24 number, so that if we transfer them in we would
25 exceed what their limit was that they gave us as

1 far as their protocol -- or not their protocol,
2 but their guidance, instructions.

3 DR. CONNOR: Okay, so this document was
4 then -- there is an exhibit that was, it's exhibit
5 73, applicant's exhibit 73, which is an email from
6 Brian Croft of the U.S. Fish and Wildlife Service.

7 MR. CARRIER: Yes, correct.

8 DR. CONNOR: In which he talks about the
9 latest report on desert tortoise surveys and
10 vegetation surveys in the proposed translocation
11 areas that were completed by CH2MHILL and Southern
12 Nevada Environmental, Inc.?

13 MR. CARRIER: Correct.

14 DR. CONNOR: Okay, that does refer to
15 this document?

16 MR. CARRIER: Yes, it does.

17 DR. CONNOR: Okay, all right, thank you.
18 I think that's enough questions on that document.

19 I have a few more general questions, and
20 that is, are you familiar with the line distance
21 sampling effort, the rangewide line distance
22 sampling effort?

23 MR. CLECKLER: I'm still not familiar
24 with the methodology.

25 DR. CONNOR: Okay. Have you viewed the

1 Fish and Wildlife Service's 2007 report? This was
2 submitted into evidence by Western Watersheds
3 Project. It's the latest Fish and Wildlife
4 Service report on the rangewide trans --

5 MR. HARRIS: Do you have an exhibit
6 number, Michael?

7 DR. CONNOR: Oh, do you have the exhibit
8 list? just one second, I'm sorry. It's exhibit
9 504; I'm sorry about that.

10 MR. COCHRAN: We were talking. Go
11 ahead.

12 DR. CONNOR: Oh, I'm sorry, okay, okay.
13 So are you familiar with the report?

14 MR. COCHRAN: I'm not familiar with the
15 report. I mean maybe if I saw it I --

16 DR. CONNOR: Okay, all right.

17 MR. COCHRAN: -- might be familiar. And
18 I did not review it. I am familiar with line
19 distance sampling and, you know, the idea behind
20 it, I mean, in general.

21 That is my understanding remembrances
22 that that was a sampling method to get after
23 trend. And was somewhat supplemented. I mean the
24 permanent study plots in terms of getting after
25 trends. You get more easier -- you get quicker

1 data and over a larger areas. Would that be --

2 DR. CONNOR: Yeah, are you familiar with
3 the methodology that's used to determine numbers
4 of tortoises on permanent study plots?

5 MR. COCHRAN: Yes, I have. It's been
6 awhile, but, yeah, I've been involved in the
7 permanent study plots.

8 DR. CONNOR: So these would be marked
9 and recaptured tortoise?

10 MR. COCHRAN: Correct. I haven't done
11 it, myself.

12 DR. CONNOR: Could you --

13 MR. COCHRAN: I've mainly gone out and
14 visited people doing them --

15 DR. CONNOR: Okay, okay.

16 MR. COCHRAN: -- and I'm familiar with
17 the methodology.

18 DR. CONNOR: Okay. Could you sort of
19 give a very brief description perhaps of what
20 happens with the mark and recapture study?

21 MR. COCHRAN: Well, on the permanent
22 study plots, I mean they've basically, you know,
23 you got a square kilometer, a square mile, and the
24 biologists are pretty much, you know, living out
25 there and basically know every individual, you

1 know, tortoise.

2 And they go out there, I believe it was
3 every ten years, something like that, or, you
4 know, long period. And basically they, you know,
5 located every tortoise. I mean I don't recall
6 there being much mark and recapture. And I don't
7 recall much in the way of, you know, any
8 estimating involved.

9 You know, they go back, let's say ten
10 years later, you know, they have marked, you know,
11 tortoises. And I think it was those study, the
12 permanent study plots, I mean in looking at the
13 recovery plan and the listing, that was the
14 primary source of the documentation for the
15 decline, or, you know, document declines.

16 DR. CONNOR: Okay, is anybody else on
17 the panel familiar with mark and recapture
18 studies?

19 MR. CLECKLER: I've participated in
20 those before --

21 DR. CONNOR: Okay.

22 MR. CLECKLER: -- where we've marked
23 tortoises.

24 DR. CONNOR: Okay, and so can you
25 describe what you actually do? I mean just a

1 little brief overview.

2 MR. HARRIS: I'm going to object on the
3 basis that this is not our testimony.

4 DR. CONNOR: Okay. All right. Okay, I
5 have another question then, and that is why do
6 biologists running the permanent study plots have
7 to do mark and recapture rather than just walk
8 over the study plot and count all the tortoises on
9 the square kilometer or the square mile?

10 MR. HARRIS: And, again, I'm going to
11 object to being beyond the scope of the direct
12 testimony here. These are questions for your
13 witnesses, if you'd like them.

14 DR. CONNOR: Okay.

15 MR. HARRIS: My witnesses did not
16 testify to these matters.

17 DR. CONNOR: Okay.

18 MR. RATLIFF: Do we have a ruling on the
19 objection?

20 DR. CONNOR: I'm not a lawyer, I have no
21 idea.

22 MS. SMITH: Are you withdrawing your
23 question?

24 DR. CONNOR: I could do -- should I
25 withdraw my question?

1 MS. SMITH: Go for broke and request a
2 ruling.

3 DR. CONNOR: Okay, I'll request a -- I'm
4 sorry, I'm no lawyer and I'm not familiar with
5 these proceedings.

6 MR. HARRIS: To your benefit.

7 PRESIDING MEMBER BYRON: No, we're
8 actually glad, we're actually very glad.

9 (Laughter.)

10 PRESIDING MEMBER BYRON: How about a
11 ruling, Mr. Kramer?

12 HEARING OFFICER KRAMER: I'm sorry, am I
13 not on? I sustain the objection. I think those
14 questions are best asked of the people who are
15 familiar with the study. And these gentlemen have
16 said that they're not.

17 DR. CONNOR: Okay. All right, thank
18 you. Okay, I have a few more questions if that's
19 okay.

20 One of you stated in the rebuttal
21 testimony, and stated this earlier this afternoon,
22 made the statement that recovery units were
23 designated for purposes of designing a reserve
24 system? And in the --

25 MR. CARRIER: Correct.

1 DR. CONNOR: In the rebuttal testimony
2 it's highlighted, so -- is that correct?

3 HEARING OFFICER KRAMER: You need to --

4 MS. SMITH: He said correct.

5 DR. CONNOR: Okay. Could one of you
6 point me to where in the recovery plan this is
7 mentioned?

8 MR. CARRIER: Yes, I think I could, --
9 grab a copy of the recovery plan. Somewhere in
10 there, you know, within the recovery plan they're
11 discussing the evolutionary significant units, you
12 know, what they are, the similarity in population,
13 et cetera, et cetera.

14 And that then equated to what they call,
15 that was synonymous, equated to recovery units.
16 Correct, that that was my remembrance. And then
17 -- right, and so then they had earlier than that,
18 I mean you remember they had a little graph like a
19 figure of what the optimal reserve design would
20 be.

21 And then they had some conceptual, you
22 know, what the DWMAs would look like. And then
23 later in the evolutionary significant units they
24 wanted to insure that they had an adequate design,
25 you know, large enough polygons, connectivity, et

1 cetera, et cetera, a host of biological
2 considerations for a reserve design.

3 So, in designing the DWMAs conceptually
4 and that's why earlier on those DWMAs encompass,
5 for example, this project area. I mean they were
6 somewhat conceptual. This is where we would want
7 agencies to be, you know, delineating and
8 demarcating their DWMAs.

9 And so I think it would be fair to
10 capture it as an exercise, not solely perhaps, but
11 an exercise in designing reserve design. So that
12 you capture a sufficient area within each
13 evolutionary significant unit, which then evolved
14 into recovery units.

15 DR. CONNOR: Okay. Are you aware that
16 the recovery plan equated evolutionarily
17 significant units and distinct population
18 segments? That was the reason why they used this
19 term? Are you familiar with that, or is that --

20 MR. COCHRAN: Distinct --

21 DR. CONNOR: It sounds like you're not
22 familiar. That's fine, that's fine. I --

23 MR. COCHRAN: Yeah, you introduced
24 another term there, evolutionary distinct unit, is
25 that what you said?

1 DR. CONNOR: No, evolutionary
2 significant unit, ESU.

3 MR. COCHRAN: Yeah, that equate -- okay.

4 DR. CONNOR: And a DPS.

5 MR. COCHRAN: And the DPS, again, is?

6 DR. CONNOR: Distinct population
7 segment.

8 MR. COCHRAN: Okay, no, I'm not familiar
9 how distinct population segment --

10 DR. CONNOR: Okay.

11 MR. COCHRAN: -- played into the
12 recovery plan in terms of the reserve design. No,
13 I'm not.

14 DR. CONNOR: Okay. The reason I was
15 asking is because the recovery plan specifies
16 that --

17 MR. HARRIS: Excuse me.

18 DR. CONNOR: I'm sorry.

19 MR. HARRIS: Is there a question?

20 DR. CONNOR: Okay.

21 MR. HARRIS: I mean I understand you're
22 not a lawyer, believe me, that's a benefit. My
23 wife is happy she's not one, too.

24 But, seriously, if we can stick with the
25 testimony of --

1 DR. CONNOR: Right. I think that's --
2 I'm going to finish my questions then. Thank you.

3 HEARING OFFICER KRAMER: Okay. Basin
4 and Range Watch. And, Mr. Emmerich, I'm not sure
5 that you were introduced to our court reporter, or
6 that he has the spelling of your last name.

7 MR. EMMERICH: Oh, okay, it's
8 E-m-m-e-r-i-c-h.

9 HEARING OFFICER KRAMER: And your first
10 name?

11 MR. EMMERICH: Kevin, K-e-v-i-n.

12 HEARING OFFICER KRAMER: Okay. And you
13 and Ms. Cunningham are dual representatives of
14 Basin and Range Watch, so, go ahead.

15 MR. EMMERICH: Correct. I just have a
16 couple of brief questions.

17 CROSS-EXAMINATION

18 BY MR. EMMERICH:

19 Q Question number one, were any of the 25
20 tortoises on the site that were found tested for
21 upper respiratory tract disease?

22 MR. COCHRAN: No.

23 MR. EMMERICH: Are there plans to?

24 MR. COCHRAN: That is a requirement of
25 the translocation plan.

1 MR. EMMERICH: Do you believe that it is
2 possible that stress can potentiate the disease in
3 individual animals, or tortoises that carry the
4 microplasma?

5 MR. COCHRAN: It's my opinion that
6 stress can never be ruled out as a factor, a
7 contributing factor in the disease.

8 MR. EMMERICH: Okay, thank you. That's
9 all I have.

10 HEARING OFFICER KRAMER: Thank you.
11 California Native Plant Society.

12 MR. ANDR•: Deciding at this very
13 moment. And it's going to be me.

14 HEARING OFFICER KRAMER: Okay, so,
15 please give us your name again for the record, and
16 go right ahead.

17 MR. ANDR•: Jim Andr,, A-n-d-r-,. Well,
18 I'm a botanist and I'm not a lawyer, so I think
19 it's probably the most relaxing moment for the
20 group up there. Maybe.

21 CROSS-EXAMINATION

22 BY MR. ANDR•:

23 Q There was some discussion about
24 vegetation and recovery, particularly from Mr.
25 Spaulding. So this question is primarily directed

1 at those comments. But all of you are welcome to
2 respond.

3 Mr. Spaulding, your statement about
4 substantial recovery along the corridor of I-15
5 that you've observed from you mentioned aerial
6 photos.

7 Is that something that's a personal
8 observation, or is that based on a report or a
9 study that was done along I-15?

10 DR. SPAULDING: I apologize for not
11 being entirely clear. The site that I was
12 referring to is a borrow pit site that is located
13 approximately a half a mile to the -- it's on the
14 north side of the interstate, and approximately a
15 half mile from the EH Well exit, not the entire
16 length of the interstate.

17 And I was referring to the area of
18 photography in that the easiest way to identify
19 that site is from aerial photography. It shows up
20 rather well in aerial photography.

21 When you walk out to the site on foot I
22 would expect that a non-botanist, a non-ecologist,
23 would not be aware that he or she was standing in
24 the middle of a early '60s era borrow pit, because
25 of the robustness of the vegetation recovery

1 there.

2 MR. ANDR•: When you say robustness,
3 well, what is that parameter? Is that cover and
4 structure somehow combined into some attribute?

5 DR. SPAULDING: No. It's a general term
6 and it refers to the fact that in comparing the
7 largely undisturbed vegetation immediately
8 adjacent to the borrow pit, it's dominated by
9 creosote and white -- sage.

10 If you walk into the borrow pit area
11 it's also supports primarily creosote and white --
12 sage with some cheeseweed hymenoclea salsola
13 associated with it.

14 MR. ANDR•: So you didn't mean to say
15 aerial photos, aerial photography as the material
16 that was used to examine and make the observation
17 of recovery along I-15. And you did not mean the
18 entire I-15 corridor through the Mojave Desert?

19 DR. SPAULDING: That's correct.

20 MR. ANDR•: Later you mentioned that
21 recovery is something that you can examine better
22 when you get on your hands and knees, such as on
23 the second rendition of the Kern pipeline, number
24 2.

25 What parameters are you examining there,

1 and what do you mean by recovery in that case,
2 say, versus the layperson walking into an area and
3 seeing cover?

4 DR. SPAULDING: I'm sorry, sir. Could
5 you repeat the question, since recovery and cover
6 seem to be so radically different, one to the
7 other.

8 MR. ANDR•: I'd like to ask the question
9 in a broader sense so that it's a little easier --
10 it allows you a little more flexibility in your
11 answer, if that's okay.

12 DR. SPAULDING: Not a problem.

13 MR. ANDR•: How would you define
14 recovery, or how would you clarify your definition
15 of recovery when you have discussed it in terms of
16 aerial photography as a tool for examining it?

17 Surficial features, such as sheen on
18 rocks. Cover -- I'm not done yet, sorry. Cover
19 vegetation, primary shrubs. And how would you
20 couch that in terms of how it applies to
21 tortoises, native vegetation or soils, which are
22 three different things?

23 MR. HARRIS: It's a compound question,
24 and I appreciate he's not an attorney. But could
25 we break it down into a little shorter bits, so --

1 MR. ANDR•: How would you define
2 recovery as habitat suitable for desert tortoise
3 recolonization? Recovery of vegetation.

4 DR. SPAULDING: With all due respect,
5 I'll treat that as two questions, in and of
6 itself.

7 Recovery I would first define as the --
8 after disturbance would be essentially, as you
9 probably know, a successional process as first
10 identified by Clements, if you will, in the early
11 20th century. In which, over time, after a major
12 disturbance from which a large part or entire
13 ground vegetation cover is removed, you first have
14 colonizers, and then you have successional
15 species, first early and then later successional
16 species.

17 And over time the composition of the
18 vegetation of the disturbed site has a tendency,
19 in terms of species composition and in terms of
20 species, if you will, richness, and in terms of
21 cover to resemble more and more the undisturbed
22 vegetation. That is, generally speaking,
23 recovery, as I refer to it.

24 And I believe the second part of your
25 question was how does that relate to desert

1 tortoise habitat?

2 MR. ANDR•: That's right.

3 DR. SPAULDING: And this may be
4 considered simplistic by some, but it's generally
5 considered to be an ecological principle that the
6 more productive a plant community is, and the more
7 diverse a plant community is, the greater the
8 carrying capacity of that plant community for
9 vertebrates, including desert tortoise.

10 MR. ANDR•: Also, in a vegetation
11 association you have cryptobiotic species, mosses,
12 lichen and cyanobacteria, blue-green algae, et
13 cetera. Those are in the soil crusts which are in
14 the upper layer of the soil.

15 My question --

16 (Laughter.)

17 MR. ANDR•: -- when that topsoil is
18 disturbed, are you aware of the rates of recovery
19 and the importance the soil crusts play in
20 reestablishing native vegetation, which is also
21 important in reestablishing healthy tortoise
22 habitat?

23 DR. SPAULDING: We are aware of the
24 general importance, ecological importance of
25 cryptobiotic crust, and pay particular attention

1 to its essential, well, large-scale absence.

2 There are patches out there where you
3 can find it, but generally cryptobiotic crust is
4 absent. And we consider that to be due to the
5 fact that it's on the west side of the valley.

6 Cryptobiotic crust often does best on
7 silty substrate, which is on the downwind side of
8 the valley, which would be on the other side, the
9 east side of the valley.

10 MR. ANDR•: Are you aware of Nicole
11 Petriasek's PhD thesis where she's looking at soil
12 crust development in the Ivanpah Valley?

13 DR. SPAULDING: No, sir, I'm not.

14 MR. ANDR•: Do you know Robert Graham,
15 Bob Graham at UCR? He's a professor in soil
16 ecology.

17 DR. SPAULDING: He and I have crossed
18 paths, I do believe, yes, sir.

19 MR. ANDR•: Let's keep this going. When
20 you cited reports or studies, I assume
21 publications regarding recovery at mine sites,
22 showing recovery in 50 years, what were those
23 papers? Who were the authors? And re-examine
24 those conclusions, if you can?

25 DR. SPAULDING: I'll be happy to,

1 although I'd offer a small correction. I do not
2 believe I said that the mine sites or studies
3 demonstrated recovery within 50 years. I
4 emphasized that they demonstrated recovery of one
5 sort or another.

6 The studies were conducted primarily by
7 the U.S. Geological Survey, and Robert Webb of the
8 USGS, Tucson, was the principal author, or at
9 least senior scientist on a number of those
10 studies.

11 They were in the Greenwater Mountains of
12 the Funeral Range of California. I remember
13 several mining sites, or mining -- yeah, mining
14 sites. They're towns, boom towns that had since
15 been abandoned and structures had disappeared.

16 Nevertheless, you could identify the
17 effects of the mining, as well as the types of re-
18 vegetation that had gone on.

19 Those, generally speaking, in terms of
20 timelines, demonstrated recovery on the order of
21 70 to 100 years.

22 Dr. Webb was also senior scientist and
23 lead on some of the studies of successional
24 processes on the World War II sites, commonly
25 referred to as Patton's training facilities, in

1 both the California, as well as the Arizona
2 portions of the, in this case, Colorado Desert.

3 MR. ANDR•: In Bob Webb's discussion in
4 that paper, does he distinguish between function,
5 in terms of -- well, in his discussion about
6 recovery, does he show the difference between the
7 function of a re-establish native vegetation and
8 the covered, the percent cover? What parameters
9 is he focusing on in his --

10 MR. HARRIS: I'm going to object to the
11 question that it's outside the scope of our
12 witnesses' testimony. And, again, I'm trying
13 really not to be who I am. But this is not within
14 our testimony.

15 MR. ANDR•: I guess my point is do you
16 recognize that recovery is not just a visual
17 concept --

18 HEARING OFFICER KRAMER: Well, let me
19 stop you there, because I need to rule on the
20 objection. Let me ask you where you're going with
21 all this? Starting to wonder about relevance.

22 MR. ANDR•: Recovery is a very vague
23 term, as used throughout both the vegetation
24 section and the tortoise habitat section. And
25 yet, the actual meaning can -- you know, is

1 important in discussing impacts, which is why
2 we're here.

3 HEARING OFFICER KRAMER: And are you
4 attempting to impeach these witnesses' testimony
5 and conclusions by reference to the work of
6 others?

7 MR. ANDR•: I'm responding to the use of
8 references of others so I'm clear on which papers,
9 for instance, he was citing.

10 HEARING OFFICER KRAMER: Okay, your
11 questions are kind of beating around that bush,
12 but I think those, certainly finding out what
13 underlies their opinions is appropriate
14 examination material.

15 So, I'll sustain the objection, but
16 allow you to continue along those lines.

17 MR. ANDR•: Okay. I was beginning to
18 ask, and I will, if -- and this is, again, not
19 just to Mr. Spaulding, but to all of you. In the
20 definition of recovery I think, you know, a visual
21 recovery is a very broad term. And when you
22 stated earlier, I believe it was Mr. Spaulding,
23 that the Kern pipeline number two, the second one
24 that was put in, in I believe, 2002, there was re-
25 vegetation there where they planted a seed mix.

1 Whereas in the 1991 corridor they did not.

2 Would you observe that that recovery is,
3 as you pointed out, unusual in that it has gone so
4 well, a sufficient recovery in terms of desert
5 tortoise habitat?

6 DR. SPAULDING: All I can say is it's
7 going in the right direction.

8 MR. ANDR•: Are you familiar with the
9 dominant shrub species that they planted on the
10 right-of-way?

11 MR. HARRIS: I'm going to object again
12 to questions about things that aren't in our
13 project.

14 HEARING OFFICER KRAMER: Well, I'll
15 overrule the objection. He's allowed to ask the
16 witness about an example the witness previously
17 gave. And to probe further into the basis for
18 that opinion.

19 DR. SPAULDING: I would have to look at
20 our report of the transects that were taken on the
21 Kern River right-of-way to refresh my memory with
22 what species were recorded as being the most
23 important there.

24 But we did record them by taking
25 standard transects and/or relev,s. I believe it

1 was relev,s, actually.

2 MR. ANDR•: Okay, I have no further
3 questions.

4 HEARING OFFICER KRAMER: Thank you. Next
5 would be the Center for Biological Diversity.

6 MS. ANDERSON: Hi, I'm Ileene Anderson.
7 I'm also not an attorney, but I have divided up my
8 sentences so that I'm only asking one question at
9 a time. And I just have a few questions for you.

10 CROSS-EXAMINATION

11 BY MS. ANDERSON:

12 Q First, I want to talk a little bit about
13 the northeastern recovery unit and how the --
14 what's on the landscape currently is affecting or
15 not that population.

16 So, for the desert tortoise folks, do
17 you agree that underpasses have been used to
18 provide safe pathways for desert tortoise to get
19 under roads in the past? Are you aware of those?

20 MR. CLECKLER: Yes, I'm aware of at
21 least one study that was, I believe, funded by the
22 CEC.

23 MS. ANDERSON: And do you agree that
24 there are underpasses under I-15 that provide
25 opportunities for animals, including desert

1 tortoise, to pass under the interstate?

2 MR. COCHRAN: You're asking are we aware
3 in the general area of the project are there
4 underpasses that have been put -- I'm not aware of
5 any. I'm not aware, I just don't know.

6 MR. CLECKLER: And I'm not aware. I'm
7 not familiar with the wildlife passage
8 opportunities along that stretch of I-15.

9 MS. ANDERSON: And do you have evidence
10 that shows that the I-15 has impacted the desert
11 tortoise population on the site?

12 MR. HARRIS: I'm going to object.
13 Again, it's not a question about our testimony.
14 She's asking them for evidence on a panel.

15 MS. ANDERSON: I believe that it is part
16 of your testimony with regards to isolation of the
17 population from the rest of the recovery unit.

18 MR. HARRIS: If I'm wrong about that, I
19 apologize, but it doesn't sound like our
20 testimony. If you have a reference.

21 HEARING OFFICER KRAMER: Well,
22 regardless of that, it is probing to find out what
23 information your experts had in their minds when
24 they formulated their opinions.

25 And it may be that down the road she

1 will suggest that knowing that information might
2 have affected their opinions.

3 And I think that's a perfectly
4 appropriate line of questioning. So the objection
5 is overruled.

6 MS. ANDERSON: Okay. It's actually on
7 page B-2, which is the applicant's rebuttal
8 testimony.

9 HEARING OFFICER KRAMER: You found a
10 page number on that?

11 MS. ANDERSON: I did. In the third
12 paragraph on that page.

13 HEARING OFFICER KRAMER: Okay, well, in
14 any event the objection was overruled, so --

15 MS. ANDERSON: Shall I read it, I'd be
16 happy to --

17 HEARING OFFICER KRAMER: -- you may go
18 forward. And please answer the question.

19 MR. COCHRAN: If I understand the
20 question, hopefully -- maybe I'm giving the answer
21 to the wrong question, but we did view interstate
22 15 as fragmenting desert tortoise habitat and
23 serving to isolate the northern part of the
24 Ivanpah Valley from the southern part of the
25 Ivanpah Valley.

1 And also I do believe we -- we did
2 identify it as also fragmenting and isolating it
3 from the rest of the evolutionary significant
4 unit. That, along with the Clark Mountains, is a
5 barrier to movement.

6 MS. ANDERSON: But do you have a study
7 that you were citing on that? Or is that -- how
8 did you come to that conclusion?

9 MR. COCHRAN: I came to the conclusion
10 because it's an interstate highway that is fenced.
11 It's not fenced? Okay, I came to the conclusion
12 it's isolated because it's an interstate highway
13 and I visualize the tortoise, you know, moving
14 across the highway as, you know, a barrier to its
15 movement.

16 MS. ANDERSON: Okay, thank you. I have
17 just a couple of other questions. Actually this
18 came from something that you had talked about
19 earlier, Mr. Cochran, I believe, with regards to
20 the linear projects.

21 And did I understand you correctly when
22 you said that desert tortoise were moved off of
23 those sites, but were still probably within their
24 home territories? Is that --

25 MR. COCHRAN: That's correct. On, you

1 know, pipeline projects, you know, standard
2 mitigation is to, you know, clear the right-of-
3 way, you know, relocate the tortoises. And if I
4 remember correctly, they stipulate that they be
5 moved no more than 300 feet.

6 So you have a tortoise, you know, you've
7 destroyed a burrow, you need to move the tortoise.
8 You either find a comparable burrow within 300
9 feet of the right-of-way, or you create an
10 artificial tortoise.

11 And the assumption is, yes, that it's
12 still within its home area.

13 MS. ANDERSON: And were the desert
14 tortoise home ranges on this project site mapped?

15 MR. COCHRAN: No.

16 MS. ANDERSON: So will the tortoises,
17 desert tortoises there onsite still be within
18 their home territories, or home ranges?

19 MR. COCHRAN: Let me -- a little bit
20 elaborate here. The intent is to move, as on our
21 pipeline project, to move the tortoises the
22 shortest distance possible. You know, that would
23 be my opinion. But the shorter the distance the
24 better. Because that increases the likelihood
25 that it would be, you know, within it's own home

1 range.

2 I mean if it were to be translocated,
3 you know, ten miles away, we can be guaranteed
4 that it would be (sic) within its own home range.

5 But to answer your question, no. For
6 any individual tortoise being moved, we don't know
7 what its home area is. If it was an area that it
8 was being translocated, meant it had to be moved
9 more than 1000 meters, no, there is no data to say
10 whether it's within its home area or not.

11 MS. ANDERSON: Thank you, that's all of
12 my questions.

13 HEARING OFFICER KRAMER: Did you say
14 that the home range could be as large as ten
15 miles?

16 MR. COCHRAN: No, I meant it the other
17 way, that just to throw out a wild number, if it's
18 moved 100 miles -- I should have said that, then I
19 would, you know, be sure that it was not within
20 its home range.

21 HEARING OFFICER KRAMER: You said not
22 when you should have --

23 MR. COCHRAN: Thank you, yeah.

24 HEARING OFFICER KRAMER: -- or the
25 opposite. Okay.

1 MR. COCHRAN: Please correct me.

2 HEARING OFFICER KRAMER: The Sierra
3 Club.

4 MS. SMITH: Thank you, Mr. Kramer. I
5 don't have any questions for this panel.

6 HEARING OFFICER KRAMER: Okay. Any
7 redirect, Mr. Harris?

8 MR. HARRIS: God, no. No. We're done.

9 (Laughter.)

10 HEARING OFFICER KRAMER: Okay. And that
11 will end this panel. We may have a question.

12 (Pause.)

13 HEARING OFFICER KRAMER: Mr. Ratliff,
14 while we're waiting, did you intend to present any
15 direct testimony from your witnesses?

16 MR. RATLIFF: Yes.

17 HEARING OFFICER KRAMER: Okay.

18 (Pause.)

19 HEARING OFFICER KRAMER: Okay, we are
20 finished with this panel, thank you.

21 Mr Ratliff, did you prefer to present
22 your witnesses as a panel, or individually?

23 MR. RATLIFF: We have two witnesses. We
24 have Mr. Scott Flint from the Department of Fish
25 and Game, and we have Ms. Susan Sanders. These

1 are our witnesses for desert tortoise habitat and
2 mitigation, that portion of the staff's FSA that
3 addresses that.

4 Actually if I could -- it might work if
5 I could recover -- it looks like Mr. Harris is
6 moving, so I could actually maybe have my
7 witnesses alongside me here.

8 PRESIDING MEMBER BYRON: Mr. Ratliff, a
9 little louder, please.

10 HEARING OFFICER KRAMER: Okay, well, can
11 Mr. Flint and Ms. --

12 MR. RATLIFF: Yes.

13 HEARING OFFICER KRAMER: -- Ms. Sanders
14 come forward. Were both of you sworn?

15 MR. FLINT: Yes.

16 HEARING OFFICER KRAMER: So, please say
17 your names again for the benefit of the court
18 reporter.

19 MR. FLINT: I am Scott Flint with the
20 California Fish and Game, S-c-o-t-t F-l-i-n-t.

21 MS. SANDERS: Susan Sanders, S-u-s-a-n
22 S-a-n-d-e-r-s, with the Energy Commission.

23 HEARING OFFICER KRAMER: Mr. Ratliff.

24 MR. RATLIFF: Mr. Kramer, I propose to
25 ask direct questions to each of the witnesses in

1 turn, starting with Mr. Flint.

2 DIRECT EXAMINATION

3 BY MR. RATLIFF:

4 Q Mr. Flint, what is your position at the
5 Department of Fish and Game?

6 MR. FLINT: At the Department of Fish
7 and Game I'm presently the Renewable Energy
8 Program Manager with the department.

9 And my experience with the department
10 has extended through 19 years of progressively
11 responsible work, both evaluating sites under --
12 environmental impacts of sites pursuant to CEQA,
13 California Environmental Quality Act.

14 In the last eight years I have had
15 primary responsibility for supervising the
16 statewide California Endangered Species Act
17 permitting programs, the CESA program.

18 And for five of those years also
19 directly supervised and participated in review and
20 approval of permits under CESA. Also under
21 section 1600 of the Fish and Game Code, lake and
22 streambed alteration portion. And also at the
23 same time, oversaw the timber harvest program in
24 the department.

25 Many of those eight years I've also had

1 primary duties working directly with CEC to
2 consult and advise on energy projects, and also
3 with the Department of Transportation on large
4 projects.

5 MR. RATLIFF: Is the -- I'm sorry, go
6 ahead.

7 MR. FLINT: And most current -- I
8 accepted my most current position as the Renewable
9 Energy Program Manager in December 2008.

10 MR. RATLIFF: Is the Department of Fish
11 and Game the state trustee agency for natural
12 resources?

13 MR. FLINT: Yes, that department is a
14 state trustee and that means that the department
15 is charged with protecting the fish and wildlife
16 habitat -- fish and wildlife resources of the
17 state and the habitats on which they depend for
18 the people of California.

19 Our mission is to preserve and protect
20 those habitats and resources for their intrinsic
21 value, enjoyment and use of the public.

22 We are also charged -- we have several
23 roles under the -- under CEQA, the California
24 Environmental Quality Act. One of which is
25 participating in that process as a trustee,

1 commenting on projects with regard to their
2 effects. And recommending mitigation measures for
3 those trust resources.

4 We also directly are responsible through
5 the Fish and Game Code for administering and
6 protecting and managing species under CESA, the
7 California Environmental Quality Act, and section
8 16000 of the Fish and Game Code, and other various
9 codes sections of that code.

10 MR. RATLIFF: And when you refer to
11 section 16000 of the Fish and Game Code, are you
12 referring to the streambed alteration agreement
13 requirements in the Fish and Game Code?

14 MR. FLINT: Yes, I am.

15 MR. RATLIFF: Okay. In addition to
16 being the state trustee agency, normally the
17 Department of Fish and Game would issue a take
18 permit, is that correct, where such would be
19 appropriate?

20 MR. FLINT: That is correct. CESA --
21 under CESA provisions when certain -- when the
22 department makes certain findings on a project
23 that may take endangered species, CESA allows us
24 to issue a permit for incidental take of those
25 species. And we do so routinely on projects

1 throughout through the state, of all types.

2 MR. RATLIFF: Am I correct in describing
3 your role as a cooperating -- an agency that's
4 cooperating with the Energy Commission on the
5 solar plant cases, such that the take permit
6 provisions are being placed in the Energy
7 Commission's in-lieu siting permit?

8 MR. FLINT: Yes, we work to cooperate
9 fully with the Energy Commission. We have, for
10 years, worked in cooperative jurisdiction with the
11 Energy Commission in permitting in power plant and
12 siting cases.

13 With the Governor's executive order or
14 November 2008, we have worked closely with the
15 Commission to develop a fully integrated process
16 that is attempting to speed up the processing of
17 permitting for solar plants and other renewable
18 energy plants in California.

19 So that was our directive and that's our
20 mission. And we work closely with the Commission
21 to achieve that goal.

22 MR. RATLIFF: What is the advantage to
23 having the take permit conditions put in the
24 Energy Commission permit from the standpoint of
25 the applicant?

1 MR. FLINT: The advantages would be
2 several. One I just mentioned is to significantly
3 speed up the process. If the processes were not
4 melded such as they are now, the department would
5 have additional work to issue separate 1600
6 streambed agreements and/or separate incidental
7 take permits under our authorities to the
8 projects. And that would have them usually at the
9 close or after the Commission decision on the
10 project. So this speeds them up immensely.

11 It's also, as directed in the Governor's
12 executive order, the department is also working
13 with other agencies in the Renewable Energy Action
14 Team, or REAT. That includes BLM and the Fish and
15 Wildlife Service and CEC, as members, to expedite
16 all renewables no matter what the permitting
17 jurisdiction.

18 So the department is working with local
19 agencies and with BLM for projects under their
20 purview directly. And so the other benefit of
21 working that way is to have -- is to be
22 coordinated on all fronts, and also offer
23 opportunities to coordinate mitigation and
24 biological analyses over multiple projects, so
25 that they can -- so that the projects can be --

1 the biological portion of the project mitigation,
2 impacts of mitigation, can be worked out as soon
3 as possible.

4 Mitigations can be folded together so
5 that they move ahead efficiently and not tie up
6 projects and applicants.

7 MR. RATLIFF: Has the department
8 collaborated with the Energy Commission Staff in
9 proposing the conditions of certification for the
10 mitigation for the desert tortoise impacts?

11 MR. FLINT: Yes, the department has
12 cooperated with the Commission since mid to late
13 2008 on this project. And also with the other
14 folks with jurisdiction over the project. And
15 also with the project applicants.

16 MR. RATLIFF: Do you think the
17 department supports the conditions that the staff
18 has proposed, and the conditions of certification
19 set forth in the final staff assessment?

20 MR. FLINT: Yes. The department does
21 support in full the recommendations in the final
22 staff assessment. In particular, we were charged
23 with the CESA responsibilities for working with
24 the Service and BLM and the Commission to develop
25 the desert tortoise mitigation of the portion of

1 the AFC, of the final staff assessment.

2 And that is reflected in bio-17. Those
3 conditions in bio-17 reflect the recommendations
4 of the Department of Fish and Game to the CEC
5 Staff.

6 MR. RATLIFF: If all of those conditions
7 are adopted by the Commission and are fully
8 implemented, is it your opinion that the
9 California Endangered Species Act requirement of
10 full mitigation will have been met?

11 MR. FLINT: Typically when the
12 department issues its permits it must make a
13 series of findings of fact. One of those is is
14 the project fully mitigated pursuant to CESA for
15 all impacts of the taking that the project may
16 cause.

17 And on this particular project I believe
18 that the conditions, as outlined, mostly get us
19 there. There is one component of the mitigation
20 that is not completely worked out yet, and that is
21 a portion of the mitigation which would allow and
22 credit management on existing public lands for the
23 benefit of the tortoise, for the desert tortoise.

24 And those majors are still being worked
25 out amongst the staffs of BLM and Fish and Game.

1 And that is in process as we speak.

2 Once we have identified a range of
3 alternatives and actions from the recovery plan,
4 from the desert tortoise recovery plan, that we
5 think are appropriate management actions to take
6 place on public lands, and we are trying to
7 develop the right combination of those projects
8 that would essentially get the most bang for the
9 buck, or be of the most benefit for the species
10 out there on the ground.

11 So we are going through that exercise
12 right now with the Fish and Wildlife Service and
13 the desert tortoise recovery office staff of the
14 Fish and Wildlife Service.

15 MR. RATLIFF: So you're referring to the
16 enhancement activities that would be funded by the
17 mitigation that the BLM would require, is that
18 correct?

19 MR. FLINT: Yes.

20 MR. RATLIFF: And has there been
21 progress in determining what that mitigation would
22 be?

23 MR. FLINT: Yes, there is. We, as I
24 said, we have a list of projects, and we are
25 working on determining which of those are the most

1 appropriate. We have a menu to choose from now.
2 They're from the recovery plan. They've been
3 shared with the applicant and the agencies.

4 We are doing some additional biological
5 analysis again to figure out which combinations of
6 those actions are the most benefit to the species
7 if they're implemented.

8 And once we have those recommendations
9 nailed down, we believe that the project would be
10 fully mitigated with those details worked out.

11 MR. RATLIFF: Are you generally familiar
12 with the past practice of the Department of Fish
13 and Game regarding take permit requirements for
14 large projects within the habitat of species
15 listed pursuant to the California Endangered
16 Species Act?

17 MR. FLINT: Yes, I'm very familiar. For
18 the eight years I have overseen the CESA
19 permitting program I have reviewed every CESA
20 permit issued by the department for all types of
21 projects. And many of them are not large
22 projects. There have been at least in the low
23 hundreds number of permits I have reviewed. Five
24 or ten or 15 of those may have been to energy
25 generation projects, specifically with CEC.

1 The largest volume of permits come out
2 of our desert area region or in the west Mojave
3 and the eastern Mojave because of significant
4 development out there, particularly energy and
5 energy transmission activities and pipeline
6 activities. So, I'm very familiar with that.

7 And we also, in the desert, permit
8 mining activities, private activities on federal
9 land, including mines. And we've done several of
10 those.

11 So maybe about eight to ten very very
12 large projects, and including this one, that I
13 have worked on. So I'm very familiar with what
14 the department recommends, what our past practice
15 is, and how we consistently deal with those in our
16 permitting.

17 MR. RATLIFF: Has this past practice
18 required ratio purchase of habitat and reservation
19 of that habitat in perpetuity for listed species?

20 MR. FLINT: Yes, it has. But I want to
21 explain that ratios are not the initial basis for
22 determining mitigation.

23 The department works to use the best
24 available project site-specific information and
25 examine the parameters of that information,

1 including habitat quality, size of the project,
2 type of the impact, factoring in avoidance
3 measures and other measures like that to determine
4 what the actual offset of compensation ratio to a
5 project would be.

6 So it's biologically based. There are
7 some assumptions made in that process. Because we
8 use the best available existing information and we
9 don't recommend studying sites to death. We need
10 to move forward and make decisions. So we use the
11 best available information and move forward.

12 So we use that process of biological
13 information to determine the mitigation
14 requirements. And then oftentimes they're -- it's
15 easy, after you see X acres of impact versus X
16 acres of compensation to calculate a ratio.
17 Anybody can do that.

18 But then it becomes a convenient
19 shortcut way to describe the mitigation
20 requirements to folks. So ratios are in permits
21 sometimes. Ratios are bandied about quite a bit.
22 Ratios actually make it easier on some projects
23 for the applicants to assess and be able to
24 fulfill their permitting requirements.

25 But, again, ratio is not the initial

1 point. It's really the biological situation,
2 site-specific biological situation that we take
3 into account. And then that comes out or is
4 expressed often as a ratio.

5 So, yes, we consistently apply that
6 approach to all permitting statewide.

7 MR. RATLIFF: Are you familiar with the
8 Energy Commission's similar requirements for
9 mitigation for projects that it licenses?

10 MR. FLINT: Yes, I am. And in cases
11 where I've worked with the Energy Commission, both
12 other folks at the department and myself,
13 personally, we are typically providing advice to
14 the Energy Commission and we're typically in full
15 agreement on the application of those mitigations.
16 And consistently they reflect what the department
17 would recommend in its permits.

18 MR. RATLIFF: In your opinion are the
19 conditions in the staff FSA consistent with the
20 Department of Fish and Game's and the Energy
21 Commission's best practices?

22 MR. FLINT: Yes. The measures in the
23 final staff assessment are consistent. The
24 primary desert tortoise mitigation requirements in
25 there include a portion of private land habitat

1 acquisition. And that acquisition -- there are
2 some -- there's a hierarchy of some different
3 levels of -- different things we are -- that we
4 would try to achieve with those acquisitions.

5 We would look at things like in-filling
6 existing BLM/public lands where they're in-
7 holdings within there through purchase. We'd be
8 looking at targeting, especially in the case of
9 desert tortoise.

10 And given the situation in the desert
11 with a large number of large facilities planned,
12 targeting and making sure we insure connectivity
13 for desert tortoise between already protected
14 areas and insuring that species can stay --
15 populations stay connected genetically.

16 So we would -- and then looking at new
17 habitat areas, quality habitat areas that can also
18 be conserved to benefit the species. So, we would
19 have a hierarchy of decisionmaking process through
20 acquisition.

21 We have the same sort of -- that
22 acquisition, coupled with the management options
23 that we also are working toward final
24 identification of, and applying on public lands,
25 are consistent with the way we have approached our

1 mitigations in past CESA permitting.

2 MR. RATLIFF: Would the Department of
3 Fish and Game typically require bonding or what is
4 sometimes called the security for the subsequent
5 purchase and preservation of lands?

6 MR. FLINT: Typically what the
7 department does, as a practice, again to speed up
8 the projects and allow the proponents to go
9 forward with their projects as soon as reasonably
10 possible, upon issuance of the CESA permit the
11 department will work with the applicant to
12 estimate the costs, the potential costs of the
13 compliance requirement.

14 So, for land acquisition we will use
15 recent land appraisals and calculate the potential
16 value needed to acquire the land specified in the
17 permit.

18 We would then have a number established
19 for long-term enhancement and management of that
20 land. And then an additional enhancement figure.
21 And those figures are developed through direct
22 department experience with land management. So we
23 develop a per-acre cost for land management.

24 We factor that into the number of acres
25 being preserved. And for some initial

1 enhancement, any initial work or fencing that need
2 to be done to improve the land immediately, that's
3 acquired for the benefit of the species.

4 That's basically -- we make estimates of
5 that. And then we roll that all up and allow the
6 applicant to post a security. Typically a letter
7 of credit in that amount to secure the mitigation
8 obligations. And then they can proceed with their
9 project.

10 So we don't typically -- some applicants
11 prefer to acquire things ahead of time. And, of
12 course, that's a more certain process. But it's
13 become standard practice to require the bonding
14 and allow the project to go forward.

15 In that scenario the responsibility for
16 identifying and acquiring the mitigation lands, as
17 obligated by the permit, remain with the
18 applicant. They do not become the responsibility
19 of the state or the department.

20 MR. RATLIFF: Alluding to something that
21 was discussed earlier, can you describe the -- and
22 explain the different approaches and roles of the
23 Bureau of Land Management and the Department of
24 Fish and Game in addressing cumulative desert
25 tortoise habitat issues?

1 MR. FLINT: Well, in discussion of this
2 there's been -- there's often mention of
3 disagreement between the state and federal
4 government, or different standards.

5 Basically there's two different things
6 going on here. Primarily what leads to
7 differences in the way BLM would recommend things
8 being done on their land versus what the
9 department would recommend in the CESA permit,
10 under CESA. And they're two separate things and
11 they're two separate missions.

12 The assessment and the land use
13 management plans that BLM does for its lands are
14 directed at allowing it to manage those lands that
15 it holds in trust.

16 So basically the land use management
17 plans are directed to manage existing plans, and
18 are developed to deal with what exists -- lands,
19 excuse me, and they are developed to manage and
20 address what exists on those properties, and not
21 beyond the boundaries of those properties.

22 The department's responsibility under
23 CESA is different. The department's
24 responsibility is to protect and manage the
25 species throughout its entire range regardless of

1 ownership of the property. And, again, it's a
2 protection of management and a permitting role
3 that is granted under CESA that protects the
4 species, as a whole, throughout its range.

5 So, we don't -- we aren't limited to
6 working with any particular boundaries. And we
7 don't make our decisions based on what we need to
8 do within the sphere of the lands that we own. So
9 there's two different processes there that often
10 results in different approaches between the two
11 agencies.

12 Regardless of that we have a good track
13 record of working with BLM in the desert,
14 particularly. We have many projects, especially
15 pipeline projects, and even large mining projects
16 that occur and cross between private and BLM lands
17 as they go through the desert.

18 We work jointly with BLM and its staff
19 to permit those projects and work out appropriate
20 mitigations under our respective authorities and
21 missions.

22 MR. RATLIFF: In your opinion have the
23 agencies worked together to develop a joint
24 approach that is successful with regard to the
25 habitat issues regarding desert tortoise?

1 MR. FLINT: Yes. There has been --
2 well, for the requirements for Ivanpah the
3 department has worked with and met extensively
4 multiple times with the staff of BLM and the Fish
5 and Wildlife Service since at least October 2008.

6 And in that process, and as directed by
7 the Governor in his executive order, we have
8 worked to basically assemble or layer together our
9 different mitigation requirements.

10 So I wouldn't state exactly as I've
11 heard it stated here earlier today that the Fish
12 and Game requires two-to-one mitigation, BLM
13 requires one-to-one mitigation.

14 What we've done, working with BLM and
15 the CEC, is to blend the mitigation requirements
16 so the overall project mitigation is a three-to-
17 one requirement under CESA, but when properly laid
18 out would allow the department to recommend to the
19 Commission Staff that the project will be fully
20 mitigated. And so there is a three-to-one
21 component.

22 What we've agreed to do, working with
23 the BLM, is agree to work together so that a one-
24 to-one component of the three-to-one mitigation is
25 what BLM would typically require. And it would

1 consist of management primarily on BLM lands. And
2 that management would be a list of activities that
3 I talked about us still working on developing.

4 The remainder of the three-to-one
5 requirement would be two-to-one acquisition.
6 Again, BLM and the department would work together
7 directing where that acquisition went, and
8 deciding who managed that land that was acquired.

9 And it would be -- that responsibility
10 would be shared most appropriately based on who
11 was managing surrounding lands and what made the
12 most sense -- the most efficient sense and
13 biological sense in keeping those lands together
14 and making decisions about who manages those.

15 So that's how we've integrated our
16 mitigation specifically in the Ivanpah sense. And
17 we want to, as a way to expedite and facilitate
18 the solar projects getting on the ground, and the
19 other renewable projects getting on the ground, we
20 want to work together with the different
21 jurisdictional combinations that permit these
22 projects, and take the exact same approach.

23 MR. RATLIFF: One quick additional item,
24 Mr. Flint. You said that you'd had experience
25 with streambed alteration agreements that your

1 agency would normally issue for these kinds of
2 projects.

3 Could you describe whether one would be
4 required here, and why?

5 MR. FLINT: Yes, I do have direct
6 knowledge of that. Streambed alteration agreement
7 is required when there is either a obstruction,
8 discharge or removal or a placement of something
9 into a bed, bank and channel of a river, lake or
10 stream.

11 That includes jurisdiction for 1600 in
12 the desert would include ephemeral washes. And
13 the department has consistently exercised that
14 jurisdiction throughout the desert. And required
15 and issued streambed alteration agreements for
16 projects that impact bed, bank and channel.

17 What is required -- again, this is an
18 independent section of the Fish and Game Code, and
19 what's required by it is spelled out there. But
20 it was essentially it's -- the purpose of the
21 section is to insure that the fish and wildlife
22 resources impacted by the projects that affect
23 bed, bank and channel are protected. Impacts
24 minimized and/or mitigated as necessary.

25 So that, again, is separate from CESA,

1 separate from CEQA. It's a separate requirement
2 under statute.

3 In the case of Ivanpah with the large
4 amount of washes and ephemeral drainages that
5 cross through the site, the department would
6 require streambed alteration agreement for this
7 project.

8 MR. RATLIFF: What is your reaction to
9 the applicant's testimony that it doesn't need to
10 comply with the conditions that staff proposed if
11 there isn't a significant impact regarding the
12 streambed alteration agreement proposal?

13 MR. FLINT: Again, attaching the
14 requirement of a significant impact to a streambed
15 alteration agreement requirement is incorrect. In
16 the application of the streambed alteration
17 program, and in the statute, itself, it describes
18 the threshold for requiring the agreement to be a
19 substantial impact to bed, bank or channel, not
20 significant impact. Which has connotations under
21 CEQA.

22 And also establishes the department of
23 the sole determiner of what a substantial impact
24 is within a bed, bank or channel.

25 So, in this case, with CEC having the

1 authority to issue the conditions, we have worked
2 with CEC to incorporate the appropriate
3 mitigations for the streambed impacts into the
4 final staff assessment.

5 And we see no reason or basis to dismiss
6 bio-20, which I believe is bio-20, for offsetting
7 the streambed impacts at the site, project site.

8 MR. RATLIFF: Thank you, Mr. Flint. I
9 have five questions that I would direct to my
10 other witness, Ms. Sanders.

11 PRESIDING MEMBER BYRON: Mr. Ratliff,
12 before you move on, if it's okay, I mean this line
13 of questions has been very helpful and I've
14 written down five questions, myself. And I'm just
15 going to ask one.

16 MR. RATLIFF: Oh, I would ask you to ask
17 questions whenever you feel the impulse,
18 Commissioner. We --

19 PRESIDING MEMBER BYRON: And I'm trying
20 to set a good example. I've had the impulse many
21 times.

22 (Laughter.)

23 PRESIDING MEMBER BYRON: Mr. Flint, this
24 has been very helpful. Just one question, and
25 that is, you know, you talked earlier about this

1 mitigation ratio consistent with other CEC
2 projects in the past, determined by a biological
3 basis, et cetera, et cetera.

4 My question, going back to those earlier
5 statements, have there been any such projects with
6 this three-to-one ratio on federal or BLM land?

7 MR. FLINT: Yes. There have been mine
8 projects, specifically; and even some pipeline
9 projects, even though typically the linear nature
10 of pipeline projects has a lesser impact than a
11 large project like Ivanpah.

12 Some of them have gone through such
13 critical areas that we have required three-to-one
14 offset and --

15 PRESIDING MEMBER BYRON: Okay, so that's
16 all I wanted to --

17 MR. FLINT: Yes.

18 PRESIDING MEMBER BYRON: -- establish.
19 So you've used that ratio, that same ratio on
20 other BLM land projects?

21 MR. FLINT: That's correct.

22 PRESIDING MEMBER BYRON: All right,
23 thank you. Mr. Ratliff.

24 ASSOCIATE MEMBER BOYD: Well, can I --

25 PRESIDING MEMBER BYRON: I'm sorry,

1 Commissioner Boyd.

2 ASSOCIATE MEMBER BOYD: -- build on
3 that? Is there a consistency with that three-to-
4 one ratio being recommended here, and other energy
5 projects you've dealt with in the past?

6 MR. FLINT: There certainly is. Many --
7 and one of the other things that will affect the
8 ratio is the types and number of species impacted.

9 In this case the project impacts desert
10 tortoise. In other cases in the desert we also
11 have state-listed Mojave ground squirrel. And so
12 the project ratio may be higher if both species
13 are involved.

14 But in this case it's desert tortoise,
15 so this is consistent with other projects that
16 have impacted desert tortoise, energy projects.

17 And even most recently, I believe it was
18 the Victorville 2 project that was more of a
19 conventional power plant, but it had a solar
20 component. But the more traditional smaller
21 footprint projects have been mitigated at this
22 ratio.

23 And some energy projects have even been
24 mitigated at a higher ratio. The LUZ Solar
25 project, which was built at Harper Lake, was

1 actually mitigated at a five-to-one ratio for
2 habitat loss.

3 ASSOCIATE MEMBER BOYD: Thank you.

4 DIRECT EXAMINATION

5 BY MR. RATLIFF:

6 Q Ms. Sanders, could you briefly describe
7 the nature of the habitat in question at the
8 Ivanpah site?

9 MS. SANDERS: Staff described the
10 Ivanpah project area as being relatively
11 undisturbed Mojave Desert habitat with unusual
12 high diversity and density of native cacti and
13 other succulents. And also not too many weeds.
14 We describe as being good quality desert tortoise
15 habitat.

16 It also provides foraging and breeding
17 grounds for other special status species like
18 golden eagle, burrowing owl, a number of others.

19 As Mr. Flint's already described,
20 there's a number of desert washes that flow
21 through the site from the -- they bring storm
22 water from the Clark Mountains down to Ivanpah Dry
23 Lake. And there's hundreds of them, 198 acres
24 have been outlined in the footprint of the Ivanpah
25 project.

1 And those desert washes, even though
2 they're dry most of the year, provide very
3 valuable habitat for desert tortoise and for other
4 wildlife.

5 The Ivanpah project also supports a very
6 diverse flora and quite a few special status plant
7 species. And my co-author on the final staff
8 assessment, Misa Milliron, will tell you more
9 about that later.

10 MR. RATLIFF: What are the project's
11 impacts on the site?

12 MS. SANDERS: Staff concluded the
13 project would have significant direct and indirect
14 impacts to biological resources. The site will be
15 fenced with desert tortoise exclusion fencing.
16 All the desert tortoises on the project site,
17 which we've talked about something like 25, will
18 be translocated. And that's a process that
19 entails considerable risk for the tortoises being
20 moved, and also the ones at the receiving site.

21 Most of the site would not be graded.
22 You've heard about the low-impact approach. But
23 vegetation and clearing and disturbance associated
24 with road construction, heliostat installation,
25 building the facilities would directly affect

1 wildlife by collapsing burrows, removing cover,
2 removing vegetation and it would end up resulting
3 in loss and fragmentation of cover, breeding and
4 foraging habitat for wildlife.

5 One of the most substantial effects of
6 the project on desert tortoise is loss of about
7 4000 acres of occupied habitat. And fragmentation
8 disturbance to the adjacent habitat.

9 And staff considers these impacts to be
10 permanent, with respect to desert tortoise and
11 other wildlife.

12 Staff also concluded that this project,
13 combined with future proposed projects, past
14 projects would also significantly affect a
15 genetically distinct subpopulation of desert
16 tortoise, the northeastern Mojave recovery unit,
17 which occurs in the Ivanpah Valley.

18 MR. RATLIFF: Mr. Flint addressed this
19 to some degree already, but what is the mitigation
20 that staff proposes?

21 MS. SANDERS: Well, I think Mr. Flint
22 described it very well. But as a complementary
23 approach, three-to-one total. One-third of which
24 will be met -- will meet Fish and Game standards
25 and also BLM standards. And that's going to

1 consist mostly of enhancement actions like fencing
2 roads, habitat restoration close to the project
3 area.

4 The other two-thirds will be land
5 acquisitions. And that land will be enhanced and
6 managed in perpetuity to protect desert tortoise.

7 MR. RATLIFF: You heard the questions
8 from the Commissioners regarding whether this was
9 consistent with the Energy Commission and Fish and
10 Game's past practices for mitigation of these
11 kinds of projects. Do you have anything to add to
12 that?

13 MS. SANDERS: Just to confirm we have
14 done it a number of times. Harper Lake, High
15 Desert, Victorville 2, the project I'm working on
16 right now, a solar project, is applying the same
17 kind of compensation ratio. It's quite standard
18 and consistent with incidental take permits that
19 Fish and Game issues all the time.

20 MR. RATLIFF: And do you know, if you
21 know, Ms. Sanders, that even in the 1980s was the
22 Energy Commission, after the adoption of the
23 California Endangered Species Act, requiring the
24 purchase and preservation of ratioed habitat for
25 projects that it licensed?

1 MS. SANDERS: Yes. My recollection, if
2 I remember, that Harper Lake was in 1989. I think
3 that had a four-to-one requirement. I can't
4 recall, but it was certainly at least three-to-
5 one.

6 PRESIDING MEMBER BYRON: Anything as
7 large as the 8146 acres that we're talking about
8 now?

9 MS. SANDERS: No, I don't think so.

10 PRESIDING MEMBER BYRON: Do you recall
11 the largest that we've done at a mitigation ratio
12 of three-to-one or greater?

13 MS. SANDERS: I'm sorry, I don't know
14 that.

15 MR. RATLIFF: Would the applicant's
16 proposed mitigation fulfill the California
17 Endangered Species Act's full mitigation approach
18 in your opinion?

19 MS. SANDERS: Well, no. What the
20 applicant did was to remove all the language that
21 was in the condition that described how the
22 mitigation would take place, the specifics such as
23 the criteria that we would use for the acquisition
24 lands. Providing an acquisition proposal to the
25 agencies for review. All the specifics on

1 funding, which are an essential element of Fish
2 and Game's incidental take permit process. All
3 those things need to be in place.

4 And this replaced it with, I assume, a
5 proffer of money to BLM. And I think that's
6 really inconsistent with the approach that Mr.
7 Flint ha described of a complementary unified
8 approach.

9 The recovery plan, the 2008 draft
10 recovery plan emphasizes that the first thing you
11 need to do to recover desert tortoise is to
12 develop, build, support partnerships for recovery.
13 And this is exactly what we're proposing.

14 Fish and Game, Fish and Wildlife, BLM,
15 Energy Commission have worked together to come up
16 with a plan that complements each other.

17 BLM, there is 4.6, I think, million
18 acres of critical habitat in California for desert
19 tortoise. And that's the habitat that is deemed
20 by the Fish and Wildlife Service as the most
21 important. That includes the features that are
22 most important for recovering the species.

23 Only about 2.5 million of that is owned
24 by BLM, or managed by BLM. So there's a lot of
25 land out there that's not under BLM's control that

1 needs to be managed to enhance habitat for desert
2 tortoise.

3 And Fish and Game can't do it alone, BLM
4 can't do it alone. I think we need to have a
5 unified approach that doesn't rely on just one
6 agency to effect that recovery.

7 MR. RATLIFF: Thank you, Ms. Sanders. I
8 have no more questions, so I think the witnesses
9 are available for cross-examination.

10 ASSOCIATE MEMBER BOYD: Can I ask a
11 really, perhaps dumb question? But, Commissioner
12 Byron and I sit together and individually on
13 multiple of these sites applications.

14 And as I sit here listening today about
15 the survival of the desert tortoise and what-have-
16 you, and the plans and the relocations and the
17 deprivation rates and survival rates and what-
18 have-you, the dumb question is: I can appreciate
19 during construction excluding the desert tortoise
20 from the construction site.

21 But the proposals historically have been
22 exclude them in perpetuity by having fences that
23 preclude the tortoise from ever returning to the
24 site.

25 Now, I realize there are trucks that

1 will wash mirrors, but sometimes I begin to wonder
2 if the tortoise might not have a better chance of
3 survival if it's allowed back on the site after
4 the construction is underway.

5 Do you experts have any opinion on --
6 has anybody ever thought about the survival rate?
7 Particularly on this site where maybe there's less
8 grading than I've seen on other proposed sites.

9 MS. SANDERS: Well, I don't consider
10 myself a desert tortoise expert. There are others
11 here with much more expertise who --

12 ASSOCIATE MEMBER BOYD: I should have
13 asked the first panel and I didn't think of it.

14 MS. SANDERS: Well, they'll be back
15 here, I think. You can ask them later. But I had
16 the exact same thought, to tell you the truth.

17 We know that it's not good to move an
18 animal that lives 50 years on 100 acres and move
19 them. Wouldn't it be better to have them back at
20 their familiar site.

21 And I'm just going to say I don't know
22 the answer to that, and I don't know if anybody
23 else does, either. The Service certainly requires
24 that you avoid any possibility of take. And I
25 think it's their assessment that you're avoiding

1 it by moving them.

2 PRESIDING MEMBER BYRON: Yes, but you
3 made Commissioner Boyd feel much better that it's
4 a legitimate questions.

5 MS. SANDERS: Well, it was my question,
6 also, so I guess that makes it legitimate.

7 ASSOCIATE MEMBER BOYD: I can strike the
8 dumb question from the record, then.

9 (Laughter.)

10 ASSOCIATE MEMBER BOYD: Okay, thank you
11 very much,.

12 HEARING OFFICER KRAMER: Okay. The
13 applicant. Mr. Harris, do you have any questions
14 for the witnesses?

15 MR. HARRIS: I'd really like to go last
16 this time, if I could. I never had a chance to
17 prepare for Mr. Flint's testimony. And there may
18 be a few questions from the other intervenors.
19 And so I think, given the danger of rehabilitation
20 through friendly cross, I think the applicant
21 ought to be allowed to go last. And I can use the
22 time to --

23 HEARING OFFICER KRAMER: Okay, --

24 MR. HARRIS: -- prepare some questions
25 and hopefully shorten up my time, as well.

1 HEARING OFFICER KRAMER: -- well, on
2 that promise, certainly.

3 PRESIDING MEMBER BYRON: We'll hold him
4 to that --

5 ASSOCIATE MEMBER BOYD: I'm impressed
6 with this idea of rehabilitation.

7 HEARING OFFICER KRAMER: Mr. Basofin.

8 MR. BASOFIN: Thank you.

9 CROSS-EXAMINATION

10 BY MR. BASOFIN:

11 Q Good afternoon, Mr. Flint. I have a few
12 questions for you. First of all, thank you for
13 being here today and offering your testimony.

14 First, you testified today that pursuant
15 to the Governor's executive order that you were
16 directed, the Department of Fish and Game is
17 directed to fully integrate your process with the
18 CEC's process, is that right?

19 MR. FLINT: We were directed to take all
20 steps necessary to enhance and expedite the
21 permitting of renewable energy facilities to meet
22 greenhouse gas reduction goals and other
23 environmentally beneficial goals of the state. So
24 that was the direction.

25 One way to do that was to work together,

1 again, with the folks, with the different
2 jurisdictions to best incorporate our processes
3 together.

4 And so the department has done that with
5 CEC and CEC has done that with BLM. And we are
6 also working on the mitigation end to incorporate
7 processes with the Fish and Wildlife Service.

8 So, --

9 MR. BASOFIN: Okay.

10 MR. FLINT: -- through the Renewable
11 Energy Action Team, so it's no specific actions,
12 but those actions collectively meet the intent of
13 that order.

14 MR. BASOFIN: Okay. And for this
15 specific project can you talk a little bit about
16 the specific ways the Department of Fish and Game
17 has engaged with Energy Commission Staff in
18 assessing the project since the AFC was filed in
19 2007?

20 MR. FLINT: Yes. We -- our field staff
21 have made multiple visits to the project site and
22 reviewed multiple iterations of documents from the
23 applicant and from CEC. And participated in
24 developing, as we would in our CESA permitting
25 efforts, if we were issuing our own permit, have

1 participated with the staff of CEC to -- and the
2 applicant, analyzing their information -- to
3 develop those conditions and measures that we
4 would have put forth in a draft CESA permit, into
5 both the -- to the extent possible on the
6 timelines we're going here -- both into the
7 preliminary staff assessment and now the final
8 staff assessment.

9 MR. BASOFIN: And did DFG Staff attend
10 staff workshops that were held by Energy
11 Commission Staff?

12 MR. FLINT: I don't have direct
13 knowledge of, or an attendance log of those. I
14 know we attended some and possibly may not have
15 attended others.

16 MR. BASOFIN: And did DFG Staff attend
17 the Committee conferences that were held prior to
18 the initiation of this final evidentiary hearing?

19 MR. FLINT: Myself, personally, I did
20 not. I don't know if staff did or not. I believe
21 they did not.

22 MR. BASOFIN: Okay. Mr. Flint, did the
23 applicant, BrightSource Energy, submit an
24 incidental take application to the Department of
25 Fish and Game for this project pursuant to Fish

1 and Game Code section 2081?

2 MR. FLINT: I believe initially they
3 did. But that was never forwarded to the
4 headquarters. It was in -- it would have been in
5 the region. I believe they did initially because
6 back when this project proceeded to begin its
7 permitting process, permitting through the AFC
8 process, we had not established or fully
9 integrated our processes.

10 We were working out the details of doing
11 that and considering doing that, but we hadn't.
12 So at that time, without that process, integrated
13 process worked out, to not slow anything down
14 folks were proceeding -- and this is not the only
15 project that has done this -- but folks proceeded
16 along the existing, you know, the existing routes
17 of pursuing permits. And I believe they did
18 submit an application early on to the department.

19 MR. BASOFIN: Do you have a copy of that
20 application?

21 MR. FLINT: I do not --

22 MR. BASOFIN: Okay, I'm --

23 MR. FLINT: -- have it with me.

24 MR. BASOFIN: -- I'm going to provide
25 you with a copy.

1 MR. FLINT: Okay.

2 MR. BASOFIN: This is applicant exhibit
3 23. Mr. Flint, please take a moment to review,
4 particularly the first page of that application.

5 MR. FLINT: The cover letter?

6 MR. BASOFIN: The cover letter, yes.

7 MR. FLINT: Okay.

8 (Pause.)

9 MR. FLINT: Okay.

10 MR. BASOFIN: And who is that
11 application for an incidental take permit
12 addressed to?

13 MR. FLINT: At the top of the cover
14 letter it's addressed to Curt Taucher, care/of
15 Katrina Banda. Curt Taucher is our Regional
16 Manager for the Inland Desert Region, Fish and
17 Game Region Six. And Katrina is his secretary.

18 MR. BASOFIN: Okay, and what's the date
19 on that application for an incidental take permit?

20 MR. FLINT: May 22, 2009.

21 MR. BASOFIN: Thank you. And is it your
22 understanding that the Department of Fish and Game
23 did not process that application for an incidental
24 take permit?

25 MR. FLINT: No, we did not. And it's

1 also typically, the way that the application
2 process typically works, and again I don't have
3 that or haven't seen them. We might have several
4 draft iterations of a permit. We're always
5 available to work with the applicants when they're
6 developing their projects. And to talk as early
7 and often as possible about lessening impacts and
8 mitigation options.

9 So that's the typical process. I can't
10 speak to what actually happened on this project.
11 There could have been a couple iterations of a
12 draft that went back and forth at the regional
13 level, also.

14 And typically when we are in our own
15 permitting mode, we have timeline requirements in
16 regulation that are not wholly binding on the
17 department, but we typically ask applicants to
18 work with us before they submit a final
19 application. So that's the typical process.

20 MR. BASOFIN: Okay, thank you. And so I
21 understand that you're not familiar with all of
22 the intricacies of this application, but can you
23 give me sort of a timeline of when Fish and Game
24 decided not to process this application, and
25 decided that they would make recommendations as to

1 the nature of the impacts on listed species and
2 the necessary mitigation?

3 MR. FLINT: I believe we have internal
4 discussions as early as when we were working on
5 the project with CEC Staff and the applicant in
6 late 2008. And discussions with our field staff
7 on how -- what new procedures would be under a
8 joint process were ongoing at that time. But,
9 again, no final decisions on that.

10 But the applicant had been actively
11 working with the applicant and the CEC definitely
12 prior to the submittal date on this cover letter
13 for this application that you handed me.

14 MR. BASOFIN: Okay, thank you.

15 HEARING OFFICER KRAMER: Before you go
16 on, you said that was part of exhibit 23?

17 MR. BASOFIN: It is, it's applicant
18 exhibit 23.

19 HEARING OFFICER KRAMER: I can't find
20 anything like that in my copy of -- at least --
21 well, perhaps -- I'm looking at my excerpts that
22 are categorized by topic. But I think Ms. Chew is
23 looking at the full exhibit, and we haven't been
24 able to find it in there.

25 MR. BASOFIN: I believe it was within a

1 data request --

2 HEARING OFFICER KRAMER: Right, this was
3 a data response --

4 MR. BASOFIN: -- or a data response. I
5 believe exhibit 23 is a data response that
6 contains --

7 MR. HARRIS: We're unable to locate it,
8 either, on that number.

9 HEARING OFFICER KRAMER: Who is it
10 addressed to?

11 MR. FLINT: What I was handed was
12 addressed to Curt Taucher within the California
13 Department of Fish and Game Region 6. It's on
14 BrightSource letterhead.

15 HEARING OFFICER KRAMER: Curt spelled
16 with a K?

17 MR. FLINT: C-u-r-t, Curt Taucher,
18 T-a-u-c-h-e-r.

19 HEARING OFFICER KRAMER: Well, is this
20 going to be a part of your argument at some point,
21 Mr. Basofin?

22 MR. BASOFIN: It very well could be.

23 HEARING OFFICER KRAMER: So you may be
24 citing to this. Okay, let's keep moving, but I
25 think we need to figure out where this is

1 ultimately for the record so people can cite to it
2 and when they look at the transcript they'll be
3 able to figure out what you were talking about as
4 far as the document goes. But go on with your
5 questions --

6 MR. BASOFIN: Okay.

7 HEARING OFFICER KRAMER: -- and we'll
8 discuss this during the break.

9 MR. BASOFIN: Now, Mr. Flint, in this
10 integrated process that you've been discussing
11 wherein the Department of Fish and Game Staff
12 works with the California Energy Commission Staff
13 to develop appropriate mitigation for renewable
14 energy projects, is it the role of the Department
15 of Fish and Game to submit its assessment and
16 recommendations to the Energy Commission?

17 MR. FLINT: It is.

18 MR. BASOFIN: Okay. And is that role
19 memorialized in a memorandum of understanding or
20 other agreement?

21 MR. FLINT: The department and the CEC
22 have been working on an MOU. It is not finalized.

23 MR. BASOFIN: Thank you. Now, Mr.
24 Flint, in the past has it been the Department of
25 Fish and Game's practice to issue incidental take

1 permits for Energy Commission projects?

2 MR. FLINT: The department has issued
3 incidental take permits in the past for energy
4 projects. And when there was, you know, when
5 there was -- well, we have done that as a past
6 practice.

7 But I have seen a number of those, and
8 actually reviewed a number of those and sent them
9 forward.

10 During that process, even with that
11 practice, it's pretty much essentially happening
12 the way it is now. Fish and Game Staff work
13 closely with CEC Staff. The recommendations would
14 get into the bio conditions in the final staff
15 assessment.

16 And like you see here, I mean this --
17 I'm not saying that we've reviewed this, or we
18 would use what is here in this application. We
19 would have to go through that.

20 But like you see here, a lot of times in
21 the department's permits the recommendations from
22 CEC Staff, that were jointly developed, were
23 simply appended or put into the department permit.

24 So you really could not tell the
25 difference between the CEC document and department

1 document, except for the findings that the
2 department made and the signature of the director.

3 MR. BASOFIN: Okay, but would you say
4 that most of the times when DFG has been involved
5 in the permitting process for an energy project,
6 that the DFG has directly issued an incidental
7 take permit?

8 MR. FLINT: Up till the renewable
9 projects, and there are several that are going
10 through permitting right now with CEC that we are
11 not intending to issue our own permits on.

12 MR. BASOFIN: Okay, so would you say
13 that you have experience in directly issuing
14 incidental take permits for energy projects?

15 MR. FLINT: Yes.

16 MR. BASOFIN: Okay. Mr. Flint, turning
17 to the Department of Fish and Game's October 27,
18 2009 letter to the CEC regarding the Ivanpah
19 project, do you have a copy of that letter?

20 MR. FLINT: I believe I do.

21 MR. BASOFIN: I can provide you one.

22 MR. FLINT: From Kevin Hunting?

23 MR. BASOFIN: That's correct.

24 MR. FLINT: To John Kessler?

25 MR. BASOFIN: That's correct.

1 MR. FLINT: October 27th?

2 MR. BASOFIN: Yes.

3 MR. FLINT: I do have that.

4 MR. BASOFIN: Okay.

5 HEARING OFFICER KRAMER: Is this an
6 exhibit?

7 MR. BASOFIN: This is a Defenders of
8 Wildlife exhibit 709.

9 HEARING OFFICER KRAMER: Thank you.

10 MR. BASOFIN: Mr. Flint, are you
11 familiar with this letter?

12 MR. FLINT: Yes, I am.

13 MR. BASOFIN: And, Mr. Flint, can you
14 describe the purpose for submitting this letter to
15 the Energy Commission?

16 MR. FLINT: Yes, this letter reflects
17 the department's comments on the preliminary staff
18 assessment, as reviewed by the department.

19 MR. BASOFIN: And did the Department of
20 Fish and Game submit other comments or
21 recommendations to the Energy Commission
22 throughout this process?

23 MR. FLINT: We have had informal
24 discussions and some data sharing and
25 recommendation sharing with the staff, yes.

1 MR. BASOFIN: Thank you. Mr. Flint,
2 turning to page 3 of the October 27th letter, can
3 you read the first two sentences under
4 alternatives out loud, please?

5 MR. FLINT: "CEQA and NEPA" -- oh, I'm
6 sorry -- "CEQA and OSAA comments alternatives.
7 CEQA and NEPA require a meaningful range of
8 alternatives to be analyzed in the FSA/SEIS. The
9 PSA is lacking in specific information to support
10 many of the statements regarding the limited
11 alternatives evaluated for the project."

12 MR. BASOFIN: And, Mr. Flint, were these
13 comments made pursuant to the public comment
14 period for the preliminary staff assessment?

15 MR. FLINT: My understanding is yes,
16 they were. Although I don't remember all the
17 deadlines.

18 MR. BASOFIN: Okay, and have you
19 reviewed the final staff assessment for this
20 project?

21 MR. FLINT: Yes, I have.

22 MR. BASOFIN: Okay, and in your opinion
23 did the final staff assessment reflect your
24 concerns about specific information for
25 alternatives analysis that you put in your October

1 2007 letter?

2 MR. FLINT: I believe that information
3 was added to the final staff assessment in line
4 with our comments. And I also -- also a lot of
5 these, a lot of the focus of the department's
6 comments here were primarily to address desert
7 tortoise impacts, our primary CESA responsibility.

8 So with the addition of some specifics
9 to the final staff assessment on CESA mitigation,
10 I would say yes, that information was provided
11 that goes far in completing or adding to the
12 document based on our comments.

13 MR. BASOFIN: And can you reference
14 specific information on alternatives that you
15 think was added pursuant to your recommendations?

16 MR. FLINT: I cannot right immediately
17 do that for alternatives, no.

18 MR. BASOFIN: Okay. Turning to page 4
19 of the October 27, 2009 letter, can you read the
20 second full paragraph on page 4? It's only one
21 sentence.

22 MR. FLINT: So for sensitive plant
23 species?

24 MR. BASOFIN: Correct.

25 MR. FLINT: "For sensitive plant species

1 seeds could be collected for redistribution on
2 compensation lands or within the general area.
3 Specific types of compensatory mitigation must be
4 identified in the FSA/SEIS."

5 MR. BASOFIN: And in your opinion, has
6 the final staff assessment identified specific
7 types of compensatory mitigation for plant
8 species?

9 MR. FLINT: Again, I have reviewed the
10 final FSA, but I can't speak immediately to the
11 specifics for this particular -- for the sensitive
12 plant species.

13 We commented -- worked with and advised
14 CEC Staff as to the sensitivity of plants and how
15 they would be addressed -- and discussed how they
16 would be addressed if we were responding to them
17 under the California -- under CEQA, which would be
18 our primary way to respond for this project on
19 these plants, because they're not listed. And --

20 MR. BASOFIN: Okay, let's actually talk
21 about that a little bit. So, would you say the
22 emphasis of this letter is on listed species or
23 nonlisted species?

24 MR. FLINT: The emphasis of our
25 letter --

1 MR. BASOFIN: And take as much time as
2 you need to review the letter, and answering.

3 MR. FLINT: And we're still looking at
4 our letter, right?

5 MR. BASOFIN: Correct.

6 MR. FLINT: Yeah. I think the primary
7 emphasis of this letter is, while though it
8 touches a wide range of subjects, it primarily
9 speaks to indirect effects that could impact
10 tortoise, such as raven, predators, road risk and
11 other traffic.

12 It responds also specifically to issues
13 related to 1600 and impacts to bed, bank and
14 channel that would normally -- that are under the
15 department's jurisdiction.

16 And also specifics -- it does give a few
17 specifics for each of the bio categories, but
18 primarily focuses on tortoise, desert tortoise, so
19 endangered species, yes.

20 MR. BASOFIN: Okay. And for the
21 portions of this letter that contain
22 recommendations for nonlisted species, can you
23 explain DFG's role in making those
24 recommendations?

25 MR. RATLIFF: Point of clarification.

1 Mr. Basofin, when you say nonlisted species, do
2 you mean --

3 MR. BASOFIN: I mean special status
4 wildlife, special status plants --

5 MR. RATLIFF: Special --
6 (Parties speaking simultaneously.)

7 MR. BASOFIN: -- special status.

8 MR. HARRIS: Well, now I need
9 clarification. Special status, are you meaning
10 special status meaning everything that's not
11 listed in the Endangered Species Act as threatened
12 or endangered?

13 MR. BASOFIN: Well, there are several
14 sections of this letter that refer to special
15 status plants, special status mammals and special
16 status bird species. And that's what I mean,
17 what's referred to in the letter under those
18 designations.

19 And what I'm wondering is if the
20 Department of Fish and Game's role in assessing
21 impacts to those species is not mandated by CESA,
22 is it mandated by another regulatory mechanism
23 like CEQA.

24 MR. FLINT: Well, we -- again, we made
25 these comments with respect to needing to analyze

1 all of the potential impacts from the project
2 under the Commission's process.

3 And secondly, to our trustee
4 responsibility for all fish and wildlife of the
5 state, whether they be listed or not.

6 MR. BASOFIN: Okay, let me ask you this.
7 Does the department have a role, as a responsible
8 agency, under CEQA?

9 MR. FLINT: Yes, we do.

10 MR. BASOFIN: Okay. So would you say
11 that the primary directive for Fish and Game Staff
12 in relation to special status species is to insure
13 impacts are mitigated to less than significant
14 levels under CEQA?

15 MR. FLINT: Yes, one of our
16 responsibilities is to insure those impacts are
17 analyzed, and when we can, make recommendations to
18 minimize impacts --

19 MR. BASOFIN: Okay, thank you.

20 MR. FLINT: -- as trustee or responsible
21 agency, depending on the particular permitting
22 process.

23 MR. BASOFIN: Thank you. Now, referring
24 to, again to page 4 of the October 27th letter,
25 the last paragraph under biological resources,

1 table 4, can you read that paragraph?

2 MR. FLINT: I'm sorry, could you repeat
3 the location one more time?

4 MR. BASOFIN: On page 4 at the top, the
5 last paragraph under the heading biological
6 resources, table 4.

7 MR. FLINT: Okay. "Banded Gila Monster.
8 Stating compensatory mitigation for desert
9 tortoise may also offset impacts to gila monsters
10 isn't adequate. There must be a plan in place to
11 address impacts to gila monsters should the desert
12 tortoise mitigation be insufficient to reduce gila
13 monster impacts to less than significant levels."

14 MR. BASOFIN: And in your opinion, Mr.
15 Flint, has the final staff assessment reflected
16 your recommendations that there be a plan in place
17 to address, a separate plan in place to address
18 impacts to gila monsters, should desert tortoise
19 mitigation be insufficient?

20 MR. FLINT: I'm not immediately
21 recalling that section. And I did not, you know,
22 this letter was written, this letter was a
23 combination of -- had a combination of authors.
24 So I didn't make -- can't really speak to each
25 specific comment here. But --

1 MR. BASOFIN: Okay. I'm going to hand
2 you a page from the final staff assessment. This
3 is the applicant's main evidentiary exhibit. This
4 is page 6.2-72.

5 HEARING OFFICER KRAMER: You said
6 applicant and then you said final staff
7 assessment. Which are --

8 MR. BASOFIN: Sorry, staff.

9 HEARING OFFICER KRAMER: So this is the
10 staff assessment?

11 MR. BASOFIN: Yes, this is page 6.2-72
12 of the final staff assessment.

13 Mr. Flint, do you see on that page in
14 the chart where it says banded gila monster?

15 MR. FLINT: Yes, I do.

16 MR. BASOFIN: Can you read directly to
17 the right of that?

18 MR. FLINT: It says: Impact presence in
19 the project area unconfirmed. If present,
20 potential for direct impacts and habitat loss.
21 Mitigation: Compensatory mitigation for desert
22 tortoise may also offset impacts to gila monsters.
23 Bio-17. Implement best management practices to
24 avoid direct impacts. Bio-11."

25 MR. BASOFIN: Okay, having read that, is

1 it your opinion that the final staff assessment
2 took into account your recommendation for banded
3 gila monsters?

4 MR. FLINT: Given that -- I'm not
5 personally aware that the banded gila monsters
6 were actually seen to be present on the site. So,
7 given that assumption, this would be a typical
8 kind of recommendation that we would see for this
9 type of impact for an unlisted species.

10 So although it doesn't call for a
11 specific plan, it is addressed. And if like with
12 other species that either are not known at the
13 time of construction, or show up at the site
14 during construction, once those are observed by
15 biological monitors, for instance, then we often
16 will go back and consult on what to do about those
17 species.

18 So this is typical of the kind of
19 conditions we see. And, again, our letter, even
20 though it's worded strongly, there must be, there
21 must be, it's recommendation to the CEC.

22 MR. BASOFIN: Okay, but based on your
23 recommendation that compensatory mitigation for
24 desert tortoise, that the statement that
25 compensatory mitigation for desert tortoise may

1 also offset impacts to gila monsters is
2 inadequate, do you think that that condition for
3 mitigation was taken in due account of your
4 recommendations?

5 MR. FLINT: Well, again, there's two
6 things. If there were actually gila monster
7 present on the site we would like to see steps in
8 place, a plan to reduce or minimize those impacts.
9 So that's one given fact and one given situation.

10 And the point our recommendation was
11 trying to make is just saying that offset for
12 desert tortoise may also offset impacts to gila
13 monsters if they may occur would be inadequate.

14 If we know they're there and they're
15 going to occur, we plan to reduce the impact, and
16 we would need to make certain that replacement
17 habitat for tortoise also included the appropriate
18 habitat for gila monsters.

19 So that's the intent of our
20 recommendations.

21 MR. BASOFIN: Okay, thank you. Turning
22 again to the October 27, 2009 letter, can you read
23 the statement underneath the heading, migratory/
24 special status bird species?

25 MR. FLINT: "The compensatory mitigation

1 plan can offset the significant loss of habitat
2 for these species. This section should be updated
3 to either show that the compensatory mitigation
4 does offset the loss, or other measures may need
5 to be developed that will reduce impacts to less
6 than significant levels."

7 MR. BASOFIN: And, again, I'm going to
8 hand you page 6.2-45 of the final staff
9 assessment.

10 (Pause.)

11 MR. BASOFIN: Mr. Flint, can you read
12 the last sentence of the third full paragraph on
13 that page?

14 MR. FLINT: I'm sorry, one more time?

15 MR. BASOFIN: The last sentence of the
16 third full paragraph.

17 MR. FLINT: Third --

18 MR. BASOFIN: Full paragraph.

19 MR. FLINT: Okay, one, two, three.

20 "Staff's proposed condition of certification bio-
21 17, the compensatory mitigation plan could offset
22 the loss of habitat for these species and reduce
23 the impacts to less than significant."

24 MR. BASOFIN: And on that page, which
25 species is that referring to?

1 MR. FLINT: At the top of the section,
2 migratory special status bird species. And there
3 are some specific species mentioned in the
4 paragraph, first paragraph there.

5 MR. BASOFIN: Okay, so based on that
6 statement in the final staff assessment, is it
7 your opinion that the final staff assessment
8 reflects the Department of Fish and Game's
9 recommendations for mitigation for special status
10 bird species?

11 MR. FLINT: It doesn't look like the
12 department's recommendations were incorporated
13 there the way we wrote them in the letter.

14 MR. BASOFIN: Okay. Thank you. Mr.
15 Flint, I just have one final question regarding
16 the October 27th letter.

17 On page 5 of that letter, could you read
18 the first sentence under the heading, cumulative
19 impacts biological resources table 5?

20 MR. FLINT: The first sentence says,
21 "The last sentence of this section states the
22 significant cumulative impact may be reduced to
23 less than significant levels with appropriate
24 levels of compensatory mitigation."

25 MR. BASOFIN: And go on, please.

1 MR. FLINT: "The department believes
2 that it is premature to determine if the levels
3 can be reduced to a level of less than significant
4 due to the limited information on the compensatory
5 mitigation being implemented for this project.
6 Without more detailed information, the department
7 does not agree that this project will reduce the
8 impacts to a level of less than significant as it
9 pertains to biological issues."

10 MR. BASOFIN: And is it your opinion
11 that the -- actually, I believe you have page 6.2-
12 71 there? Of the final staff assessment.

13 MR. FLINT: Yes.

14 MR. BASOFIN: Okay. In the last full
15 paragraph on page 6.2-71 can you read the second-
16 to-last sentence? So, second-to-last sentence,
17 the last full paragraph.

18 MR. FLINT: I'm sorry, the last --
19 second or last --

20 MR. BASOFIN: Right, second-to-last
21 sentence, last full paragraph.

22 MR. FLINT: Where it starts with "Staff
23 considers"?

24 MR. BASOFIN: Yes.

25 MR. FLINT: "Staff considers the 4073-

1 acre I-SEGS project to be a substantial
2 contributor to cumulative loss of Ivanpah Valley's
3 native Mojave Desert plant and wildlife
4 communities, including the threat to desert
5 tortoise and other special status species. With
6 the exception of the special status plant species,
7 the significant cumulative impact may be reduced
8 to less than significant levels with appropriate
9 levels of compensatory mitigation as discussed in
10 the staff's proposed condition of certification."

11 MR. BASOFIN: And do you believe, after
12 having read that portion of the staff assessment,
13 that your concerns that it's premature to
14 determine if levels of cumulative impacts can be
15 reduced to less than significant have been calmed?

16 MR. FLINT: Although both our letters
17 speak -- our letter and this section speak to
18 other species besides desert tortoise, I know that
19 putting this letter together, even under the
20 cumulative impact section, the department was
21 trying to emphasize the fact that there wasn't a
22 lot of detail around the desert tortoise -- in the
23 preliminary staff assessment there wasn't a lot of
24 detail around the desert tortoise mitigation
25 proposal. And I think that was the main point of

1 our comment here.

2 And, again, I'll just say two things.
3 We do feel that the additional information added
4 in the FSA does insure that for tortoise -- and,
5 again, it's not our responsibility or even our --
6 it's not our responsibility and it's not our -- we
7 don't really have the ability to dictate what is
8 significant and what is not significant, pursuant
9 to these impacts, that is up to the judgment of
10 the CEC in this case, as the lead permitting
11 agency.

12 So while we make recommendations, and we
13 do this often in the full CEQA process, not all of
14 them are taken. That apparently is the case here,
15 at least for the banded gila monster and --

16 MR. BASOFIN: Okay, is it not part of
17 the role of a responsible agency, under CEQA, to
18 determine a significant threshold and determine if
19 impacts are significant?

20 And in this case, would it not be the
21 role of DFG to determine if impacts to special
22 status species were significant?

23 MR. RATLIFF: Could I just interject,
24 Mr. Basofin. I hate to contradict my witness, and
25 perhaps there's a split of opinion here, but the

1 Energy Commission doesn't consider the Department
2 of Fish and Game to be a responsible agency if its
3 permit is being issued through the Energy
4 Commission process.

5 It's a trustee agency that advises and
6 collaborates with the Energy Commission on that
7 project. There is a difference in terms of the
8 roles there.

9 And I just wanted to clarify that,
10 because I think the confusion may be leading to
11 even further confusion.

12 MR. BASOFIN: Okay.

13 MR. RATLIFF: And I say that because the
14 definition of a responsible agency is an agency
15 that issues its own permit for the same project.

16 MR. FLINT: Right. Right, and I should
17 have asked for clarification. And I'm going back
18 and forth between typical process and our current
19 process. My apologies.

20 MR. BASOFIN: Okay, I will withdraw that
21 last question. Okay, moving on, Mr. Flint, the
22 Department of Fish and Game has recommended a
23 compensatory mitigation ratio of two-to-one for
24 this project, is that right?

25 MR. FLINT: That's not correctly stated.

1 MR. BASOFIN: Okay, --

2 MR. FLINT: For desert tortoise, I'm
3 assuming you mean?

4 MR. BASOFIN: Yes.

5 MR. FLINT: Our mitigation ratio for
6 desert tortoise is three-to-one. And the
7 recommendation includes two-thirds of that
8 requirement to be fulfilled through land
9 acquisition; the other third to be achieved
10 through management actions on already protected
11 public lands.

12 So, --

13 MR. BASOFIN: Okay, and that mitigation
14 ratio is what's been described as nested, is that
15 correct?

16 MR. FLINT: That's correct.

17 MR. BASOFIN: Can you describe what's
18 meant by nesting a little bit?

19 MR. FLINT: Well, so I can give you an
20 example. When we first talked about how the
21 requirements would be applied to this project from
22 both BLM and -- for BLM's obligation under its
23 authority, and under the department's obligation
24 under our authority for CESA, people immediately
25 thought that that meant it would be an automatic

1 four-to-one ratio. Three-to-one acquisition Fish
2 and Game, and a one-to-one requirement by BLM.

3 And, again, some projects have been
4 impacted as high as -- been mitigated as high as
5 five-to-one that impact tortoise. Again, it's
6 some site-specifics information that comes to bear
7 on the quality of habitat and all those issues
8 that come to bear on how that ratio gets laid out.

9 So, in clarifying, so does that mean a
10 four-to-one ratio? Your three-to-one plus BLM's
11 one-to-one, or whatever. We, you know, decided to
12 explain how the things fit together and actually
13 nested.

14 We often -- if you extend it further,
15 mitigation land purchase is often nested in the
16 fact that it may provide the same mitigation,
17 habitat acquired may provide benefits for multiple
18 species.

19 And so if someone's required to purchase
20 100 acres for a burrowing owl and desert tortoise,
21 they don't need 100 acres for each. If the
22 habitat is appropriate for both species, then the
23 100 acres can fulfill both.

24 It depends, again, on the biology of the
25 species and the interactions between those

1 species. So, --

2 MR. BASOFIN: And can you -- thank you
3 for that -- can you explain a little bit about
4 what methodology is used to insure that the
5 habitat that's proposed for nesting is suitable
6 for all of the species that are proposed to be --
7 for mitigation?

8 MR. FLINT: We -- the department works
9 closely with implementation of permits with the
10 applicant to assist in identifying appropriate
11 mitigation lands that have the species, and that
12 they provide the appropriate habitat for the
13 species that are being mitigated with those lands.

14 So we do that routinely on permits on
15 the back end during implementation. And I think
16 that's the question you asked, right? Sorry, --

17 MR. BASOFIN: I think so.

18 MR. FLINT: Okay.

19 MR. BASOFIN: What would happen in the
20 scenario where some land was proposed for desert
21 tortoise mitigation and was also proposed to be
22 nested with let's say special status bird species
23 mitigation, and the surveys for desert tortoise
24 found it was suitable habitat? It was of the same
25 quality or better quality as the impacted site,

1 but surveys also found that it was not of the same
2 quality or better quality for special status bird
3 species. What would happen then?

4 MR. FLINT: We would either keep looking
5 for habitat that could fulfill both of higher
6 quality. Or it is possible that the mitigation,
7 the amount of land needing to be acquired, it may
8 be split at that point, if necessary, based on the
9 biology and the habitats at the proposed sites.

10 So we'd continue to find other high-
11 quality habitat that had both, but possibly there
12 could be some additional separate mitigation
13 required.

14 MR. BASOFIN: Okay, so you would, in a
15 sense, abandon the nesting process then and do
16 separate mitigation?

17 MR. FLINT: Not totally, and not
18 totally, rarely do we run into situations where
19 it's totally mutually exclusive. We can also look
20 at the ability to restore that site to bring back
21 some of that capability. And that also could be
22 factored in as a part of a mitigation equation or
23 solution.

24 MR. BASOFIN: So you would institute a
25 management action to insure that that land was

1 appropriate for say special status bird species?

2 MR. FLINT: It's possible.

3 MR. BASOFIN: Okay, thank you. Is it a
4 permanent Fish and Game's practice, in its
5 mitigation measures, to identify specific parcels
6 of land for acquisition to satisfy compensatory
7 mitigation requirements?

8 MR. FLINT: Typically we do not specify
9 specific parcels. Again, I think I alluded to
10 this earlier, under our standard operating
11 procedure and the way we've consistently handled
12 CESA permitting, it's been the applicant's
13 obligation to identify and do the work on the back
14 end to bring those lands under their control and
15 deed control over to the state, or an acceptable
16 third party to the department.

17 So the state does not take on the
18 responsibility of insuring that the applicant's
19 mitigation is satisfied. So, --

20 MR. BASOFIN: Okay. In this case the
21 applicant has stated in its testimony that it's
22 relied on the Department of Fish and Game to
23 identify appropriate parcels of land for
24 mitigation.

25 I'm wondering whose ball's in which

1 court.

2 MR. HARRIS: Clarification. Are you
3 talking about the staff's position on having --

4 MR. BASOFIN: No, I'm talking about the
5 applicant's position.

6 MR. HARRIS: I think you're not. If
7 you're talking about acquiring land?

8 MR. BASOFIN: Yeah, I'm talking about
9 identifying parcels of land.

10 MR. HARRIS: Yeah. No, --

11 MR. BASOFIN: Do you have an objection?

12 MR. HARRIS: My objection is that you've
13 characterized that as our testimony and that's not
14 our testimony. So, I object.

15 MR. BASOFIN: Mr. De Young, I believe,
16 testified earlier that it was not the applicant's
17 responsibility to identify parcels of land, but
18 was the Department of Fish and Game's
19 responsibility.

20 MR. HARRIS: I do not believe he
21 testified as such. Acquisition is one of the
22 primary problems we have with this entire
23 approach. So we would not be fighting about who
24 has acquisition responsibility, we'd be fighting
25 about whether --

1 MR. BASOFIN: No, no, --

2 MR. HARRIS: -- acquisition is actually
3 required as a matter of law.

4 MR. BASOFIN: -- it's not a question of
5 who has acquisition responsibility. It's a
6 question of segregating the responsibility for
7 mitigation in terms of funding and finance. It's
8 a question of who identifies the parcels of land.
9 And that's the question I've asked Mr. Flint.

10 MR. HARRIS: Maybe re-ask the question
11 without reference to the applicant. I think --

12 MR. BASOFIN: Mr. Flint, has the
13 applicant indicated to you, to the Department of
14 Fish and Game its willingness to identify specific
15 parcels of land that would be appropriate for
16 compensatory mitigation?

17 MR. FLINT: We have met and talked
18 about, expressed our interest in working together
19 with the applicant going forward on identifying
20 those lands as soon as possible, and as early as
21 possible, in the process.

22 But, again, that doesn't need to happen
23 for the project to get its certification. And
24 would not -- well, that's up to the Commission,
25 but in our process it would not need to happen

1 that way to get their permit. They would just
2 need to secure their obligations, and then we
3 would work with them on the back end to identify
4 appropriate lands.

5 And what I mean, that we will recommend
6 areas, regional areas or certain areas to
7 applicants if they ask for the department's help
8 that are appropriate, we know are appropriate for
9 the species, that have the species on them.

10 And so we will do that and point
11 applicants to specific places to pursue. But we
12 typically do not talk to -- will not approach
13 landowners and look for willing sellers on behalf
14 of the applicant. That's their responsibility.

15 MR. BASOFIN: In your communications
16 with California Energy Commission Staff for this
17 project, is it your understanding that the Energy
18 Commission will also assume that role of requiring
19 the applicant to identify specific parcels of land
20 appropriate for mitigation?

21 MR. FLINT: In past practice, and in
22 cases and for generation projects that we worked
23 on together, that has been the Commission's past
24 practice, also. And they will work with the
25 department also when applicants bring back,

1 identifying lands, as to advising the applicant as
2 whether that would meet their mitigation
3 obligation or not.

4 So they still, in implementation of the
5 certification or the permit, we still work
6 together on that end, too, to insure
7 implementation of the mitigation measures.

8 MR. BASOFIN: Thank you. And
9 approximately how much time is usually allowed
10 after permitting for all necessary compensatory
11 mitigation lands to be identified?

12 MR. FLINT: It has varied a little bit.
13 In the past for department permitting it's been 12
14 months. We found that especially for some species
15 in some situations to be difficult to achieve.

16 Currently in the department's permitting
17 it's approximately 18 months.

18 MR. BASOFIN: Would you say that for
19 this project the mitigation requirements would be
20 difficult to achieve in terms of finding
21 individual sites and land parcels?

22 MR. FLINT: Given a portion of the
23 mitigation would include management and that makes
24 land acquisition component, a two-to-one
25 component, or approximately 8100 acres or

1 somewhere around there, just as an approximate.
2 The project size has changed so my calculation may
3 be not right.

4 But based on input from our field staff,
5 who are much closer to knowing what is and what
6 isn't available, there would be plenty of habitat
7 available throughout the desert, throughout the
8 Mojave Desert to fulfill that requirement.

9 MR. BASOFIN: Okay, just to make sure
10 I'm clear on that answer, as a follow-up, your
11 field staff has indicated that there would be
12 approximately 8100 acres of better, of equal
13 quality or better quality habitat for desert
14 tortoises and the special status birds, mammals
15 and plants that are located onsite?

16 MR. FLINT: Yes. We've explored, again,
17 the field staff have explored a little bit. They
18 have a feeling of what's available. I have to say
19 that the department is not, for purposes of CESA,
20 I think I alluded to it before, but based on our
21 responsibility to protect the species throughout
22 its range, we're not necessarily -- we're not
23 limited in any way from only mitigating in a
24 certain area recovery unit.

25 But the state uses a hierarchy of in-

1 kind, out-of-kind, and different types of
2 mitigations to fulfill the requirements. So the
3 department staff is looking broadly throughout the
4 desert, and has identified in excess of 12,000 --
5 at this time at least 12,000 acres that would be
6 available.

7 And for the most part, it hasn't been
8 looked at closely, but for the most part it would
9 satisfy needs for a majority of these species,
10 maybe not every single one.

11 MR. BASOFIN: Okay.

12 MR. FLINT: Just don't know that at this
13 time.

14 MR. BASOFIN: Okay. And --

15 HEARING OFFICER KRAMER: Mr. Basofin,
16 it's sounding to us as if you've pretty much
17 exhausted this topic, --

18 MR. BASOFIN: Okay, I --

19 HEARING OFFICER KRAMER: -- so can you
20 wrap it up?

21 MR. BASOFIN: -- have one final
22 question.

23 HEARING OFFICER KRAMER: Okay.

24 MR. BASOFIN: Mr. Flint, considering the
25 answer you've just given, and considering the

1 Desert Renewable Energy Conservation Plan process
2 that's underway, and considering the cumulative
3 number of renewable energy projects proposed for
4 the desert, is it your opinion that there will be
5 sufficient mitigation lands for future projects
6 for these species in question?

7 MR. FLINT: There are so many -- for
8 some species, perhaps. There are so many
9 variables in that equation I would be really
10 speculating. We know at some point -- in an
11 attempt to answer that, I mean we know some facts
12 for sure, that there is a lot of federal land out
13 there that are available for, and were set up to
14 manage for desert tortoise.

15 We want to work with BLM to maximize
16 that and help enhance recovery of the species.
17 Some of those areas no longer remain populated for
18 various complex reasons of biology. So we can't
19 say that the species is totally secure, even
20 though that large amount of lands is there.

21 So we know there are additional good
22 quality habitat areas that are not under federal
23 control, they're in private hands. That can still
24 be preserved for desert tortoise and other
25 species.

1 project as a genetically distinct population of
2 Mojave Desert Tortoise, is that correct? And this
3 is an evolutionary significant unit?

4 MS. SANDERS: Yes.

5 DR. CONNOR: Okay. Do you know how much
6 habitat is occupied by the ESU in California?

7 MS. SANDERS: In terms of acres?

8 DR. CONNOR: Acreage, square miles,
9 anything.

10 MS. SANDERS: I can't recall, but I
11 think you described some of that in your
12 testimony.

13 DR. CONNOR: Okay, to your knowledge did
14 the FSA determine how much habitat is occupied by
15 the ESU in California?

16 MS. SANDERS: No, the FSA did not.

17 DR. CONNOR: Okay. Are you familiar
18 with the concept of connectivity?

19 MS. SANDERS: Yes.

20 DR. CONNOR: Did you analyze
21 connectivity in the FSA -- sorry, in the FSA/EIS
22 with respect to the northeastern Mojave ESU?

23 MS. SANDERS: We did in particular in
24 our impact analysis on cumulative, we discuss the
25 fact that this project, combined with others,

1 would contribute to fragmentation loss of
2 connectivity.

3 DR. CONNOR: Do you know what areas are
4 significant as far as connectivity for this
5 northeastern Mojave ESU and the rest of the ESUs
6 in California?

7 MS. SANDERS: I'm not sure what you mean
8 what areas are -- would you repeat the question?

9 DR. CONNOR: Where is the connectivity
10 between the northeastern Mojave ESU and the
11 adjacent ESUs in California?

12 MS. SANDERS: You mean its connections
13 with the eastern and the northeastern connected to
14 the eastern connectivity with the northeastern, is
15 that what you're asking about?

16 DR. CONNOR: Yeah.

17 MS. SANDERS: Well, I think it's been
18 discussed earlier the Clark Mountains is an
19 impediment to movement between those ESUs. And
20 currently there is a certain lack of connectivity
21 because of I-15, has been an impediment probably
22 to those populations.

23 DR. CONNOR: You're suggesting that the
24 I-15 is -- sorry, inhibits connectivity between
25 the ESUs?

1 MS. SANDERS: That's what I understand,
2 based on conversations with experts at BLM and
3 Fish and Wildlife Service. They all pointed to I-
4 15 as being a problem with fragmentation, movement
5 of -- with connectivity.

6 DR. CONNOR: Do you think that tortoises
7 cannot move across I-15?

8 MS. SANDERS: I think you would need --
9 well, I think there's a problem with mortality
10 from I-15. And talking about connectivity gaps,
11 that cause a lack of the ability of allowing gene
12 flow to occur.

13 DR. CONNOR: Do think it's important to
14 maintain the genetic population in California?

15 MS. SANDERS: I do.

16 DR. CONNOR: Okay. So connectivity is
17 important for maintaining this genetic pool?

18 MS. SANDERS: I think that's one of the
19 things that's important in recovery and
20 maintaining desert tortoise populations in the
21 state.

22 DR. CONNOR: And that's one of the
23 reasons why it's important to maintain
24 connectivity?

25 MS. SANDERS: I think so.

1 DR. CONNOR: Okay. How important do you
2 think the northeaster Mojave recovery unit is as
3 far as its contribution to the gene pool of
4 California?

5 MS. SANDERS: Well, it's a small part of
6 California.

7 DR. CONNOR: Um-hum. Okay. Do either
8 of you -- are either of you familiar with the NEMO
9 plan?

10 MR. FLINT: I am not in detail, but in
11 generally, yes.

12 DR. CONNOR: Because it has been
13 discussed a number of times, and obviously it's
14 referred to many times in the FSA. Do you know,
15 is your knowledge of the NEMO plan sufficient to
16 be able to tell us what size projects are covered
17 under the NEMO plan, under the NEMO EIS?

18 MR. FLINT: No, those details, I'm not
19 -- I don't have sufficient knowledge for that kind
20 of detail.

21 DR. CONNOR: Okay.

22 MS. SANDERS: My recollection is it's 40
23 acres, is that correct? As I recall you put it in
24 your testimony.

25 DR. CONNOR: Are you asking me a

1 question? It's 100 acres.

2 MS. SANDERS: Well, because it was in
3 your testimony. That's the only reason.

4 DR. CONNOR: I'm sorry.

5 (Laughter.)

6 DR. CONNOR: Okay, are you familiar with
7 the conservation strategy in the NEMO plan, as far
8 as the desert tortoise is concerned?

9 MS. SANDERS: Who are you asking that
10 question of?

11 DR. CONNOR: Oh, I'm sorry, I guess it
12 was Scott who's the --

13 MR. FLINT: Not specifically for that
14 plan, no.

15 DR. CONNOR: Okay, okay, all right.
16 Okay, that's it, thank you. I have no further
17 questions.

18 HEARING OFFICER KRAMER: Basin and Range
19 Watch.

20 MS. CUNNINGHAM: Laura Cunningham. I
21 just have one question for Mr. Flint.

22 CROSS-EXAMINATION

23 BY MS. CUNNINGHAM:

24 Q I was just curious, in past projects for
25 one project is it typical that mitigation lands

1 are small, widely scattered parcels over the
2 entire Mojave Desert?

3 MR. FLINT: Is that typical? No, that's
4 not. That's not typical. There are lands that
5 both BLM and we control now that if you look at
6 them they look like that. But that's because
7 we've been working to assemble them out of
8 individual small project mitigations.

9 For large projects we would look at an
10 opportunity to have large, contiguous, easily
11 manageable and defensible tracts of land. And
12 those that are near core populations or provide
13 connectivity for species to get to other protected
14 lands. So, in general, that's the approach we
15 would take.

16 Because we have all kinds of sizes of
17 projects and CESA only allows us to mitigate the
18 extent of the taking from each project, some
19 parcels we do get are small. But we endeavor to
20 work, over time, to build them into larger units.

21 MS. CUNNINGHAM: Okay. Is there like an
22 average -- this is probably a bad question, but
23 like what's the largest parcel that in a past
24 project, I'm just curious?

25 MR. FLINT: Well, I think we talked

1 about the Harper Lake LUZ project a little bit.
2 That was an energy project. I believe it was a
3 one-square-mile or one whole section, 640 acres,
4 one-square-mile project. And that was mitigated
5 at five-to-one, so there's five square miles
6 outside of habitat. And it's primarily
7 contiguous.

8 MS. CUNNINGHAM: Okay, thank you.

9 That's all.

10 HEARING OFFICER KRAMER: California
11 Native Plant Society. None from them.

12 Center for Biological Diversity.

13 MS. BELENKY: Thank you. I have a few
14 questions for Ms. Sanders.

15 CROSS-EXAMINATION

16 BY MS. BELENKY:

17 Q First, at one point you mentioned take,
18 and you were talking about the tortoise. And you
19 said that they couldn't be taken, they were going
20 to be moved. And I just wanted to clarify, or if
21 you could clarify, under the California Endangered
22 Species Act, take, I believe, means death.
23 Whereas under the federal Endangered Species Act
24 any harm or harassment is considered take.

25 Is that your understanding?

1 MS. SANDERS: That is my understanding.

2 MS. BELENKY: Okay, I just wanted to
3 clarify that. I just wanted to ask a couple
4 questions about staff's rebuttal testimony, which
5 is exhibit 305.

6 And in there you discuss the potential,
7 the possibility of an in-lieu fee program that
8 might be being developed by, as I understand it,
9 several of the agencies together would be
10 developing this project. And that would
11 potentially be an in-lieu fee program.

12 And that is on exhibit 305 at pages 19
13 to 20 it discusses this. And the staff says that
14 if it, meaning this program, is sufficiently
15 established and operational in a timeframe that
16 would allow revisions to the conditions of
17 certification bio-17, then the in-lieu fee program
18 would replace the security requirement described
19 in item 4 of bio-17.

20 So the thing that we've been talking
21 about all this time, which is this whole set of
22 mitigation requirements in bio-17, the staff is
23 saying if perhaps this other program is in place,
24 it might be able to substitute.

25 And my question for the staff is what

1 would be the deadline for the establishment of
2 that other program in order for it to be
3 meaningful to this process at this point? Do you
4 have some sense of the deadline for that?

5 MS. SANDERS: You know, I don't. It's
6 not really a biologist question. It's more of a
7 process --

8 MS. BELENKY: Who should I ask?

9 MS. SANDERS: -- question. Well, your
10 question is when is it too late to make that kind
11 of change, I understand. I think changes can be
12 made all the way up until the Presiding Member's
13 Proposed Decision is completed.

14 But I defer that question to people that
15 know more about the process.

16 MS. BELENKY: Okay, so there may be
17 someone else on staff who has an idea when they
18 said sufficiently established and operational, and
19 we'll see if somebody comes forward with that.

20 And then I have a couple of questions
21 for Mr. Flint that are sort of along the same
22 lines. As far as the in-lieu fee program, which
23 is also mentioned in the letter from the
24 department, which I understand is being developed
25 by a coalition or a group, which is called the

1 Renewable Energy Action Team, which includes, if
2 I'm correct, DFG, the Energy Commission, Fish and
3 Wildlife and the BLM, is that correct?

4 MR. FLINT: That's correct.

5 MS. BELENKY: Thank you. And the
6 substance of that program which in your letter you
7 call it conceptual in-lieu fee program, has that
8 been drafted yet?

9 MR. FLINT: We are currently working on
10 developing an in-lieu fee program. And if I can
11 just have a minute or two to elaborate.

12 In addition to working with our sister
13 and federal partner agencies to accelerate the
14 permitting under current state law, the department
15 and CEC and the REAT agencies are also working on
16 a desert renewable energy conservation plan.

17 And that plan is being set up under the
18 authority of the National Community Conservation
19 Planning Act, which is in Fish and Game Code.

20 One of the tools that we would be
21 looking at in the toolbox to implement a
22 conservation strategy, in part, of which would be
23 used to mitigate the impacts from a large number
24 of these projects in the desert, would be an in-
25 lieu fee program.

1 And the way the in-lieu fee program
2 would work is we would primarily be looking for a
3 third-party fiduciary sponsor to hold funds in
4 specific accounts that are similar to the accounts
5 we set up currently under our permitting.

6 So an account for land acquisition; an
7 account for long-term management; an account for
8 initial enhancement. And those things would be
9 separately set up and tracked.

10 And, you know, in-lieu fee programs have
11 come and gone over the years, and they have
12 problems. So we're working really hard to set up
13 a program that will address all the problems, like
14 money not getting on the ground fast enough and
15 losing buying power. Money being redirected to
16 other things. Money not being spent for specific
17 projects.

18 What we're trying to do is put together
19 a program where we have a third-party money
20 manager. The agencies agree to make decisions on
21 projects that are funded out of those accounts in
22 line with our permits that we're currently
23 issuing. And eventually in line with a DRECP or
24 an NCCP permit. That would be issued for the
25 whole plan.

1 And so that's how the money would work.
2 And the decision would still be tied to permit
3 requirements and the specific mitigations for the
4 project.

5 So if there were a certain acquisition
6 requirement or a certain management requirement
7 with certain projects specified, we would insure
8 and a third party would insure that money gets to
9 those projects on the ground as soon as possible.

10 And we would be looking for third
11 parties to help us with land acquisition. And in
12 this mode, this is a tool that is fairly common in
13 different iterations under NCCPs. But also it's a
14 way to speed up getting the projects on the
15 ground.

16 And we, you know, the state is
17 considering a policy shift from what I did
18 describe earlier where we do take some of the
19 responsibility that we haven't taken in the past
20 from the applicants to make this happen. But we
21 have to have a program that's tight and structured
22 to be able to accept that money and get it on the
23 ground and solve these problems from past in-lieu
24 fee programs.

25 So that is what we are trying to work

1 on. We are working on it now. We don't yet know
2 how useable it will be for individual projects.
3 We think we could use it. It was originally set
4 up to be part of the DRECP concept.

5 We would like to continue to work and
6 bring the projects -- bring projects that are
7 currently in the permitting process into that, if
8 we possibly can, as a interim process -- piece of
9 interim process for the DRECP plan.

10 So, that's what we're considering, but
11 it's not all there. So its utility is still not
12 clear. But we, you know, we feel that would help,
13 from the state's perspective, facilitate getting
14 the facilities out there on the ground and solving
15 some of the issues that the applicants are running
16 into.

17 Also put the resource agencies and BLM
18 in the role that we actually do anyway on the back
19 end with a lot of applicants and spend a lot of
20 time with, is trying to identify the right lands
21 and get those activities on the ground and put us
22 in a more direct hands-on role in accomplishing
23 that and accomplishing better conservation.

24 So that's the idea. Whether we can use
25 it right away or not depends on how fast it gets

1 set up. And we're actively working on it.

2 MS. BELENKY: Thank you --

3 MR. FLINT: It would be a bit
4 speculative at this point to put it out.

5 MS. BELENKY: Thank you. That was a
6 very helpful explanation. So at this point it
7 remains a future aspiration, something that's
8 being developed, but it has not yet been
9 developed? Is that correct to say?

10 MR. FLINT: Yes, but if I may venture
11 just a little further and not get myself in too
12 much trouble, one of the things that, again, one
13 of the things we want to tie that to, being able
14 to secure projects and let them go forward.

15 And during the time that the obligation,
16 if the timing works out right -- it's all a matter
17 of timing -- during the time where their
18 obligations are -- that they have to fulfill the
19 projects, the 18 months or the whatever months, we
20 get this in place, we would want to be able to
21 still consider that as an option.

22 I don't know if it works for the
23 Commission process or not fully. And what it
24 would entail to amend things at certain points.
25 But we haven't talked about those details. But by

1 applicants securing their obligation, it still
2 could provide -- be a useful tool for some of them
3 that are going through the permitting pipeline.

4 MS. BELENKY: Thank you. I do just want
5 to make sure we're talking just about this
6 project, as far as, you know, today, there's no
7 developed --

8 MR. FLINT: Right.

9 MS. BELENKY: -- program, and it isn't
10 ready to be released --

11 MR. FLINT: Right.

12 MS. BELENKY: -- in a short timeframe.
13 I don't want to keep you too long -- oh, we're
14 here so late -- I just had a couple of quick
15 questions while you're here today, because I think
16 this is the opportunity to talk about other
17 biological issues that were raised in your letter.
18 Just really a couple of quick points.

19 Your -- the letter also mentions, you
20 know, the presence of bighorn in the area, that
21 there would be likely impacts to bighorn.

22 Did you adopt this letter as part of
23 your testimony? Or is it just an exhibit? I'm
24 not sure exactly how that -- how we're referring
25 to it.

1 MR. FLINT: Well, the department
2 docketed the letter as recommendations to the
3 Energy Commission Staff. That's how, again,
4 that's all I know about --

5 MS. BELENKY: Okay.

6 MR. FLINT: -- about what it actually is
7 in this proceeding. But did you have a question
8 on bighorn?

9 MS. BELENKY: Well, my question is just
10 that, so you would agree with the letter that
11 states that there will likely be impacts to
12 bighorn, and that it's important to take some
13 basic measures to minimize those impacts.

14 MR. FLINT: I think everyone agrees
15 there's some uncertainty about the actual use of
16 the site of the bighorn. And I'm not an expert,
17 so I need to put that out there right now.

18 The site not being accessible to bighorn
19 after it's fenced, even in a configuration with
20 the lower impact configuration with less grading,
21 would put it off limits for forage for the
22 species. So there would be that kind of impact
23 most likely to bighorn.

24 The amount of use, you know, is still
25 not certain.

1 MS. BELENKY: Thank you. I just had a
2 couple of quick questions also about the -- what's
3 called the CNDDDB database, which is the California
4 -- I'm sure you know what it is -- California
5 Natural Diversity Database.

6 And I just wanted to clarify, I
7 understand the Department of Fish and Game manages
8 that database, is that correct?

9 MR. FLINT: That's correct.

10 MS. BELENKY: And the database reports
11 information that has been input into the database,
12 is that correct?

13 MR. FLINT: That's correct.

14 MS. BELENKY: And so would it be fair to
15 say that in some areas the database has a large
16 amount of detailed information because surveys
17 were done and it was input, is that correct?

18 MR. FLINT: That's correct.

19 MS. BELENKY: And in other areas the
20 database does not have information because either
21 surveys were not done, or whether or not surveys
22 were done, that data was not input into the
23 database, is that correct?

24 MR. FLINT: That's correct, and --

25 MS. BELENKY: So the fact that there

1 might not be data in the CNDDDB database for a
2 specific species in a specific area is not
3 evidence that there is no species in that area, is
4 that correct?

5 MR. FLINT: That's correct.

6 MS. BELENKY: Okay, I just wanted to
7 double-check. Thank you very much.

8 HEARING OFFICER KRAMER: Follow-up
9 question about the, I guess I'll call it the
10 alternative mitigation system, where you might
11 accept fees, and as you said, change the
12 responsibility for identifying and acquiring
13 parcels.

14 What is the soonest that that might be
15 available as a tool, in months, say?

16 PRESIDING MEMBER BYRON: And remember,
17 Mr. Flint, you're on the record here.

18 (Laughter.)

19 MR. FLINT: Well, since I'm having a
20 primary responsibility for making that happen back
21 at Fish and Game, I'm not going to commit to a day
22 right now, on the record.

23 We are working on it actively. All four
24 partners are engaged. We are far along on the
25 proposal. We've talked to third parties,

1 acquisition folks. We've talked to the third-
2 party fiduciary and are working through setting
3 that up.

4 We've been asked to move it as fast as
5 possible, it's a high priority. Folks want to use
6 it as an option if it's workable.

7 PRESIDING MEMBER BYRON: And the reason
8 I was kidding Mr. Flint, was because our agency's
9 involved in this as well, and we all know full
10 well the staff's working feverishly to get this
11 work done. Go right ahead with your questions.

12 HEARING OFFICER KRAMER: Is it likely to
13 be available in the next two or three months?

14 MR. FLINT: That is our target, but it
15 could be four to six. Within six months is a
16 good, I mean I'm willing to say that.

17 HEARING OFFICER KRAMER: Okay. Early on
18 in your testimony you made a statement to the
19 effect that the conditions mostly get us there, as
20 far as full mitigation of the species impact.

21 And then you talked about some, it
22 sounded to me like you, you know, negotiation of
23 specific details would be the final steps to get
24 to the point of fully being there.

25 And I wanted to ask you, that process

1 and working out those details, is that all, in
2 your opinion, contemplated by and required by the
3 conditions of approval as they exist in the FSA at
4 this point? Or, --

5 MR. FLINT: Well, if I can just clarify
6 what I meant. That was not a great
7 characterization, almost get us there.

8 What I meant by that was we know we have
9 a solid list of management measures that will
10 benefit the species, and can be done on public
11 land. They're part of the land management plans
12 BLM has out there. I mean these things are goals
13 of that plan, and they're also part of the
14 recovery plan.

15 We have a menu of things that include
16 maybe eight, nine or ten things. And what I meant
17 was we don't know exactly what specific
18 combinations of those things to recommend.

19 For instance, there would be tortoise
20 fencing along the highway to reduce mortality on
21 the highway. But at the same time, you have to
22 make sure you're not cutting off connectivity and
23 you have connectivity. Because they do cross the
24 highway, highway 15.

25 We have some other areas where it will

1 be great to fence them out in places where they
2 are impacted by near communities, whenever they're
3 impacted by humans, and keep them out of those
4 areas.

5 And reducing mortality will benefit the
6 species. So that's one kind of measure. But we
7 don't know -- we know where this needs to be done,
8 but we don't know in exactly what combination or
9 what place is the best set of recommendations at
10 this point.

11 So it's not a matter of even negotiating
12 those details. It's a matter of just still
13 reviewing some of the biology. It's very complex.
14 And doing it with the agencies and doing it, you
15 know, we're making our best professional judgment,
16 and making some assumptions here.

17 There's a scientific basis for what
18 we're doing, but there's not -- you know, we can't
19 -- we don't really know the extent of the
20 improvements incrementally and specifically to be
21 able to lay them out in a really comprehensive
22 manner.

23 So that's what I meant by, that piece is
24 not quite worked out. And they're alluded to, but
25 we just haven't gotten that far yet.

1 HEARING OFFICER KRAMER: And that's
2 about the use of the one-third money that would be
3 paid under the --

4 MR. FLINT: Yes.

5 HEARING OFFICER KRAMER: -- BLM formula?

6 As far as the bighorn sheep are
7 concerned, at the time you made your comments
8 expressing concerns about them, was the proposal
9 on the table as it is now required in condition
10 bio-19, that the project owner create an
11 artificial water source in the Clark Mountain
12 Range for the benefit of the sheep?

13 MR. FLINT: I have to say I don't know.
14 I know that we -- I know the timing is a little --
15 I'm not completely down on the timing, and I know
16 we got this comment letter in fairly late, before
17 the final final staff assessment came out.

18 So, you know, there could have been some
19 -- and the staff was working fast and furious --
20 there could have been some things that were
21 missed. But I don't know for sure. I would have
22 to get some help to answer that question.

23 HEARING OFFICER KRAMER: Okay, thank
24 you. Sierra Club.

25 MS. SMITH: I have one question for

1 Mr. Flint.

2 CROSS-EXAMINATION

3 BY MS. SMITH:

4 Q You mentioned that connectivity of
5 habitat was important for desert tortoise in
6 response to a question from Mr. Ratliff, is that
7 right?

8 MR. FLINT: I believe so, yes.

9 MS. SMITH: With respect to the Ivanpah
10 desert tortoise, what effect would the project
11 have on connectivity for just this population, so
12 at the Ivanpah Valley?

13 MR. FLINT: I think my statement was
14 more broad than that. I'm thinking in context of
15 overall conservation. One of the goals of our
16 conservation planning effort is to identify the
17 critical connectivity.

18 And, again, in that area I'm not -- in
19 that particular location I'm not the expert. We
20 have field staff. So I really can't speak that
21 specifically on that particular question. I'm
22 sorry.

23 MS. SMITH: You aren't comfortable
24 answering that question?

25 MR. FLINT: No.

1 MS. SMITH: Okay, I'll withdraw it,
2 then. Thank you.

3 HEARING OFFICER KRAMER: On the
4 telephone, County of San Bernardino, any
5 questions?

6 MR. BRIZZEE: No questions, thank you.

7 HEARING OFFICER KRAMER: I don't believe
8 we have any other intervenors on the telephone.
9 But if I'm wrong, please identify yourself and
10 tell me if you have any questions for these
11 witnesses.

12 Okay, hearing none, Mr. Ratliff, any
13 redirect?

14 MR. RATLIFF: The applicant has --

15 HEARING OFFICER KRAMER: Oh, I'm sorry,
16 yes, I forgot the applicant. I'm not used to you
17 going last.

18 MR. HARRIS: That's right, exactly. I
19 appreciate the accommodation very much.

20 ASSOCIATE MEMBER BOYD: -- rehabilitate.

21 MR. HARRIS: One day at a time, yes. So
22 we're moving forward. And actually I do
23 appreciate the opportunity to go last. There's a
24 whole lot of things we were going to have to bring
25 up that we don't have to bring up now, they've

1 circumstances can you issue a lake and streambed
2 alteration agreement without a final EIR, assuming
3 the housing development requires an EIR?

4 MR. FLINT: When the department issues
5 the streambed alteration agreement, that is an
6 action under CEQA that the department must comply
7 with CEQA for.

8 So when we issue it we either need to
9 act as the responsible agency, now I got it right
10 this time, using the lead agency CEQA document and
11 make findings -- independent review and make
12 findings. Or we need to take on the CEQA lead
13 responsibility and fulfill CEQA for issuance.

14 MR. HARRIS: So, again, in this non
15 preemptive circumstances it would be -- put it in
16 the form of a question -- is it more typical that
17 you would rely on a lead agency like a city or a
18 county approval of a housing development, rely on
19 their EIR in putting together the streambed
20 alteration agreement?

21 MR. FLINT: That's typical, yes, on
22 projects where there's local jurisdiction.

23 MR. HARRIS: Okay. And the third word,
24 the last word in that string is agreement,
25 correct? It's not a permit, it's an agreement, is

1 that correct?

2 MR. FLINT: That's correct.

3 MR. HARRIS: And in that typical non
4 preempted process, is there a process for
5 arbitration if, in this case the example the
6 housing development, decides that they don't like
7 or agree with the proposed conditions for that
8 agreement?

9 MR. FLINT: That's correct.

10 MR. HARRIS: Okay, so that's the non
11 preempted world of lake and streambed alteration
12 agreements.

13 So, before the kind of the world order
14 change here, if you will, I think the way that the
15 Commission had typically dealt with this, and any
16 of the witnesses can answer these questions, if
17 they'd like, my understanding that prior to this
18 case the way that the Commission dealt with the
19 lake and streambed alteration agreements would be
20 to write a condition that said go out and get your
21 lake and streambed alteration agreement before you
22 begin construction.

23 Is that your understanding of the way
24 things were done before this sort of new
25 understanding?

1 MS. SANDERS: If I could answer that.
2 We've been doing, incorporating streambed
3 alteration agreements into our conditions since, I
4 think, late 2007, I believe.

5 MR. HARRIS: So without quibbling about
6 the dates, pre-2007 how did you deal with the
7 issuance of -- or the issue of a streambed
8 alteration agreement? Was it through a condition
9 in the conditions --

10 MS. SANDERS: As you described, it was
11 directing the applicant to get the streambed
12 alteration agreement from Fish and Game.

13 MR. HARRIS: And, you know, whatever
14 date the world changed there, around 2007, is the
15 understanding now essentially that Fish and Game
16 is preempted and that they make recommendations to
17 the Commission on these issues? Is that your
18 understanding of how it proceeds?

19 MR. FLINT: Yes, that's how I've been
20 advised.

21 MR. HARRIS: So, in a sense, or in
22 reality the Commission is standing in the shoes of
23 the department in the issuance of that lake and
24 streambed alteration agreement, is that correct?

25 MR. FLINT: That's correct.

1 MR. HARRIS: And in implementing that
2 program the Commission should implement that
3 process as the department would implement that
4 process but for the preemption, is that correct?

5 MR. FLINT: That's not a simple yes or
6 no answer. We have, you know, have conferred with
7 our legal counsel on this issue. And I can't
8 speak for them here, but -- well, I guess I can.
9 It's been the opinion of our legal counsel that
10 the -- a lot of what's in the 1600 statute, which
11 we don't have separate regulations to implement,
12 so we implement straight out of the statute, is
13 procedural.

14 And with the Energy Commission standing
15 in our stead, that those procedures are not
16 binding on the Energy Commission. And that they
17 have a process where they essentially weigh and
18 arbitrate evidence through the AFC process and the
19 proceedings here before the Commission.

20 So that it's the opinion of our counsel
21 that a) those procedural requirements don't apply
22 to the Commission; and two, that they have a
23 procedure that is effectively equivalent, also.

24 So that's been my advice from my legal
25 counsel.

1 MR. HARRIS: Okay, so your legal -- I
2 want to make sure I can summarize this correctly.
3 The advice of your legal counsel is that if you,
4 Fish and Game, in my housing development example,
5 are issuing the lake and streambed alteration
6 agreement, that you follow your regular
7 procedures, both the procedural aspects and the
8 substantive aspects of the 1600 requirements.

9 But if the Energy Commission's standing
10 in your shoes, is issuing that permit, they're not
11 bound to follow those same requirements?

12 MR. FLINT: That's how I've been
13 advised.

14 MR. HARRIS: Okay, thank you. That's
15 the answer then.

16 See if I can cut this down even more.
17 Mr. Flint, in your capacity with the Department of
18 Fish and Game, you've been very involved in the
19 issuance of the incidental take permits, the
20 section 2081 process, is that correct?

21 MR. FLINT: That's correct.

22 MR. HARRIS: And in the implementing
23 regulations, as well?

24 MR. FLINT: Yes, that's correct.

25 MR. HARRIS: And which regulations are

1 those?

2 MR. FLINT: I don't remember the actual
3 section, but there are regulations to implement
4 the California Endangered Species Act permitting.
5 I'm sorry, I don't have the citation right in
6 front of me.

7 MR. HARRIS: Would you accept, subject
8 to check, that it's 14CCR783.4?

9 MR. FLINT: That sounds right.

10 MR. HARRIS: Okay. Sorry, I didn't mean
11 to --

12 MR. FLINT: No, before --

13 MR. HARRIS: -- trip you up with that.

14 MR. FLINT: -- before I changed jobs I
15 used to know this, but --

16 MR. HARRIS: I find it increasingly
17 less space in my brain, too, so,

18 In terms of both the code and the
19 regulation, does the word acquisition appear in
20 either the Fish and Game Code section or in the
21 implementing regulations, to your recollection?

22 MR. FLINT: No. The word acquisition
23 does not appear anywhere in the regulation or the
24 code.

25 MR. HARRIS: And to your recollection

1 does the word, I guess it's two words, do the
2 words in perpetuity occur in either 2081 or in the
3 implementing regulations?

4 MR. FLINT: Can I check just for one
5 second here?

6 MR. HARRIS: I'll whistle "Final
7 Jeopardy" while you -- I've got copies, too, if
8 you need them, Scott.

9 (Pause.)

10 MR. RATLIFF: Mr. Flint, if you don't
11 know the answer it's okay to say you don't know
12 the answer.

13 PRESIDING MEMBER BYRON: Well, since Mr.
14 Harris asked it, I think we all know the answer.

15 (Laughter.)

16 MR. SPEAKER: I don't know the answer.

17 MR. FLINT: That particular wording is
18 not in the code or the regulations.

19 MR. HARRIS: Okay,

20 PRESIDING MEMBER BYRON: Right, right
21 answer. I'm just guessing, Mr. Harris.

22 MR. HARRIS: Thank you, sir.

23 Okay, I think I want to move back, if I
24 can, real quick.

25 Mr. Flint, one of the concerns that the

1 solar industry has is about the acquisition
2 requirement and the availability of lands. So,
3 you're looking for, on this project, approximately
4 8000 acres of acquisition land, is that correct?

5 MR. FLINT: If the department were
6 issuing the permit the applicant would be looking
7 for 8100 acres of land.

8 MR. HARRIS: I sit corrected, that's
9 right, thank you. So that's for this first 400
10 megawatts. And I think I heard you -- well, let
11 me ask the question.

12 Did I hear you testify that you believe
13 that there is 8000 acres available for the first
14 400 megawatts?

15 MR. FLINT: Yes. Our regional staff
16 have, again, the region 6 is the Fish and Game
17 Region, the Inland Desert Region. And I mentioned
18 earlier they're one of the most -- the active
19 regions in CESA permitting.

20 So they're always actively involved in
21 identifying available lands for mitigation. And
22 most of those are for tortoise, and some for
23 tortoise and Mojave ground squirrel.

24 And so based on their assessment, they
25 have identified at least in excess of 12,000 acres

1 that is immediately available. And also have
2 identified, and we have passed on to BrightSource,
3 on several occasions, not specific parcels, but
4 we've identified specific areas or regional areas
5 where these acquisition lands -- these lands might
6 possibly be available to acquire.

7 Of course, there's all kinds of other
8 issues around acquisition. It's not just those of
9 biological suitability. There's also willing
10 seller and need to pay, you know, appropriate
11 price negotiations. But that's the applicant's
12 responsibility.

13 So just because we identify it as
14 suitable habitat and possibly available doesn't
15 mean it's going to be possible for it to be
16 acquired by the applicant.

17 MR. HARRIS: So let me ask you if you
18 would produce that list for the Committee and for
19 the Commission. Because I'm unaware of any such
20 list detailing available properties. And believe
21 me, if we could take these issues off the table we
22 would be more than pleased to do so.

23 So, can you provide that list for the
24 Committee? And can we make that an exhibit?

25 MR. FLINT: I can provide that list. I

1 don't have it with me, but I can provide it.

2 MR. HARRIS: You're close to your
3 office, but I'm sure it's closed by now.

4 Just kind of doing the math, this is the
5 kind of thing the solar industry is worried about,
6 okay, so you've got 8000 acres of acquisition for
7 this first project. And then if you logically go
8 forward down the route, it would be 16 for the
9 second and 24 for the third, 32 for the fourth, 40
10 for the fifth, and if I did my math right all the
11 way up to ten, you get to 78,000 acres for ten
12 projects.

13 And so that would be about 78,000 acres
14 of land for 4000 megawatts of solar, using our
15 400, just multiplying our numbers by ten,
16 essentially. And multiply mitigation by ten.
17 I'll check my math. Maybe I should have ended up
18 at 80 instead of 78, but liberal arts fails me
19 sometimes.

20 So, assuming it's 78,000 or even 80,000
21 for 4000 megawatts of power in California, do you
22 believe that the department can put together a
23 list of 80,000 acres of available property?

24 MR. FLINT: Not, you know, not knowing
25 the specifics of each project, yet, but this is

1 one of the purposes for the department embarking,
2 again jointly, with CEC on the desert renewable
3 energy conservation plan.

4 So that planning effort is a public
5 process. And it would be a process whereby the
6 department, CEC and stakeholders, appropriate
7 stakeholders, including the development interests,
8 participate in the identification of appropriate
9 conservation needed for the species throughout its
10 range in the desert.

11 Once we do that, the department would be
12 in a position to a) be a partner in implementing
13 that conservation so that under NCCP permit, if
14 that were to be issued on such a plan, the
15 department would actively work in partnership with
16 other stakeholders, including developers, to
17 secure that total amount of required conservation.
18 So that's one element of it.

19 And secondly, within that, the
20 department and the plan and CEC would work to
21 apportion out the parts of the mitigation
22 obligations of the -- for the amount of land that
23 may be impacted in development areas identified in
24 that plan, to figure out the other part of the
25 puzzle piece of conservation.

1 So, until we get to that plan I can't
2 really say how it would all work out, and which
3 projects will go forward and which ones won't. So
4 it's kind of hard to add all that up.

5 But, so, you know, -- but I can say, you
6 know, again, this is a problem, we're moving
7 forward on two fronts here, trying to do the plan,
8 and trying to permit the projects in the pipeline
9 and keep them going.

10 So, for now, we are left with treating
11 this project as an individual project. And we're
12 treating it as, for the most part, we have treated
13 every other project that goes through this
14 permitting process, either at the department,
15 and/or in combination with the Commission's
16 process.

17 MR. BASOFIN: Mr. Kramer, I'm sorry to
18 interrupt Mr. Harris. I just have, I guess, a
19 point of order. I mean I can't make an objection
20 because there isn't an exhibit yet, but I think
21 I'm concerned about where Mr. Harris is going with
22 this in requesting a list of potential acquisition
23 lands.

24 There's been a lot of discussion here
25 today about who's responsible for parcel

1 identification and acquisition. And the idea of
2 submitting a list in isolation, I think, is
3 troubling. Because, as Mr. Flint knows, there's
4 quite a bit of work, background work that's done
5 in identifying parcels that may be suitable for
6 acquisition.

7 And I feel that an exhibit with, you
8 know, an isolated list of parcels would be
9 somewhat mischaracterizing that process.

10 MR. HARRIS: Let me be clear. I've
11 asked him to produce the list he says already
12 exists. I guess I've asked for two lists, Josh.

13 Sounds like you're more worried about
14 the second list, the 80,000-acre list. But the
15 first thing I asked for was what the witness
16 opened the door and offered, which was, we have a
17 list that we've given BrightSource before. And
18 I'd like that to be part of the record.

19 Second, both of these items go directly
20 to the feasibility of the mitigation. CEQA
21 requires mitigation to be feasible. And if it's
22 infeasible to find 8000 acres of land, then this
23 is not a feasible mitigation strategy that staff
24 has offered up in bio-17.

25 So it very much goes to the heart of the

1 issues in this case.

2 MR. BASOFIN: But --

3 MR. RATLIFF: It goes to the heart of
4 the issue, but I think the question we would have
5 is whether the very revelation of the list might
6 make it infeasible. Because suddenly that
7 property is going to be worth -- the moment it's
8 published -- is going to be worth a whole lot more
9 than it was before it was published.

10 And that's going to make you have to pay
11 more money for that land that you acquired.

12 MR. HARRIS: We appreciate you looking
13 out for us.

14 MR. RATLIFF: So, it's a self-defeating
15 proposition --

16 MR. HARRIS: Appreciate you looking out
17 for us on this thing, but again, this is a list
18 that exists. We can do a Public Record Act
19 Request --

20 MR. RATLIFF: The fact that it exists
21 has nothing to do with whether or not you want to
22 post that kind of delicate information about land
23 acquisition.

24 MR. HARRIS: We do, and -- we do want
25 that information into the record. It's existing

1 information and Mr. Flint has said that they
2 provided it to us before. And there's no reason
3 that they can't provide it to us again.

4 MR. RATLIFF: Have you lost it, or what?
5 I mean --

6 MR. HARRIS: Well, we never got it.
7 That's why I'm dying to see it. Because, believe
8 me, if he had prefiled testimony it probably would
9 have been included. But he didn't. And I'm
10 asking for some leeway from the Committee, given
11 the fact that he was allowed to testify without
12 prefiled testimony, as well.

13 MR. BASOFIN: If DFG had this list and
14 gave it to the applicant, the applicant's had
15 ample time to submit it as an exhibit.

16 MR. HARRIS: We never saw it. I will
17 certify, you want to swear me in, Mr. Petty, I
18 never saw this list.

19 HEARING OFFICER KRAMER: My turn?
20 Objection overruled.

21 MR. HARRIS: And I violated Commissioner
22 Byron's admonition to talk softly, so --

23 HEARING OFFICER KRAMER: The parties --

24 MR. HARRIS: -- going to go back to it.

25 HEARING OFFICER KRAMER: Yeah, both of

1 you guys got a little animated there. The parties
2 can, of course, argue about the significance of
3 this in their briefs.

4 MR. FLINT: May I just clarify --

5 HEARING OFFICER KRAMER: Mr. Flint.

6 MR. FLINT: -- to lower expectations?

7 The list that I --

8 (Laughter.)

9 MR. FLINT: The list that I have does
10 not include a list of parcels that could be
11 acquired. The list I have is a list of general
12 areas that the applicant can go look for
13 mitigation lands in. And that was handed to the
14 applicant December 4th, December 30th and January
15 26th, at a minimum, and more times after that.

16 So I just want to be clear that it's not
17 a list of parcels you can go and look to acquire.
18 So the expectations seem to be a little elevated
19 there, I just wanted to clarify that.

20 HEARING OFFICER KRAMER: And this is a
21 document you'll be able to offer Mr. Ratliff
22 tomorrow, for instance?

23 MR. FLINT: Yes.

24 HEARING OFFICER KRAMER: Okay, well,
25 then what I will do is reserve exhibit 310 as a

1 placeholder for this. After we receive it
2 tomorrow to look at, then we will entertain
3 further arguments about whether it should be
4 entered into the record.

5 But I would suggest that this
6 discussion, without having it in front of us
7 tonight, will burn up time and be more
8 productively held after we have the document to
9 look at.

10 PRESIDING MEMBER BYRON: Mr. Kramer, if
11 I may, I just have a question or two. This
12 conversation has provoked some thought with regard
13 to -- well, I'll just state it -- the way we're
14 headed with the mitigation.

15 You know, this Commission, the state has
16 some long-term goals with regard to renewables.
17 And I was just trying to do some math here if I
18 was to do Mr. Harris' scaling, 8000 acres times
19 10, you know, for 4000 megawatts.

20 And really, we're talking in the long
21 run of 30,000 to 40,000 megawatts that would need
22 to be installed to reach more like the 33 percent.

23 That's -- well, I'm getting on the order
24 of 120 square miles of mitigation land.

25 MR. FLINT: There is a -- I mean that's

1 exactly why we have embarked on the DRECP plan.
2 There is a ultimate conservation solution for the
3 species. And until we know that, it's hard to
4 figure out -- there's no way to apportion the
5 overall conservation between partners and
6 individual projects.

7 And that's something that's out there in
8 the future, but it's just something we can't do
9 right now.

10 So I just have to also add, in
11 recognition of this, one, the effort to need to
12 step up our ability to execute the recovery plan
13 for the species, because, as was stated earlier,
14 even though the plan -- there's been a plan out
15 there since '94, it hasn't been effective.

16 It's being retooled. That's why the
17 department has moved away from full acquisition as
18 a mitigation for this project, and to a third of
19 it being management measures on existing BLM land.
20 That is a departure in recommendation from the
21 department on its typical full all-acquisition
22 recommendations for most species.

23 And it's primarily recognized as needed
24 for desert tortoise. And it's because of the
25 unique nature of what exists in the Mojave Desert

1 where a lot of the species is on already public
2 lands.

3 So we have taken that into consideration
4 in our recommendations to that level.

5 PRESIDING MEMBER BYRON: Thank you.

6 HEARING OFFICER KRAMER: Okay, Mr.
7 Harris, were you finished?

8 MR. HARRIS: I'm going back to my inside
9 voice.

10 MS. BELENKY: An objection to the line
11 of questioning that where you're putting together
12 all the possible projects, I don't believe that
13 those facts are in evidence here. And it assumes
14 that there would be desert tortoise habitat that
15 would need to be mitigated to a certain level, or
16 other species' habitat that would need to be
17 mitigated to a certain level.

18 And those facts simply aren't in
19 evidence here. So I would like to at least ask
20 that we strike that part about however many
21 thousands of acres you made up -- I'm not sure how
22 many there were. I just think that that's all
23 hypothetical.

24 And I don't want to leave everyone with
25 the impression that that siting always has to be

1 in areas where there are endangered species, or
2 that siting of these plants always have to be in
3 areas that will need to be mitigated to the level
4 that this plant does, because it is sited in
5 occupied habitat for a listed endangered,
6 federally listed species and other -- I'm sorry I
7 didn't mean to go off and make a speech.

8 PRESIDING MEMBER BYRON: Well, Ms.
9 Belenky, thank you. Of course, I'm the one we're
10 talking about who's leaving that impression. And
11 we can strike it, certainly, from the record. But
12 I still have that impression. We're talking about
13 a lot of square miles of land. And that's okay.

14 HEARING OFFICER KRAMER: Well, my ruling
15 would have been that --

16 (Laughter.)

17 HEARING OFFICER KRAMER: -- you know, we
18 understand it's a hypothetical. And consider it
19 for what it's worth. And I would have overruled
20 the objection.

21 Commissioner Byron, would you
22 consider --

23 MR. RATLIFF: We'll accept the first
24 answer, actually.

25 PRESIDING MEMBER BYRON: Go right ahead.

1 HEARING OFFICER KRAMER: Okay, so then
2 my, I guess my order will take effect.

3 MR. HARRIS: That'll keep me quiet, if
4 it helps.

5 HEARING OFFICER KRAMER: Another two
6 birds.

7 So, Mr. Harris, continue.

8 MR. HARRIS: Okay, with my indoor voice,
9 too.

10 Just a few more questions on this line.
11 Mr. Flint, you talked about the developing DRECP
12 and the in-lieu program there, is acquisition
13 always going to be a part of where you think that
14 program is headed?

15 MR. FLINT: Yes.

16 MR. HARRIS: And will there be other
17 measures that would be implemented as part of that
18 program? And I'm thinking specifically about
19 desert tortoise fencing, those kind of measures.
20 Will the DRECP be strictly acquisition, or will
21 they allow for other activities and other
22 effective measures for protection of the species?

23 MR. FLINT: It will be a combination of
24 those measures. And, again, you know, to the
25 acquisition discussion there are other species

1 besides the -- out there that are in need of
2 protection. And following the Fish and Game
3 mitigation model, including acquisition
4 components, there are other species that aren't
5 necessarily all addressed on tortoise habitat,
6 either.

7 So there's always going to be some
8 components of acquisition, both for the tortoise,
9 until there's eventual -- a full conservation
10 solution for the tortoise out there, and for other
11 species, as needed, based on impacts from
12 individual projects.

13 So, yes, but again, we're looking at a
14 combination of measures, management measures on
15 public land. And we propose that those be part of
16 the mitigation solution for the Ivanpah project,
17 also. Not delaying those till implementation of
18 the DRECP.

19 MR. HARRIS: What specific measures did
20 you have in mind? I mentioned desert tortoise
21 fences. Grazing allotment, retirements, habitat
22 restoration. What would you put on that laundry
23 list of measures?

24 MR. FLINT: The primary measures that we
25 went through in the recovery plan, the primary

1 measures that we've identified that we know would
2 benefit the species would include, as I mentioned
3 earlier, some fencing, strategic fencing in
4 certain locations along I-15 and other areas to
5 reduce mortality and also provide a little boost
6 to and usability of habitat inside a fenced area.

7 Habitat restoration including closing
8 illegal four-wheel drive roads and things like
9 that. To encourage and then actively put --
10 actively, intensely restore those areas so that
11 they get back into use for the species as soon as
12 possible.

13 Exotic plant removal is another thing,
14 to allow the appropriate forage to come back in
15 areas that are heavily impacted by exotics, for
16 desert tortoise to get back to the appropriate mix
17 of forage and edible species for that, for desert
18 tortoise.

19 So those are some. And grazing
20 allotments was on there, but that's not high on
21 the list, and not a preference of the department.
22 Retiring the grazing allotments, where they
23 conflict with desert tortoise management, is a
24 possibility, but it's lower on the list.

25 That's, you know, I mean just relatively

1 speaking, I want to go into details about money,
2 but relatively speaking, the buyout of grazing
3 allotments is high cost and not, in the
4 department's opinion, not sufficient benefit to
5 the species as these other actions happening
6 first.

7 So, we have a hierarchy of what we would
8 recommend, too, for appropriate actions.

9 MR. HARRIS: I'm wearing out my welcome,
10 so I've got just a couple more questions.

11 I'm going to go back to -- I want to say
12 Susan -- Ms. Sanders -- is it Sanders, correct? I
13 would say Susan -- apologize.

14 A couple things. Mr. Ratliff asked you
15 questions about consistency with other Commission-
16 approved projects. And you listed a number of
17 projects. I think Harper Lake, Victorville, High
18 Desert, and I think the one you said you're
19 working on is probably Beacon? Have I got that
20 correct? Was there a fifth? Did I miss one in
21 that grouping?

22 MS. SANDERS: No, I think that's the
23 list.

24 MR. HARRIS: Harper Lake is located on
25 private lands and not BLM lands, isn't that true?

1 MS. SANDERS: I'm not sure.

2 MR. HARRIS: The Victorville 2 project
3 is located on private lands and not BLM lands,
4 isn't that true?

5 MS. SANDERS: That's my recollection,
6 yes.

7 MR. HARRIS: The High Desert project is
8 located on private lands and not BLM lands, isn't
9 that correct?

10 MS. SANDERS: I don't know.

11 MR. HARRIS: The Beacon project is
12 located on private lands and not on BLM lands, is
13 that correct?

14 MS. SANDERS: Correct.

15 MR. HARRIS: And one more question about
16 the lake and streambed alteration agreements. You
17 said that 1600 deals with the effects on fish and
18 wildlife resources. Can you be specific about
19 which fish and wildlife resources are affected, in
20 your opinion?

21 MS. SANDERS: You mean on the Ivanpah
22 project site?

23 MR. HARRIS: Correct. Yeah, sorry to
24 jump projects on you, yes, Ivanpah.

25 MS. SANDERS: The dry desert washes at

1 the Ivanpah site provide valuable wildlife habitat
2 for desert tortoise, as well. Just because
3 they're dry doesn't mean they don't have
4 significantly more value than the surrounding
5 uplands.

6 Desert washes collect water and keep it
7 longer than other surrounding areas. They have
8 higher diversity and density of annuals, which are
9 important for forage.

10 They provide many beneficial and useful
11 functions for desert tortoise. And that's part of
12 the reason we insisted that there be mitigation
13 for impacts to those desert washes at the Ivanpah
14 site.

15 MR. HARRIS: So, are your recommendations
16 framed primarily around desert tortoise?

17 MS. SANDERS: Wildlife and desert
18 tortoise.

19 MR. HARRIS: Which wildlife in addition
20 to desert tortoise?

21 MS. SANDERS: Do you want a list of
22 species that might --

23 MR. HARRIS: I'd like some specificity,
24 yes. So if you need a minute to pull the FSA out,
25 feel free to do that. I'm wondering precisely

1 which fish and wildlife resources you feel are
2 impacted, triggering 1600.

3 MS. SANDERS: Well, I think the
4 biologist who did the surveys out there, and that
5 was not me, I didn't do surveys out there. But
6 you tend to find higher density and diversity of
7 bird species.

8 You also find burrows in the banks of
9 desert washes. They provide a place to burrow
10 into.

11 MR. HARRIS: I'm sorry, burrows for what
12 particular species?

13 MS. SANDERS: For desert -- I'm sorry,
14 what?

15 MR. HARRIS: For which species, desert
16 tortoise?

17 MS. SANDERS: For desert tortoise.

18 MR. HARRIS: Okay.

19 MS. SANDERS: And other burrowing
20 animals, also. You'll find --

21 MR. HARRIS: Which other burrowing --
22 I'm sorry to keep interrupting you, but which
23 other burrowing animals? I'm really looking for a
24 list of which species --

25 MS. SANDERS: Well, I think --

1 MR. HARRIS: -- you feel are using the
2 desert --

3 MS. SANDERS: -- you might --

4 MR. HARRIS: -- washes to their benefit.

5 MS. SANDERS: I think you will find that
6 wildlife that are wide-ranging like kit fox,
7 coyotes would be using desert washes as a movement
8 corridor.

9 Small mammals. I think you might find a
10 higher abundance in desert washes.

11 Did you want more?

12 MR. HARRIS: If there are more fish and
13 wildlife resources that are using those washes --
14 again, I want to be clear. I'm not asking about
15 what fish and wildlife resources are within the
16 4000 acres. I'm asking about which fish and
17 wildlife resources are using the washes triggering
18 1600.

19 MS. SANDERS: Well, I don't know that I
20 need to come up with a list of specifically which
21 species are going to be using those washes. It's
22 well recognized that desert washes, even though
23 they are dry, support a higher density and
24 diversity of wildlife species.

25 It's not -- I don't know that that's a

1 question of fact that's really at issue. I think
2 it's well accepted that desert washes are very
3 high value to wildlife.

4 MR. HARRIS: Is it as habitat for
5 wildlife or as a means of providing water to grow
6 plants that the wildlife feeds upon?

7 MS. SANDERS: When you say provide
8 water, they hold water for longer periods of time.
9 And so you'll get more vegetation growing there.
10 You'll get more annuals growing there which are
11 important forage for many species.

12 MR. HARRIS: So the benefit is growing
13 vegetables -- growing plants for the species to
14 eat?

15 MS. SANDERS: Well, that's one of many
16 benefits provided by desert washes. I do provide,
17 in the FSA, some more specifics on the values
18 provided by desert washes.

19 MR. HARRIS: Okay. Thank you very much.
20 I have no further questions for the witness.
21 Thank you to the panel for your time.

22 HEARING OFFICER KRAMER: Any redirect?

23 MR. RATLIFF: Yes, briefly. This is to
24 both of my witnesses.

25 //

1 REDIRECT EXAMINATION

2 BY MR. RATLIFF:

3 Q It's not really necessary, is it, for
4 the applicant to actually purchase any land at all
5 to satisfy its obligation under the Energy
6 Commission's condition, is that correct?

7 MS. SANDERS: Is that a question for me?

8 MR. RATLIFF: It's a question for both
9 of you.

10 MS. SANDERS: It's not necessary?

11 MR. RATLIFF: But, I've got your
12 attention so I'm hoping you'll answer.

13 (Laughter.)

14 MS. SANDERS: So what are you asking me?

15 MR. RATLIFF: Does your bio condition 17
16 require the applicant to actually purchase
17 habitat, or can that be purchased by some other
18 entity?

19 MS. SANDERS: Oh, I see what you're
20 getting at. I'm sorry. No. They can provide the
21 funding to do that. Is that what you're asking?

22 MR. RATLIFF: Right.

23 MS. SANDERS: Yes, correct.

24 MR. RATLIFF: So they mainly just
25 provide a security which allows for the purchase

1 of habitat, is that correct?

2 MS. SANDERS: That's an option they
3 have.

4 MR. RATLIFF: Yeah. And does that
5 usually play out over a length of time after the
6 license has been granted in the typical process?

7 MS. SANDERS: I think the verification
8 said that 18 months after the decision there has
9 to be either the purchase or a security --

10 MR. RATLIFF: Okay.

11 MS. SANDERS: -- for the purchase.

12 MR. RATLIFF: Okay. And those purchases
13 are made with collaboration with the other
14 wildlife agencies, is that correct?

15 MS. SANDERS: Yes. Before the purchase
16 is made an acquisition proposal submitted for
17 review by the four agencies.

18 MR. RATLIFF: Thank you. And in your
19 considerations when you consider the kind of
20 mitigation that should be required for this
21 project, did you consider the feasibility of the
22 purchase of mitigation for this project, of the
23 purchase and preservation of additional habitat?

24 MS. SANDERS: You mean in developing the
25 condition were we concerned whether it was

1 feasible or not?

2 MR. RATLIFF: Yes.

3 MS. SANDERS: Oh, yes. In conversations
4 with BLM, Fish and Game, Fish and Wildlife Service
5 Staff that was not a concern.

6 MR. RATLIFF: Did BLM say it would be
7 feasible to buy a significant amount of additional
8 habitat were the money made available?

9 MS. SANDERS: Well, it depends on where
10 you're looking for the habitat. If you're
11 confined to just the Ivanpah Valley, there is not
12 a whole lot of habitat.

13 MR. RATLIFF: Well, what if you looked
14 beyond the Ivanpah Valley?

15 MS. SANDERS: There's ample. There's
16 over a million acres of private lands and critical
17 habitat that could be purchased according to --
18 well, put in the recovery plan, I believe.

19 MR. RATLIFF: And did the sources at BLM
20 that you spoke to agree with this idea?

21 MS. SANDERS: They did.

22 MR. RATLIFF: And what did they suggest
23 was available in the way of habitat if you looked
24 more broadly, for desert tortoise?

25 MS. SANDERS: I'm sorry, I don't

1 understand the question.

2 MR. RATLIFF: What did BLM's
3 representatives tell you about the availability of
4 replacement habitat to offset the impact of this
5 project?

6 MS. SANDERS: Well, they were focused
7 more on things that were close to the Ivanpah
8 Valley, and they mentioned private lands, I think,
9 in the Paiute, Eldorado and perhaps Shadow Valley.
10 But I think most of the acquisitions were
11 elsewhere, were being discussed for satisfying
12 Fish and Game's component for the mitigation.

13 MR. RATLIFF: Okay.

14 MS. SANDERS: Does that answer your
15 question:

16 MR. RATLIFF: I think so. You had a
17 question from the Committee about the number of
18 projects that the Energy Commission is
19 entertaining right now. And about the amount of
20 acreage that might be needed if all of those
21 projects needed to provide habitat.

22 Are some of those projects built on land
23 that will not be in an endangered species habitat,
24 to your knowledge?

25 MS. SANDERS: Absolutely. I think

1 that's the direction everyone's been given, is to
2 look for land that does not have desert tortoise.

3 MR. RATLIFF: There's no requirement
4 that you build your project in an endangered
5 species habitat, is there?

6 (Laughter.)

7 MS. SANDERS: I don't think there is.

8 MR. RATLIFF: And finally, is there
9 anything about desert tortoise habitat on private
10 land that makes it less valuable to the species
11 than whether it's on federal land?

12 MS. SANDERS: No, absolutely not. I
13 think the desert tortoise don't care whose land
14 they're on.

15 MR. RATLIFF: Okay. Thank you.

16 HEARING OFFICER KRAMER: One follow-up
17 question. Reading condition bio-17, and paragraph
18 four, talks about the mitigation security.

19 It says that the -- it has a current
20 amount of 20 million, 400-and-some thousand as
21 the amount of the security.

22 But it says it may be revised on
23 completion of a property analysis record, which is
24 an analysis of the proposed compensation lands
25 that I gather would be determined at some point

1 after certification.

2 Does that mean that the amount could go
3 both up and down? Is that the intention?

4 MS. SANDERS: That's correct.

5 MR. RATLIFF: Commissioners, I neglected
6 to ask one final question that, if you would
7 indulge me, I will --

8 HEARING OFFICER KRAMER: Go ahead.

9 MR. RATLIFF: -- I think won't take too
10 long to answer.

11 One of the issues that was addressed
12 today was the possible presence of the gila
13 monster in this habitat. Could you just tell the
14 Committee a little bit about the difficulties of
15 ascertaining whether or not this is gila monster
16 habitat?

17 MS. SANDERS: In the FSA we assumed that
18 they might be present, but it's hard to prove
19 presence or absence of an elusive rare species
20 like this. There's been 26 records, I believe, in
21 the past 156 years, in California. So it could be
22 there, but it would be hard to prove one way or
23 the other.

24 HEARING OFFICER KRAMER: And then one
25 follow-up to my last question. The \$20-some-

1 million, is that for the two-to-one component, or
2 is that meant to cover three-to-one mitigation
3 requirement?

4 MS. SANDERS: That's two-to-one, that
5 just covers what Fish and Game would normally be
6 asking for.

7 HEARING OFFICER KRAMER: So was a dollar
8 value, if you will, placed on the BLM one-to-one
9 portion?

10 MS. SANDERS: Not in the condition. In
11 the discussion in the FSA we mentioned that BLM is
12 still working out what that fee should be. In the
13 past they've used five -- acre, plus, and I think
14 there's 15 percent on top of 17 percent, other
15 administrative and other fees.

16 But there is no figure given for BLM's
17 per-acre cost.

18 HEARING OFFICER KRAMER: So the
19 intention is for them to work that out with BLM
20 post-certification?

21 MS. SANDERS: I think BLM's working it
22 out, themselves, to have a uniform number to apply
23 to all their projects.

24 HEARING OFFICER KRAMER: So then BLM may
25 apply that when they issue their record of

1 decision?

2 MS. SANDERS: That's my understanding.

3 Is that yours, also?

4 MR. FLINT: Yes. We've had a discussion
5 of the value of the land out there, and there is a
6 letter from BLM attached to the department's
7 letter that we talked from earlier today, that
8 indicates that BLM is revising their -- revisiting
9 their acquisition fee, looking towards using
10 similar to the department on what they've used
11 traditionally, too.

12 It's just that they haven't adjusted
13 that fee from the time the NEMO land was
14 established, to more realistically reflect the
15 actual land acquisition costs out there.

16 So, using similar up-to-date real
17 appraisals of properties that are available now to
18 realize that cost. And the department routinely
19 uses that approach. BLM is looking at that
20 approach to help bring -- again, to help bring
21 things into alignment.

22 HEARING OFFICER KRAMER: Thank you. I
23 didn't intend to open up anything else, but do any
24 of the other parties have any specific questions
25 about that last line of questioning that I engaged

1 in?

2 MR. BASOFIN: Mr. Kramer, I have some
3 recross that was spurred by Mr. Ratliff's
4 redirect.

5 HEARING OFFICER KRAMER: Go ahead.

6 MR. BASOFIN: Okay.

7 RECROSS-EXAMINATION

8 BY MR. BASOFIN:

9 Q Ms. Sanders, you stated there was
10 approximately one million acres of critical
11 habitat, private land in critical habitat for
12 desert tortoise that would be available for
13 acquisition.

14 How much of that land has been
15 determined, through surveys, to be adequate for
16 special status plant species pursuant to bio-18?

17 MS. SANDERS: You asked me how much has
18 been surveyed?

19 MR. BASOFIN: Um-hum.

20 MS. SANDERS: I don't think -- I don't
21 know the answer to that question. I doubt very
22 much.

23 MR. BASOFIN: Do you know if any of that
24 one million acres would be adequate mitigation
25 habitat for special plant species pursuant to bio-

1 18?

2 MS. SANDERS: I don't know the answer to
3 that.

4 MR. BASOFIN: Do you know if any of that
5 one million acres would be suitable mitigation
6 habitat for special status wildlife?

7 MS. SANDERS: I think that's likely,
8 because there's a fair amount of overlap between
9 some --

10 MR. BASOFIN: But there haven't been --

11 MS. SANDERS: -- of the special status
12 species and desert tortoise.

13 MR. BASOFIN: But there haven't been any
14 surveys to indicate that?

15 MS. SANDERS: I don't know of any.

16 MR. BASOFIN: Do you know if that one
17 million acres of private land would be a suitable
18 mitigation habitat for special status bird
19 species?

20 MS. SANDERS: Well, depends which birds.

21 MR. BASOFIN: How about burrowing owl?

22 MS. SANDERS: I think that's very
23 possible. There's quite a bit of overlap with
24 burrowing owl habitat and desert tortoise habitat.

25 MR. BASOFIN: But there haven't been any

1 surveys done to get that?

2 MS. SANDERS: There may have been
3 surveys, I don't know.

4 MR. BASOFIN: But there aren't any
5 included in the FSA, is that right?

6 MS. SANDERS: What's your question?

7 MR. BASOFIN: There aren't any surveys
8 indicating that that one million acres on private
9 land of desert tortoise critical habitat may be
10 suitable for burrowing owl mitigation?

11 MS. SANDERS: I'm getting mixed up.
12 Because the one million that we mentioned is not
13 in the FSA. So, you're asking me -- what are you
14 asking me?

15 MR. BASOFIN: Well, I'll withdraw that
16 last question. So, thanks.

17 MR. HARRIS: I've got recross now. I go
18 last anyway, so, I'll ask.

19 RE CROSS-EXAMINATION

20 BY MR. HARRIS:

21 Q Where did that number come from, the
22 million acres?

23 MS. SANDERS: I think it's actually 1.2,
24 and I think it's from the 1994 desert tortoise
25 recovery plan.

1 MR. HARRIS: Are you aware that there
2 are currently 6.4 million acres of desert tortoise
3 critical habitat?

4 MS. SANDERS: Across the range. I'm
5 talking about California.

6 MR. HARRIS: Okay, 6.4 million. And so
7 as between funding management of that 6.4 and
8 acquiring another 1.2, do you come down on the
9 side of acquiring another 1.2, as opposed to
10 managing the existing 6.4?

11 MR. RATLIFF: Could you restate the
12 question so at least I can understand it?

13 MR. HARRIS: Maybe.

14 (Laughter.)

15 MR. HARRIS: Okay, there's 6.4 million
16 acres of desert tortoise critical habitat
17 currently designated. Do you have that fact in
18 mind?

19 I'll build up to it, how's that?

20 MR. RATLIFF: In totality through all
21 the states.

22 MR. HARRIS: Through all the states,
23 right. You said there's another 1.2 million, is
24 that also throughout all the states, or only in
25 California?

1 MS. SANDERS: I think that's in
2 California. Based on my recollection.

3 MR. HARRIS: Do you want to -- it's an
4 important fact, so your recollection is 1.2
5 million acres in California, or 1.2 million acres
6 across the range?

7 MS. SANDERS: Oh, that's just in
8 California. It's in my rebuttal testimony. I can
9 find it for you if you like.

10 MR. HARRIS: And this is from the 1993
11 desert tortoise recovery plan, is that right?

12 MS. SANDERS: I think so. I think I
13 cited that so we can all pin it down and --

14 (Pause.)

15 MS. SANDERS: Okay, I've found it.
16 According to the 1994 desert tortoise recovery
17 plan, approximately 1,051,500 acres of privately
18 owned land occurs within critical habitat units in
19 California.

20 MR. HARRIS: And that, again, is a 1994
21 plan, not the 2008 draft plan, is that correct?

22 MS. SANDERS: That's right.

23 MR. HARRIS: Okay. My question was, as
24 between better managing the 6.4 million acres and
25 acquiring an additional 1.2, since acquisition

1 seems to be the preferred here, in terms of
2 protection of the species is it better to acquire
3 another 1.2, or to better manage the 6.4?

4 What is your professional opinion on
5 those two choices?

6 MS. SANDERS: I think the question's
7 confusing. Are you asking me to decide if I think
8 it's better to either manage or acquire? I
9 wouldn't make that choice. I would do both.

10 MR. HARRIS: Well, that's the choice
11 we've been given actually, is to acquire. So I'm
12 going to give you the same choice you've given us
13 in your condition.

14 MS. SANDERS: No, the choice in the
15 condition is to do acquisition for two parts, and
16 the remaining one-third of three-to-one, according
17 to BLM, will entirely be management.

18 So it's exactly what the recovery plan
19 recommends, a combination of acquisition
20 enhancement management actions.

21 MR. HARRIS: And that, again, is outside
22 your FSA. Your FSA has the two parts acquisition,
23 talk like we're cooking now --

24 MR. RATLIFF: These questions are
25 argumentative --

1 MR. HARRIS: I want the professional
2 opinion of the witness --

3 (Parties speaking simultaneously.)

4 MR. RATLIFF: You can --

5 MR. HARRIS: And I'll try to restate it
6 so it's not a objectionable --

7 MR. RATLIFF: -- a question, not an
8 argument, please, to the witness.

9 MR. HARRIS: Assume only acquisition,
10 okay. And assume only management. There's 6.4
11 million acres currently. For the benefit of the
12 species would you, if you were the desert tortoise
13 czar, rather have an additional 1.2 million acres
14 of some level of habitat, or would you rather than
15 that money that you would spend on the acquisition
16 spent on managing the existing 6.4?

17 MS. SANDERS: Well, given a choice like
18 that, where the conditions are so odd, I think --

19 (Laughter.)

20 MS. SANDERS: -- I would say land
21 acquisition is what's preferred, because the
22 desert tortoise -- there was an analysis by
23 Boarman and Kristian, and I cite that in my
24 rebuttal testimony, which said of all the
25 management actions, land acquisition -- it deals

1 with many different threats at once.

2 So you can acquire land and you have
3 more control over poaching and ORV use. And you
4 can do weed control.

5 So, in a way acquiring lands gives you
6 opportunities for management actions that you
7 wouldn't otherwise have.

8 Did that answer your question?

9 MR. RATLIFF: I'm sorry, didn't listen.

10 MS. SANDERS: It was such a good answer,
11 too.

12 (Laughter.)

13 MR. HARRIS: You didn't like the
14 question anyway, Dick, so what do you care?

15 HEARING OFFICER KRAMER: In about two
16 weeks he can read it in the transcript.

17 (Laughter.)

18 MR. HARRIS: It was a splendid answer,
19 Susan, thank you for that.

20 I have no further questions.

21 HEARING OFFICER KRAMER: Your rebuttal
22 testimony, I don't think, is in our exhibit list
23 yet. Mr. Ratliff or Mr. Kessler, did you give
24 that a number, by chance, already?

25 MR. KESSLER: We assigned that exhibit

1 305. And what was listed in your pending list
2 here were all the attachments, 305(a) and so on.
3 And what we had included in exhibit 305 was the
4 main body text of rebuttal, which addressed
5 alternatives in biology. And then included these
6 attachments within that same document.

7 HEARING OFFICER KRAMER: Okay, I'll fix
8 that. That answers my question, thank you.

9 MR. KESSLER: Thank you very much.

10 HEARING OFFICER KRAMER: Okay, we are
11 now concluded with staff's panel, thank you. Let
12 me offer to the other parties for your
13 consideration --

14 PRESIDING MEMBER BYRON: Thank you both
15 very much. That was very helpful.

16 HEARING OFFICER KRAMER: -- the option
17 to, this will be the Sierra Club, the Native Plant
18 Society, Defenders of Wildlife, Western Watersheds
19 Project and the Center for Biological Diversity,
20 the option to put on some or all of your
21 witnesses, as a panel, if you find that to be more
22 useful.

23 MR. SPEAKER: (inaudible).

24 HEARING OFFICER KRAMER: Okay, so who
25 will those be from among the list we have, those

1 two witnesses?

2 DR. CONNOR: Michael Connor.

3 MR. BASOFIN: I think it will be Michael
4 Connor sponsored by Western Watersheds and Dr. Ron
5 Marlow sponsored by Defenders of Wildlife.

6 HEARING OFFICER KRAMER: Okay, so the
7 witnesses from the other parties will not be
8 testifying? They might have been on the botany
9 topic. I'm looking at the spreadsheet.

10 MR. SPEAKER: (inaudible).

11 HEARING OFFICER KRAMER: Okay.

12 MS. BELENKY: (inaudible). Since we've
13 already moved a little bit into bighorn, could we
14 do that in the same panel? That might be quicker
15 and we'll maybe get through this by 9:30.

16 MR. RATLIFF: Ms. Belenky has said
17 earlier she has a witness who she only has for
18 today on bighorn sheep.

19 HEARING OFFICER KRAMER: And that's a
20 good reason.

21 MS. BELENKY: Okay, thank you.

22 HEARING OFFICER KRAMER: Okay,
23 certainly. So who would that be, Mr. Jorgensen?

24 MS. BELENKY: Yeah, Mark Jorgensen.

25 HEARING OFFICER KRAMER: Okay, so now we

1 have Mr. Jorgensen, Dr. Connor, and Dr. Marlow, is
2 that correct?

3 If you gentlemen could come up to the
4 panel table.

5 (Pause.)

6 HEARING OFFICER KRAMER: And were both
7 of you gentlemen sworn earlier? Okay.

8 Okay, so among the intervenors, who is
9 going to -- who would like to question first?

10 MR. BASOFIN: I have a direct
11 examination of Dr. Marlow.

12 HEARING OFFICER KRAMER: Okay. For the
13 benefit of the record, if each of you could state
14 your name and spell it for the record. And then
15 we'll begin with Mr. Basofin's examination.

16 I don't think your mic's on.

17 DR. CONNOR: I'm Michael Connor, that's
18 C-o-n-n-o-r.

19 DR. MARLOW: Ron Marlow, M-a-r-l-o-w.

20 MR. JORGENSEN: Mark Jorgensen, M-a-r-k
21 J-o-r-g-e-n-s-e-n.

22 HEARING OFFICER KRAMER: Okay, Mr.
23 Basofin.

24 MR. BASOFIN: Good evening.

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DIRECT EXAMINATION

BY MR. BASOFIN:

Q Mr. Marlow, thank you very much for joining us today to offer your testimony. Have you reviewed your testimony today?

DR. MARLOW: Yes, sir.

MR. BASOFIN: And do you have a true and accurate copy of your testimony?

DR. MARLOW: Yes, sir.

MR. BASOFIN: And do you have any changes or corrections to that testimony?

DR. MARLOW: No, sir.

MR. BASOFIN: Okay. Mr. Marlow, could you summarize your qualifications?

DR. MARLOW: I've a bachelors degree and a PhD in zoology from the University of California at Berkeley.

I began working on desert tortoises as an undergraduate project in 1968, and finished my dissertation also on desert tortoises in 1979.

I have worked throughout the southwest on a variety of desert tortoise ecological and conservation projects. I've worked for the California Department of Fish and Game as a seasonal aide when I was a graduate student on

1 desert tortoises and other reptile and amphibian
2 endangered species in California.

3 And I've worked on other species of
4 tortoises throughout the world, but desert
5 tortoises in central Asia and parts of the
6 Mediterranean area.

7 MR. BASOFIN: Thank you.

8 HEARING OFFICER KRAMER: Mr. Basofin,
9 I'm having trouble finding his testimony on the
10 exhibit list. It may just be the labeling. Which
11 exhibit is that?

12 MR. BASOFIN: I'm not sure what it was
13 labeled. It was subitted as rebuttal testimony on
14 January 4th.

15 HEARING OFFICER KRAMER: Okay, then it's
16 probably not on the list yet. That's my problem.

17 MR. BASOFIN: Okay. Mr. Marlow, are you
18 familiar with the area where the project is
19 proposed to be sited?

20 DR. MARLOW: Yes, I am.

21 MR. BASOFIN: Can you talk a little bit
22 about your familiarity with the area.

23 DR. MARLOW: The area where the project
24 is proposed is in the Ivanpah Valley. Currently I
25 reside in Las Vegas and I've been active in

1 southern Nevada. The Ivanpah Valley extends up
2 into southern Nevada, and is part of tortoise
3 management areas that I have been involved in.

4 So I have regularly visited the southern
5 end of the Ivanpah Valley in Nevada, which would
6 be right around stateline. And I've also worked
7 down into the California portions of the Ivanpah
8 Valley.

9 I've done some tortoise density
10 transects as a function of distance from highway
11 on a highway project. I did, with my wife, some
12 years ago. So I'm familiar with the area.

13 It is also along the route that I
14 normally travel to get to the southernmost part of
15 southern Nevada's tortoise areas in Paiute and
16 Eldorado Valley.

17 So we regularly exit Nevada and drive
18 through California to get into the southern part
19 of Nevada.

20 MR. BASOFIN: Thank you. And have you
21 been involved in any management type processes in
22 the area?

23 DR. MARLOW: Yes. Clark County Desert
24 Conservation Program has a very large and active
25 tortoise research and management program going on

1 throughout southern Nevada, and areas adjacent to
2 the Ivanpah Valley and the northern part of the
3 Ivanpah Valley.

4 We have been involved in monitoring the
5 impacts of roads, on I-15 and other highways that
6 travel across the state line. The Nipton Road
7 that goes from Searchlight to Nipton, California
8 is another of -- and Nipton is in the central part
9 of the Ivanpah Valley.

10 And we have done studies on the impacts
11 of traffic on those roads, in addition to doing
12 the Nevada part of Fish and Wildlife Service
13 rangewide monitoring program.

14 MR. BASOFIN: Thank you. And when was
15 the last time you visited the proposed project
16 site?

17 DR. MARLOW: I was there yesterday.

18 MR. BASOFIN: Okay. Mr. Marlow, could
19 you please briefly summarize your testimony.

20 DR. MARLOW: My testimony was in
21 rebuttal, and it dealt primarily with areas that I
22 felt were deficient in the material that were
23 provided by the applicant, primarily in the areas
24 of the status of the existing tortoise population
25 or populations in Ivanpah Valley and on the

1 potential impacts to that population and to the
2 population throughout that part of the recovery
3 unit.

4 So, specifically I was concerned with
5 the failure to deal in a meaningful way with
6 cumulative impacts. We already know that there
7 are a number of existing impacts that have
8 resulted in significant declines in the Ivanpah
9 tortoise populations over the last 30 or so years.

10 The major impacts there being the
11 highway, the construction of the golf course, the
12 expansion of the gambling establishments on the
13 Nevada side, and the subsequent traffic due to
14 recreation and other random and uncontrolled uses.
15 In addition to some organized off-road events that
16 are held on both sides of the stateline there.

17 Those being the current impacts, and
18 that population having experienced a significant
19 and dramatic decline, anticipating other large or
20 linear impacts such as this project and other
21 proposed projects, would provide sufficient
22 opportunities to deal in a quantitative way with
23 the impacts. And I thought that was significant
24 in its absence from the analysis.

25 I thought that the treatment of the

1 genetic distinction found in that particular part
2 of the recovery unit was inadequate. I think that
3 some of what we know about the genetics is fairly
4 recent. But we have known that that area was
5 different anatomically and behaviorally for some
6 time. So I thought a better treatment of that
7 concern would have been appropriate.

8 I think that the materials that I had
9 available to me did not describe in enough detail
10 what the direct impacts of the project would be.

11 And I think that Commissioner Boyd made
12 a very pertinent point about allowing the edges to
13 be soft. And I think that was both germane and
14 cruel in its directness. I think that sort of
15 consideration of alternatives would have been
16 appropriate and more consistent with reducing the
17 direct impacts.

18 So, overall, my testimony dealt with
19 some of the specific deficiencies I felt were
20 glaring in the materials presented by the
21 applicants.

22 MR. BASOFIN: Thank you. I have just a
23 few more questions for you. Regarding surveys,
24 appropriate surveys, in your professional opinion,
25 Mr. Marlow, what is the preferred method for

1 measuring the number of desert tortoises on a
2 site?

3 DR. MARLOW: I'm sorry to be -- to
4 stutter here about this. Much of my professional
5 career over the last 15 years has been directed at
6 trying to improve methods for counting tortoises.
7 And I have to digress a little bit here.

8 People who have not counted tortoises
9 before can't appreciate how difficult it is, and
10 there's no amount of hand-waving that I can do to
11 convince you otherwise. But people who count
12 animals or trees for a living, people who count
13 elephants, miss elephants. It may be hard to
14 credit that, but people counting elephants miss
15 them.

16 Desert tortoises are available to be
17 seen on the surface during daylight hours less
18 than 1 percent of the time. And they look like
19 rocks and there are lots of vertical obstructions
20 in the desert behind which tortoises can hide.

21 So, we have styrofoam tortoises that we
22 train people to hunt tortoises with. And we know
23 for a fact that well-trained tortoise surveyors
24 will step over a tortoise and not see it. We have
25 lots of data to support that.

1 That being a function of limitations in
2 human observers. We have to build that into a
3 method for developing a precise and accurate
4 estimate for the numbers of tortoises. And this
5 is extremely difficult. And we have very bright
6 and very aggressive statisticians who are on us
7 all the time.

8 We are unable to provide a good estimate
9 for the number of tortoises in a valley with any
10 greater precision than about 10 percent. And that
11 would cost about a million dollars.

12 So we spend about a million dollars
13 every year surveying for tortoises throughout the
14 range. And 10 percent error rate will allow us to
15 detect a trend in about 50 years.

16 So we have worked hard to reduce that
17 error rate by a few percent each year by
18 developing better techniques, better training. But
19 nonetheless, the state of the art at this present
20 time is the best way to count tortoises still
21 gives you a relatively high error rate at
22 relatively great cost.

23 So, to answer your question, what would
24 be the preferred method, the preferred method
25 would be to estimate the number of tortoises in a

1 very small area. Because when the area gets
2 large, the cost gets great, and the error gets
3 very large.

4 So initially when tortoise monitoring
5 first started 35 or 40 years ago, it started with
6 single square-mile plots. And people would simply
7 walk up and down and count all of the tortoises
8 the first time through and mark them.

9 And then they would go back a second
10 time and count all of the tortoises and mark the
11 ones that they had missed.

12 And the ratio the second time of
13 tortoises that they had seen before and tortoises
14 that they hadn't seen before would allow them to
15 estimate the number of tortoises in that area.

16 That's a pretty good way of estimating
17 tortoises. It's simple and it's straightforward,
18 but it still is pretty expensive. It costs about
19 \$30,000 or \$40,000 to do that on one square mile.

20 So, I don't have a good answer for you.
21 And I'm sorry. I've wasted a lot of money.

22 (Laughter.)

23 MR. BASOFIN: Thank you. Also regarding
24 surveys, how does the protocol season, the absence
25 or occurrence of a survey during the protocol

1 season affect the accuracy of the number of
2 tortoises counted?

3 DR. MARLOW: My colleagues in USGS have
4 been working on how to define exactly when the
5 best season for looking for tortoises is. Getting
6 -- and that is when most of the tortoises are on
7 the surface most of the time during the day.

8 And historically we thought that that
9 was April through June or July. Early in April,
10 some of the population. The middle of the spring,
11 most of the population. And tapering off, not so
12 many in June.

13 But it turns out it's actually a much
14 narrower window. The best time to find the most
15 number of tortoises on the surface in and around
16 Ivanpah area, Las Vegas, that part of the range,
17 is about two weeks in late April and early May.
18 That's when our colleagues tell us we should be
19 doing tortoise surveys all over the desert.

20 Generally we hire about 40 or 50 people
21 to do these transects, and we spread that labor
22 out over about four months. We would need to hire
23 trained tortoise biologists, 200 or 300, for about
24 a two-week period. They don't exist.

25 So, the best time to look for tortoises

1 if you were looking for the lowest variability,
2 the most precision, would be a two- or three-week
3 period in late April and early May.

4 MR. BASOFIN: Thank you. In the
5 applicant's testimony it states that the Ivanpah
6 SEGS project is not located within the 6.4 million
7 acres of desert tortoise critical habitat, and is,
8 by no means, in an area critical to the survival
9 of the species.

10 Can you evaluate that statement in your
11 professional opinion?

12 DR. MARLOW: Critical habitat was a
13 federal designation. The process of coming up
14 with the boundary lines for critical habitat
15 started in several small rooms agency and other
16 tortoise biologists started marking on maps.

17 And the final designation was a
18 political process within the Fish and Wildlife
19 Service for what initially got proposed.

20 Critical habitat was then further
21 reduced as a result of land management actions
22 formalized into management plans either
23 designation as areas of critical environmental
24 concern, which is the way the BLM and some of the
25 other interior agencies would provide the

1 protections required for critical habitat.

2 Or in the case of national parks or
3 state parks that were cooperating through their
4 management plans.

5 So, saying that it's not in critical
6 habitat doesn't mean a whole lot with respect to
7 the importance of that particular population for
8 recovery. So critical habitat is just a
9 management classification.

10 The importance of any particular
11 population for recovery depends on a lot of
12 factors, but what we know about this particular
13 population, it has the highest level of genetic
14 differentiation of all of the populations in that
15 part of the range.

16 What we also know is that the remaining
17 tortoises in Ivanpah Valley are in a relatively
18 small area of the valley. Big portions of the
19 valley we only find carcasses. So we have had
20 tortoise transects run throughout the valley and
21 big portions of the valley only have dead
22 tortoises.

23 So we know that it's experienced a
24 significant decline. Now that we didn't find any
25 live tortoises don't mean there aren't live

1 tortoises there. But we do know when we find dead
2 tortoises that they have died recently, because
3 the tortoise carcasses don't persist for more than
4 five or ten years. So the presence of lots of
5 dead carcasses is evidence of a significant
6 decline.

7 Our inability to detect live tortoises
8 means that there are a lot fewer there than the
9 200 to 300 per square mile that were measured
10 there in the '70s.

11 So, the remaining tortoises there are
12 very important if we're going to recover that
13 population at all. We certainly won't recover it
14 if they are fragmented to the point where they are
15 no longer viable.

16 Tortoises will live a very long time.
17 The last tortoise in the Ivanpah Valley might die
18 100 years after the population is no longer
19 viable. But if there are too few tortoises, or
20 they're too far separated from each other, then
21 it's no longer a viable population.

22 So I think it's important because
23 they're still there. It's important because
24 they've been identified as such. We know that
25 they are unique in some aspects of their genetics.

1 And they certainly are deserving of preservation.

2 MR. BASOFIN: Thank you. And just one
3 final question. In your testimony you mentioned
4 that the proposed mitigation is inadequate to
5 address the project's cumulatively significant
6 impacts.

7 Can you elaborate a little bit about the
8 cumulative impacts in the area and this project's
9 likely cumulatively significant contribution?

10 DR. MARLOW: I mentioned earlier that I-
11 15 creates a significant impact. We've detected a
12 decrement in the number of tortoise sign, or the
13 amount of tortoise sign, out to five kilometers
14 from I-15.

15 We are pretty confident that the
16 description that many who have preceded me have
17 provided of the quality of the vegetation in that
18 valley makes it potentially very valuable tortoise
19 habitat. They've described it as relatively
20 unimpacted.

21 So lots of really good potential habitat
22 is not occupied by tortoises because of the
23 impacts of the existing road. And that extends
24 out as much as five kilometers on either side.

25 That's a linear impact that bisects the

1 valley. To the extent that we're going to have a
2 project then extending off at an angle to I-15
3 simply provides another division to the habitat.
4 So it becomes a pie that you're taking pieces out
5 of.

6 And eventually whatever value a large
7 piece of land might provide to a species like
8 desert tortoises, which ranges over relatively
9 large area, which experiences localized
10 extinctions and fluctuations of population by
11 losing the connectiveness is pretty direct.

12 We're going to have local extinctions,
13 and that's a natural part of what happens in an
14 unimpacted basin due to localized rainfall or
15 localized droughts.

16 If we eliminate the possibility that the
17 areas where tortoises have declined or died out
18 can be recolonized, then we're eventually going to
19 lose all of the tortoises in the valley.

20 So linear impacts are more pervasive
21 than very localized impact. Placing two linear
22 impacts up against each other would make more
23 sense. It reduces the edge over which that impact
24 is expressed in the population.

25 I don't know if that --

1 MR. BASOFIN: Yeah, that's great. Thank
2 you very much. Make the witness available for
3 cross.

4 HEARING OFFICER KRAMER: Well, actually
5 we'll -- let's have each of the panelists make
6 their direct testimony first, and then we'll open
7 it all up. I think it'll be more efficient for
8 each of you to question them in a group.

9 So who is going to sponsor Dr. Connor?

10 DR. CONNOR: I think Josh.

11 MR. BASOFIN: Good evening, again.

12 DIRECT EXAMINATION

13 BY MR. BASOFIN:

14 Q Mr. Connor, have you reviewed your
15 testimony today?

16 DR. CONNOR: I have.

17 MR. BASOFIN: And do you have a correct
18 and accurate copy of your testimony today?

19 DR. CONNOR: I believe so, yes.

20 MR. BASOFIN: Do you have any
21 corrections for your testimony?

22 DR. CONNOR: No significant corrections,
23 a couple of typos.

24 MR. BASOFIN: Okay. Mr. Connor, will
25 you please summarize your qualifications.

1 DR. CONNOR: Yeah, I have a bachelor of
2 science degree, combined honors in biology and
3 chemistry. I have a PhD in metabolic biology. I
4 did research at UCLA for about 17 years, and with
5 the Veterans Administration Agent Orange
6 Laboratory in Westwood.

7 In 1988 -- getting really old -- sorry,
8 1998 I became the Executive Director of the Desert
9 Tortoise Preserve Committee, which is an
10 organization that acquires habitat and develops
11 preserves throughout areas of the desert in
12 California.

13 It works with a number of state
14 agencies. It actually has worked with CEC and
15 with California Department of Fish and Game,
16 actually helping to facilitate developers find
17 replacement habitat and so on.

18 When I was working for the preserve
19 committee I was involved in a large number of
20 things. It's a small organization, so I got to do
21 most activities that the organization did. From
22 developing management plans to supervising
23 biologists in the field doing surveys.

24 And the preserve committee also did --
25 worked on developing mitigation strategies and

1 preserves for other species like Mojave ground
2 squirrel. And we also did rare plant surveys,
3 things like harvest milfitch (phonetic), that kind
4 of thing.

5 Three years ago I became the California
6 Director for the Western Watersheds Project, which
7 I currently still am. What I do for the Western
8 Watersheds Project is I'm involved in wildlife
9 issues, looking at endangered species issues,
10 preparing listing petitions and doing National
11 Environmental Policy Act analysis of decisions
12 affecting public lands. Those are the activities
13 that I do.

14 DR. CONNOR: Thank you.

15 HEARING OFFICER KRAMER: By the way, his
16 testimony is exhibit 516, is that correct?
17 Rebuttal testimony of --

18 DR. CONNOR: Yes.

19 HEARING OFFICER KRAMER: Is that what it
20 was entitled, rebuttal testimony of Western
21 Watersheds Project?

22 DR. CONNOR: I think so.

23 MR. BASOFIN: Mr. Connor, are you
24 familiar with the area where the project is
25 proposed to be sited?

1 DR. CONNOR: Yeah, I'm familiar with the
2 area. I visited the actual project site a couple
3 of times. I've visited the area many many times.
4 I visit a lot of the desert. I've visited almost
5 all the desert wildlife management areas for
6 desert tortoise, most of the critical habitat
7 units.

8 The Desert Tortoise Preserve Committee
9 actually owns a parcel of land just down the
10 street, just down Nipton Road on the other side of
11 the freeway. And I've actually visited the site
12 just to check on that parcel of land.

13 The last time I visited the project area
14 was on New Years Eve of last year. I was there on
15 January 30th -- sorry, December 30th and 31st.

16 MR. BASOFIN: Thank you. Mr. Connor,
17 will you please summarize your testimony.

18 DR. CONNOR: Yeah, I actually have a
19 PowerPoint presentation. Do we want to go ahead
20 and do this? It's going to be very short,
21 basically I'm just showing exhibits.

22 HEARING OFFICER KRAMER: Certainly.
23 There's a microphone up at the podium that you can
24 use.

25 DR. CONNOR: Okay.

1 MR. HARRIS: To be clear, these are
2 exhibits, they're not new documents?

3 DR. CONNOR: They're all my exhibits.
4 There's one page for one of yours.

5 MR. HARRIS: Well, that one's correct.

6 (Laughter.)

7 PRESIDING MEMBER BYRON: And you're
8 going to want to make sure you're speaking into a
9 microphone, Dr. Connor, and say that on the
10 record.

11 DR. CONNOR: Okay.

12 (Pause.)

13 DR. CONNOR: The first map here is a map
14 from the 1994 desert tortoise recovery plan. Do
15 we have sort of a pointer? No? Anybody have a
16 pointer? Oh, the mouse? Okay, great idea, great.
17 Thank you.

18 Okay, that area there, there's the 15
19 freeway going down. This boundary here is the
20 boundary of the northeastern Mojave recovery unit
21 that we've been hearing so much about today. And
22 you can see where it sweeps down in California
23 there.

24 That area there is the north Ivanpah
25 Valley on the north side of the I-15 freeway. And

1 then down here we have the southern Ivanpah
2 Valley. So that's the area that we've been
3 talking about.

4 And quite clearly in the 1994 desert
5 tortoise recovery plan it was part of the proposed
6 DWMA.

7 Okay. All right. This is a map from
8 the 2008 draft revised recovery plan, which
9 basically shows the same area again. I just
10 wanted to show this because it is still basically
11 the outline of the recovery plan. This time
12 they've used different colors because, you know,
13 this is 2008 now, and not 1994 when everything was
14 in black and white.

15 Here's the boundary of the recovery unit
16 again, that purple line. We have the 15 freeway
17 coming down there. And you can see the Ivanpah
18 area is there.

19 Now, this map, actually the green areas
20 that are on this map are desert tortoise habitat
21 as identified by the USGS habitat model. This is
22 actually referenced in the staff's rebuttal
23 testimony, which is why I wanted to show this
24 graph, so you get an idea.

25 There are, you know, sort of better ways

1 of plotting desert tortoise habitat these days
2 than we had back in 1994. But the point of me
3 showing this graph was basically the outline of
4 the recovery unit as far as it comes down to
5 California is basically that.

6 You frequently see maps where, in fact,
7 the recovery unit boundary goes along I-15. Now,
8 if you go down I-15 that's clearly not the
9 boundary of the recovery unit. That's the bottom
10 of the valley. And, you know, that's not going to
11 stop tortoises moving backwards and forwards.

12 The boundary of the recovery unit is the
13 mountains that go around the valley. So we have
14 the Clark Mountains on the west side. We've got
15 the Ivanpah Mountains and we have the New York
16 Mountains. And that's why the northeastern Mojave
17 recovery unit tortoises can find the Ivanpah
18 Valley in California.

19 Okay, one of the issues I'd raised was
20 that the PSA, the EIS, did not even specify the
21 acreage of the amount of desert tortoise habitat
22 in the recovery unit in California. And so this
23 is just a map that I submitted as part of my
24 testimony.

25 This is a polygon; that's the orange

1 shape that is available in the California National
2 Diversity Database. It, you know, provides the
3 area of the desert tortoise. So the amount of
4 habitat in that area.

5 The total acreage inside that orange
6 line there is about 188,000 acres. That's the
7 extent of the recovery unit in California. It's
8 not an accurate depiction of the amount of desert
9 tortoise habitat in there, because quite clearly
10 it includes the freeway, I-15 freeway. It
11 includes Nipton; it includes the roads; it
12 includes Ivanpah Road coming down here, too. It
13 includes the golf course up here. There are a lot
14 of impacts in there that clearly not desert
15 tortoise habitat. It does exclude most of the
16 lake bed. I mean they at least did eliminate
17 that.

18 But I think this forms a sort of useful
19 basis for describing the amount of desert tortoise
20 habitat in the California section of the recovery
21 unit, though it could be easily refined. And, you
22 know, you could have the USGS model rolled into
23 it, which I think CEC Staff are actually using
24 now.

25 One of the issues that also concerns me

1 is the importance of the northeaster Mojave
2 recovery unit as far as its contribution to the
3 overall gene pool in California.

4 And I included a number of references
5 from the literature as exhibits. The first one of
6 these was a paper by Tripp Lamb that was written
7 back in 1986. And taking a quote out of that, he
8 says, "The Ivanpah population appears to be
9 distinct assemblage, differing from other
10 California populations in its matriarchal
11 genealogy."

12 Now, the reason I quoted this is because
13 this is one of the first studies in which people
14 actually looked at genetic material from desert
15 tortoises. And, you know, so right from the get-
16 go one of the first papers on desert tortoise DNA
17 identified the Ivanpah population as being very
18 different in California.

19 That's not a new thing. This isn't
20 something that's just blown up overnight. We've
21 known about this for a long time.

22 This is a map from a paper, again by
23 Tripp Lamb. This is basically the more final
24 study that was published back in 1989. And what
25 this map shows is it shows the distribution over

1 the range of the tortoise of closely related
2 assemblages, genetic assemblages.

3 And these circles and groups of
4 assemblages were actually used in the formulation
5 of the recovery plan -- sorry, the recovery units
6 that you see in the recovery plan.

7 It's this sort of data that was the
8 basis for those ESUs that we've heard about today.
9 These evolutionary significant units. And, again,
10 that little spot there that's all on its own,
11 surrounded by little circle, that's the Ivanpah
12 tortoises, where they come into California. And
13 then this population of tortoise is the one that
14 became the northeastern Mojave recovery -- the
15 northeastern Mojave ESU.

16 And finally, as far as these genetic
17 studies are concerned, I wanted to show this chart
18 from the most recent published genetic study.
19 This is a paper by Bob Murphy that appeared in the
20 end of 2007.

21 And this is one of the figures from Bob
22 Murphy's paper. What he does in this figure is
23 basically just plot the genetic distances. That
24 is basically how different the different
25 populations in California are from each other.

1 The scales are relative. You know,
2 these are not actually -- these are relative.
3 It's just basically how, you know, if you get a
4 group of these things that are related, how far
5 apart are they, you know. That's the way it's
6 looked at.

7 He actually looked at all six recovery
8 units. There are six recovery units for the
9 desert tortoise, six ESUs recognized. Only five
10 of those occur in California.

11 And this over here is the northeastern
12 Mojave ESU. These are samples from the Ivanpah
13 Valley. That's where the sampling was done.

14 And the only other population of
15 tortoise is still Mojave tortoise that was more
16 different than the northeastern Mojave population
17 was from the other populations. These are all in
18 California -- sorry. How do I go back?

19 (Pause.)

20 DR. CONNOR: Okay, these are all the
21 other California populations. We have the
22 northeastern Mojave population. Then over here we
23 have a population up in Utah, which is on the
24 other side of the Virgin River.

25 So, clearly, the northeastern Mojave

1 desert tortoise population in California is very
2 different from the other tortoises.

3 And that's part of the reason why we've
4 been so concerned about recognizing the potential
5 value of the genetic contribution of this
6 population to the entire population in California.

7 And finally, I just wanted to show a
8 couple of pictures of attempts to determine the
9 number of tortoises in the area. This map here
10 was developed, I think the data was collected
11 around about '78, '79, that was the time period.

12 It was collected by Dr. Christine Berry
13 when they were developing the original version of
14 the California Desert Conservation Area Plan.

15 And the map here, this is I-15 going up
16 here. And this is the Ivanpah Valley here. And
17 you can see the distribution of tortoises shown
18 here. In the south end of the valley there was a
19 fairly dense tortoise population, which Dr. Berry,
20 I believe, had said went from between 50 and 100
21 tortoises per square mile. And then we have
22 lesser densities around that.

23 It's because the number of tortoises was
24 so high on the west side of I-15 there, as well as
25 on the east side, that this whole area was then

1 subsequently designated as category one habitat
2 later on.

3 And fortunately what we do know is that
4 the study part here, down in the south end of the
5 valley, there was some kind of population crash.
6 Possibly due to drought. It could be other
7 causes. There is some evidence that tortoises in
8 that area suffer from a shell disease for example.

9 And so the current level of -- current
10 distribution of abundance of tortoises in the
11 valley is large unknown. We just don't know what
12 it is.

13 We had some discussion earlier today
14 about this particular table, which was table 5
15 from this document in which reported survey
16 results on desert tortoises. It was a desert
17 tortoise survey in the translocation-relocation
18 areas to the west of the project.

19 And as we discussed, these numbers seem
20 to be in error. It was some kind of mistake in
21 those.

22 The reason I wanted to show this is
23 because this is the only data I've seen in the
24 documents to date in which they actually attempt,
25 or anybody actually attempts to determine what the

1 actual abundance of tortoises is on the site.

2 Now, just because 10 tortoises or 50
3 tortoises or 90 tortoises is seen in an area that
4 does not tell you that's how many tortoises are
5 there. You need to do some kind of real, you
6 know, scientific estimate of the abundance.

7 And one thing I did do while I was
8 sitting there watching the other presentations was
9 using the corrected values, assuming that the
10 little conference that we had earlier did get the
11 values in the right order this time, and I
12 recalculated what the tortoise density was per
13 square kilometer, and per square mile for those of
14 you who are metrically impaired.

15 And the number of tortoises per square
16 kilometer on the Ivanpah 1 site was 2.9. On the
17 Ivanpah 2 was 1.74. And on Ivanpah 3 was 2.6.
18 And that translates into, per square mile, into
19 7.5 per square mile for Ivanpah 1, 4.5 per square
20 mile for Ivanpah 2, and 7.7 per square mile for
21 Ivanpah 3.

22 In the most recent Fish and Wildlife
23 Service regionwide desert tortoise survey, the
24 2007 survey which was published this year, the
25 estimate for the conservation areas within the

1 northeastern Mojave recovery unit was 1.7
2 tortoises per square kilometer.

3 So, clearly, the tortoises on this
4 particular site, assuming that this data is
5 correct, indicates that the tortoise number on the
6 project area is at average or above average over
7 most of the project site.

8 It's not a low number of tortoises.
9 It's at least, at the very minimum, an average
10 number for the recovery unit.

11 And given that this is not within a
12 conservation area, the other numbers were
13 determined in conservation areas, inside DWMA
14 themselves, I think it's indicative of how
15 important that particular area is.

16 Okay, that was it for the PowerPoint.

17 HEARING OFFICER KRAMER: Do you have
18 more other testimony, though?

19 DR. CONNOR: No, I think that's it.

20 MR. BASOFIN: Mr. Connor, if you'll
21 recall I have one more question for you. By the
22 way, I should correct myself, Dr. Connor.
23 Apologize.

24 Dr. Connor, in your opinion, are desert
25 tortoises located in the north Ivanpah Valley

1 isolated from desert tortoises south of the
2 interstate?

3 DR. CONNOR: You know, that's an
4 interesting question. This has been mentioned
5 several times today. We have a situation where we
6 do, indeed, have a freeway running down the
7 valley. And there's absolutely no doubt that that
8 freeway causes fragmentation of the habitat. It's
9 not easy for a tortoise to run across that
10 freeway, that's for sure.

11 However, there's a number of factors
12 that fortunately help nullify that situation.
13 First of all, there are ways tortoises can get
14 across the freeway barrier without going across
15 the freeway. They can walk under it. There are a
16 couple places, at least, that I know of where they
17 can go underneath.

18 They can go under at Ivanpah Ditch,
19 which is at the sort of north end. And then they
20 could even cross at Yates Road, those areas. So
21 there are certainly places where tortoises can go
22 across the I-15.

23 The other thing is that my understanding
24 is that I-15 was constructed in the early '60s. I
25 think it was finished in like '64 or so. So it

1 was constructed in the early '60s.

2 Desert tortoises have a generation time
3 of about 20 years.

4 (Telephone interruption.)

5 DR. CONNOR: Further question? Desert
6 tortoises have a generation time of about 20
7 years. So since the freeway has been constructed,
8 there have been literally a couple of tortoise
9 generations since that time.

10 So although the freeway, itself, may
11 have had an impact on the number of tortoises
12 around the freeway, because it's a sink, it's not
13 going to have disrupted like the gene flow in the
14 area or changed the characteristics of the
15 population at all.

16 There's just simply not enough time. It
17 would take literally centuries before you would
18 see a difference across the freeway. Just simply
19 because of the generation time for the species.

20 So there are some impacts from the
21 freeway, but they're quantitative not qualitative.

22 HEARING OFFICER KRAMER: Dr. Marlow, I
23 think, suggested that the freeway had a much more
24 significant effect on the tortoises that he's
25 observed already. Can you reconcile what you just

1 said with what he said?

2 DR. CONNOR: Yeah, it's a qualitative
3 versus quantitative difference. What happens with
4 a freeway or a road, doesn't have to be just a
5 freeway, it can be a road, too, is that it
6 decreases the number of tortoises in the immediate
7 vicinity. And the reason for that is because
8 sooner or later the tortoise ends up on the road
9 and gets killed.

10 So there's a sink effect. You know,
11 tortoises keep going in from further and further
12 away. And then you have this area around the side
13 of the road, where there are fewer and fewer
14 tortoises.

15 But some of those tortoises still get
16 across there. So, the tortoises on either side
17 away from the road basically remain heterogenous.
18 They don't sort of, you know, become so isolated
19 from each other that they, you know, they're
20 becoming different. They're still the same. It's
21 just that they have this reduced density area in
22 between.

23 And what's happening at Ivanpah is that
24 Caltrans has agreed to put desert tortoise barrier
25 fencing finally along both sides of the fence.

1 And that will effectively open up all that habitat
2 to desert tortoise and reduce that issue.

3 But it will still allow tortoises to
4 move underneath the freeway.

5 HEARING OFFICER KRAMER: Do you feel
6 that they would benefit from more places in which
7 they could move under the freeway? Is that an
8 important consideration?

9 DR. CONNOR: I think that might be, you
10 know, something worth exploring. When I was with
11 the Desert Tortoise Preserve Committee, one of the
12 projects we worked on was the Harper Lake Road
13 plan, which has been mentioned several times
14 today, the LUZ plan.

15 One of the things we did was install a
16 culvert underneath Harper Lake Road where we'd
17 installed tortoise barrier fencing. Culverts have
18 been installed in a number of places. The trick
19 is to get the tortoises to use them.

20 HEARING OFFICER KRAMER: Okay. Before
21 we start opening the panel to questioning, we will
22 allow Mr. Jorgensen -- for his direct testimony to
23 be offered by Ms. Belenky, I presume.

24 MS. BELENKY: Thank you, yes. Good
25 evening.

1 //

2 DIRECT EXAMINATION

3 BY MS. BELENKY:

4 Q Mark, I'm just going to ask you a few
5 questions about adopting your testimony. And then
6 you could give a brief summary if you'd like.

7 Did you prepare the written testimony
8 that was submitted to the Commission?

9 MR. JORGENSEN: Yes, I did.

10 MS. BELENKY: And do you have any
11 additions or corrections at this time? We don't
12 have a number yet. I will make sure we do that
13 tomorrow on all our exhibits.

14 MR. JORGENSEN: No, I do not.

15 MS. BELENKY: Okay. Do you adopt this
16 testimony at this time?

17 MR. JORGENSEN: Yes.

18 MS. BELENKY: So we'll move that the
19 testimony be admitted into evidence. And I didn't
20 understand that all the testimony needed, in
21 addition, exhibit numbers. So we will definitely
22 clear that up tomorrow.

23 So, could you summarize very quickly
24 your background?

25 MR. JORGENSEN: I recently retired as

1 the Superintendent of Anza-Borrego Desert State
2 Park, which is the largest state park in the lower
3 48 states. It's about 1000 square miles in size.

4 I worked for State Parks for 37 years.
5 I began my career working in the field studying
6 bighorn sheep as a seasonal biologist. And I went
7 up through the ranks as a ranger and a naturalist
8 and a state park resource ecologist and
9 environmental scientist. And then as a state park
10 superintendent.

11 I've worked on bighorn sheep since the
12 1960s. I've been very active in the Desert
13 Bighorn Council, been on their technical staff for
14 20 or 25 years. And been the chairman of that.

15 And so have listened to hundreds of
16 technical papers given throughout the western U.S.
17 and Mexico on bighorn sheep issues.

18 And have conducted many hundreds of
19 hours of helicopter surveys, sheep captures, radio
20 collaring efforts, disease work. Conducted on-
21 the-ground surveys. We have the longest
22 continuous water hole survey in Anza-Borrego.
23 It's been going on every year, every 4th of July
24 since 1971, collecting huge datasets.

25 Worked with a lot of researchers, a lot

1 of students, a lot of professors, working on
2 bighorn and mountain lion and deer issues.

3 Most recently I've been assisting with a
4 project in the Gobi Desert in Mongolia. We've
5 developed a sister park relationship in a large
6 part to help protect the Argali Sheep, which is a
7 very close relative of our desert bighorn.

8 MS. BELENKY: Thank you. And I think,
9 just given the lateness of the hour, rather than
10 go through every question I wrote up, I would just
11 like to ask you generally, from your experience
12 working with bighorn sheep, the kind of habitat
13 here.

14 We know that the two mountain ranges are
15 occupied by bighorn. Do you believe that the kind
16 of habitat here in the valley is likely to be used
17 by bighorn?

18 MR. JORGENSEN: I would think the
19 alluvial fans would be used seasonally as a food
20 source for foraging, especially during drought
21 periods when we find extended droughts really
22 desiccate a lot of the plant life in the
23 mountains. And a little bit of rain comes along.

24 We find that these dry streambeds that
25 Ms. Sanders was referring to actually channel the

1 water down out of the mountains. We find these
2 green rivulets that extend far out away from the
3 mountain.

4 And we find that bighorn sheep will get
5 down on those alluvial fans at certain times,
6 certain key periods of their life history when
7 they need to find high quality forage. Especially
8 females with lambs. And they will venture out a
9 mile or two miles from the mountains.

10 And from what I see of the lay of the
11 land up there, and it's known in the literature
12 and in science, that bighorn rams will move from
13 one mountain range to another.

14 The take-home message on that is if they
15 can see a mountain range eventually they will find
16 a way to get to it.

17 And so we've talked a lot about
18 connectivity of various animal species today.
19 And, you know, wildlife corridors, open valleys
20 between ranges are vital to the long-term
21 viability of these many subpopulations in these
22 what appear to be islands out in the eastern
23 Mojave and actually throughout the western U.S.

24 But we find that these islands are very
25 closely related into what we call a meta-

1 population. So females may have a home range say
2 in the Clark Mountains, but they will venture out.
3 And the males will have less fidelity to their
4 home range, and will go from one mountain range to
5 another. Thereby discovering various, you know,
6 family groups of females and yearlings and lambs.

7 MS. BELENKY: And on the corridor issue,
8 so if I understand you correctly, you're saying
9 that it is important to have some kind of
10 connectivity between these.

11 And I believe that there was an exhibit
12 put in on rebuttal by the applicant which was a
13 poster that discussed this need for some genetic
14 flow. Which said, I believe, something like one
15 male per generation would be sufficient.

16 Not getting too much into the details of
17 that poster right now, but would you agree that
18 it's important, from what you just said, to have
19 some connectivity and genetic flow between these
20 areas?

21 MR. JORGENSEN: Yes, it is. And not
22 only from that genetic point of view, but from
23 the, kind of the island biogeography point of
24 view, that when species get isolated onto an
25 island then certain events, like droughts, fires,

1 disease, a family of mountain lions, you know, a
2 female and a couple cubs, takes up residence.

3 We've had as many as 30, 35 bighorn
4 killed by a mother and two male cubs. Because
5 they stay with her for 20 months or so.

6 So, events like that, severe droughts,
7 fires, predation on an island can have devastating
8 impacts to a small population.

9 These animals need resilience to be able
10 to move in case of a severe drought or all the
11 water sources dry up. If there's a nearby system
12 of small or large mountain ranges nearby they will
13 move back and forth.

14 MS. BELENKY: And I guess on the
15 corridor issue, what I'd like to just bring out at
16 this point, also, is the way the project is
17 situated in the valley. And to the extent you
18 could speak a little bit about how it appears to
19 cut off the corridors, which I believe was also
20 said a little bit in the DFG letter.

21 Just how it impacts the availability of
22 that space and how bighorn would tend to use a
23 corridor, come down into the valley. What -- I'm
24 sorry, going off onto a second question.

25 Let's go with the first question first,

1 a little bit about how the project is situated in
2 the valley.

3 MR. JORGENSEN: Well, the project
4 appears to me, on the proposal maps, to be fairly
5 high up on the alluvial fan. And as the Clark
6 Mountains kind of make a big curve down toward I-
7 15 and the stateline hills do the same and come on
8 out, what we find in bighorn movements is they
9 will get out onto these points of land. They
10 might not follow the backbone of the mountain and
11 go way up into the pass. They may just strike out
12 across the valley, especially during the mating
13 season.

14 And so what I was struck with in the
15 documents that I read in the analysis relative to
16 bighorn sheep was that it didn't look to me like
17 an awful lot of analysis had been conducted,
18 considering bighorn movements, considering bighorn
19 forage areas down there.

20 And, you know, see the fence would be
21 constructed, which would completely preclude
22 animals from moving through the project site, is
23 fairly alarming. I mean the obvious thing to me
24 would be don't go so high upon the alluvial fan.
25 Go down, you know, to a more impacted zone down

1 near the freeway.

2 MS. BELENKY: Thank you. You mentioned
3 the lack of studies in the FSA. In the
4 applicant's rebuttal they discuss a little bit
5 about the kinds of surveys that they would suggest
6 perhaps. But maybe you could just walk us through
7 a little bit that there's different levels of
8 surveys that one could do for bighorn.

9 You could do, for example, we discussed
10 this, you could do a basic survey for sign; and
11 then there's different levels of surveys. They
12 wouldn't have to start with collared sheep, is
13 that correct?

14 MR. JORGENSEN: Correct. Yeah, collared
15 sheep is a huge investment in time and money.
16 There's no reason to collar an animal unless you
17 also are going to back that up with the field
18 staff to be out there monitoring those animals.
19 Unless you're going to do a simple mark-and-
20 recapture, you know, helicopter survey or
21 something.

22 But generally we don't collar animals in
23 a range unless we have the funds and the dedicated
24 staff to do the field work.

25 But things could be as simple as going

1 out, you know, on the site, or on the margins of
2 the site and search for sign at the right times of
3 the year. And you could step it pu and have
4 somebody up in the Clark Range and the stateline
5 hills.

6 You could do a simple helicopter survey
7 for half a day or a day and get a really good idea
8 of what's going on. You can also see bighorn
9 sign from a helicopter. You can see beds, trails,
10 tracks in the washes.

11 And you could step up and do, you know,
12 radio collars. You could do GPS collars, which
13 are far more expensive. But you start getting a
14 more complete picture of what's going on.

15 And more importantly, these corridors
16 that animals are using, and how that maybe the
17 Clark Range is connected to all those other ranges
18 around.

19 And absent that information, from what I
20 see in the documents, anyway, I mean there's
21 almost a total absence of bighorn information.
22 There was an affirmation that, okay, theoretically
23 we'll accept they're on the site. And here's what
24 we'll do to mitigate.

25 MS. BELENKY: Thank you. And then on

1 the mitigation, we've talked a little bit about
2 the water source that's, I think, bio-19, that was
3 suggested; has been put in as a condition by the
4 staff.

5 And I think in your testimony you
6 discuss whether there's enough evidence in the FSA
7 document to show that that is a needed mitigation.
8 So that the mitigation matches with the impacts
9 that they've identified, is that correct?

10 MR. JORGENSEN: Correct. It's good
11 field research and a long-term look at the Clark
12 Range, for instance, said, man, this place is
13 really desiccated. It's good habitat, it's good
14 forage. Bighorn could really thrive here. Except
15 the missing ingredient is native water sources.

16 Then a mitigation of building a guzzler
17 or two that would catch rainwater and provide
18 year-round water to wildlife might be, you know,
19 one component of mitigating for bighorn impacts.

20 But what I saw in the mitigation
21 suggestion was kind of a simple little solution to
22 a complex problem. We have a complex issue, let's
23 put a bighorn water system up in the hills
24 someplace out of sight, and we'll call it good.

25 There's no data to support it. Guzzlers

1 are excellent tools to use in many situations.
2 I've built, I think, 10 or 11 of them in places
3 where there were documented historic water sources
4 that were either usurped, dried up, or completely
5 taken over by human activity.

6 Then we basically went deeper into the
7 mountain range, away from people, and we replaced
8 those water sources with guzzlers. And it results
9 in some really good benefits to bighorn sheep.

10 But absent the information that you need
11 to say this place is desiccated, and, you know, we
12 know all of this about bighorn sheep, and a water
13 source or two up in the mountains would be very
14 beneficial, then it's, as I said in my testimony,
15 it's just a simplistic solution to a complex
16 issue.

17 MS. BELENKY: Thank you. I have no
18 further direct questions at this time.

19 HEARING OFFICER KRAMER: Okay. Now it's
20 time to allow everyone to ask questions of this
21 panel. Mr. Harris?

22 MR. HARRIS: A question. There are
23 three other witnesses identified for the
24 intervenors, Ileene Allen (sic), Jim Andr, and
25 Scott Cashen, who I think are doing nonplant

1 stuff, we'll call it.

2 Should they be on this panel, as well,
3 or when are we going to deal with those witnesses?

4 HEARING OFFICER KRAMER: Well, based on
5 what I asked earlier I was assuming that these
6 witnesses are in the biotic issues. And,
7 intervenors, am I wrong in that assumption? I'm
8 wrong or I'm correct?

9 MR. SUBA: No, you (inaudible)
10 California Native Plant Society --

11 MR. SUBA: Mr. Andr, is our witness for
12 plant issues.

13 HEARING OFFICER KRAMER: Plant issues,
14 okay. So -- and we were going to hear plant
15 issues separately. So I think we've had a little
16 bit of cross-over with Mr. Jorgensen because he
17 desires to not be here tomorrow.

18 MR. HARRIS: As do I.

19 (Laughter.)

20 MR. JORGENSEN: I thought we needed to
21 talk about something warm-blooded this evening,
22 too, instead of just tortoises.

23 MR. HARRIS: Again, I cannot be here
24 tomorrow so -- there were --

25 MS. SMITH: Mr. Cashen is a desert

1 ecologist and he has expertise in wildlife. I'm
2 mostly offering him for alternatives. But he's
3 more than happy to sit on this panel.

4 MR. HARRIS: Yeah, I just didn't know if
5 it was going to be twice or once. And if it was
6 one, which time. So, alternatives, that's fine
7 with us.

8 Then what about Ms. Anderson?

9 MS. BELENKY: Ilene Anderson is going
10 to speak both about plant restoration issues and
11 some of the other wildlife. But I think given the
12 lateness of the hour, we thought we would just do
13 that tomorrow, if that's possible.

14 MR. HARRIS: But I thought we were going
15 to handle all the nonplants, so if you've got
16 nonplant issues --

17 (Parties speaking simultaneously.)

18 MS. BELENKY: I don't think we can add
19 another person and cross-examination in the next
20 20 minutes, but --

21 MR. HARRIS: Well, that's why I asked
22 before we started cross. I wanted to see if the
23 panel was complete.

24 HEARING OFFICER KRAMER: I think we can
25 finish tortoises tonight.

1 MR. HARRIS: Okay, so --

2 HEARING OFFICER KRAMER: And sheep,
3 perhaps. Maybe even Mr. Jorgensen can call in
4 tomorrow, if necessary. But let's see what we can
5 get done this evening.

6 Mr. Harris, did you want to express a
7 preference for first or last?

8 MR. HARRIS: Actually, wanted to express
9 a preference for allowing my desert tortoise
10 people to go home after tonight. If we push Ms.
11 Anderson over they're going to have to stay
12 another night.

13 MS. ANDERSON: I don't plan on
14 testifying on desert tortoise issues at all.

15 MR. HARRIS: Well, you've got written
16 testimony on desert tortoise issues.

17 HEARING OFFICER KRAMER: And you want to
18 cross-examine her?

19 MR. HARRIS: I'd like that opportunity,
20 yes.

21 HEARING OFFICER KRAMER: And you need
22 your experts here to assist you in doing that?

23 MR. HARRIS: Because I'm not very bright
24 and it's late, yes.

25 MS. BELENKY: I mean I suppose we could

1 find some kind of compromise.

2 HEARING OFFICER KRAMER: Well, she
3 apparently doesn't need to offer anything by way
4 of direct testimony, is that true?

5 MS. ANDERSON: On the tortoise?

6 ASSOCIATE MEMBER BOYD: That's what she
7 said.

8 HEARING OFFICER KRAMER: Okay, well, Ms.
9 Anderson, --

10 MR. HARRIS: -- available for cross?

11 HEARING OFFICER KRAMER: -- you've been
12 sworn, I gather, earlier?

13 MS. ANDERSON: Yes.

14 HEARING OFFICER KRAMER: Okay, why don't
15 you join the panel and, Mr. Harris, we will let
16 you go first.

17 MR. HARRIS: I thought I was going last
18 on cross, because of the rehabilitation and the
19 friendly cross concerns.

20 HEARING OFFICER KRAMER: Well, --

21 MR. RATLIFF: We haven't seen you
22 tonight, I don't believe.

23 MR. HARRIS: No, that's right. There's
24 always a first.

25 HEARING OFFICER KRAMER: By going first

1 I was hoping to offer you at least the potential
2 opportunity to be able to dismiss your tortoise
3 consultants.

4 MR. HARRIS: I need them more for the
5 responses I'm going to hear than for the questions
6 I've already prepared.

7 HEARING OFFICER KRAMER: Okay, so
8 they're going to be rebuttal witnesses, perhaps?

9 MR. HARRIS: They're going to whisper
10 questions in my ears that --

11 HEARING OFFICER KRAMER: Okay, and what
12 I'm thinking is then you could do that now, and
13 maybe you will find that you don't need them after
14 20 minutes or so.

15 MR. RATLIFF: Mr. Kramer, I'm willing to
16 go first if Jeff doesn't want to. I don't have
17 very many questions anyway.

18 MR. HARRIS: Nor me, either, actually.

19 HEARING OFFICER KRAMER: All right, Mr.
20 Ratliff, go ahead. I'm killing time here.

21 MR. RATLIFF: Okay.

22 CROSS-EXAMINATION

23 BY MR. RATLIFF:

24 Q I'm sorry, I've got Mr. Jorgensen's name
25 and I've got Mr. Connor's name, but I missed your

1 name somehow and I apologize.

2 DR. MARLOW: Ron Marlow.

3 MR. RATLIFF: Marlow, I'm sorry.

4 Mr. Marlow -- Dr. Marlow, thank you. It
5 is Dr. Marlow, isn't it?

6 DR. MARLOW: Ron's just fine.

7 MR. RATLIFF: Your testimony seemed to
8 indicate that the habitat for desert tortoise
9 closer to I-15, I think you said perhaps as much
10 as within three miles or five kilometers, I think
11 you said, that it appears not to be as least as
12 populated as desert habitat further from I-15, is
13 that correct?

14 DR. MARLOW: That's correct.

15 MR. RATLIFF: And is that because, as
16 you understand it, that habitat is actually
17 degraded, or is it some other reason?

18 DR. MARLOW: The vegetation is intact
19 and functional. The habitat, that is the
20 characteristics of that particular place,
21 including threats, is less suitable for tortoises.

22 The existence of the road poses a
23 threat. So if a tortoise lives in what is
24 otherwise a really good place, but eventually he's
25 going to get run over because he's in the road, or

1 because gangs drive up and down your neighborhood,
2 you can have a good house but if the threat of
3 being in that place is great enough, then as
4 habitat it is less suitable.

5 So I'm not imply that the vegetation or
6 the soil or anything else is damaged. It's just
7 that tortoises that live close to the road will
8 eventually walk on the road. It may take them a
9 long time, but on average, in a basin that has
10 wide alluvial fans, and therefore lots of habitat,
11 at some distance from the road, produce enough
12 tortoises that on average we get about one or two
13 tortoises getting killed per linear mile of road.

14 And we find that by picking up carcasses
15 along the road, and then coming back a year later
16 and counting the number of carcasses. So that's
17 on roads that have static traffic levels.

18 And that means that you've got good
19 viable populations, but they're providing lots of
20 animals to be squashed.

21 So the habitat is not good because of
22 the existence of the road. If the road was
23 rendered no longer a threat, then the good
24 vegetation and soil and all the rest of that would
25 suddenly become much better habitat.

1 MR. RATLIFF: So if that's the case,
2 then if you were to look at that habitat, just a
3 visual check of the habitat and the quality of the
4 habitat, perhaps you wouldn't see any difference
5 between that habitat and better habitat that
6 doesn't have that threat, is that correct?

7 DR. MARLOW: That's -- the thing that
8 would be missing from that would be evidence that
9 the species of interest for which that land and
10 vegetation all represented habitat, is not there.

11 So, if all of those things are present
12 somewhere where the threat isn't, then you can
13 assume that that's potential habitat.

14 But if the species you're concerned
15 about is not in that place, then the term habitat
16 sort of loses its meaning.

17 MR. RATLIFF: So does that mean, when
18 you talk about this area that's in proximity to I-
19 15, are you talking about as the freeway goes
20 south, that is uniformly? Or does that become
21 better habitat as you go up in elevation? Or does
22 it make any difference that you're going up in
23 elevation?

24 DR. MARLOW: In basins without a threat
25 we know that the bottom of basins where you have

1 playas, very little vegetation, you find very few
2 tortoises.

3 And there's a ring of sort of salt-
4 adapted plants that are outside of dry lake beds.
5 And that is less suitable for tortoises, although
6 you find them there when you get up above the
7 playa and into drained benches. Those tend to be
8 very good areas for tortoises.

9 And as you get higher in elevation, it
10 becomes not as good for tortoises and we don't
11 know all of the reasons for that, but up around
12 4000 feet you stop seeing evidence of tortoises.
13 Perhaps it gets too cold in the winter or some
14 other feature.

15 So, basins provide a range of vegetation
16 and soil types that are some better than others.
17 If you put a road through there, then the road's
18 going to have an impact at some distance. And you
19 might call that no longer good habitat, but it's
20 just because the road is having an effect on the
21 tortoise populations. The vegetation and soil is
22 all unchanged.

23 So through management, if you made the
24 road go away, or you made the impacts of the road
25 go away, then all of that land with the vegetation

1 and everything else on it that tortoises need,
2 would suddenly become much higher quality habitat
3 because there wasn't a threat of death by being in
4 that place.

5 MR. RATLIFF: Could that be accomplished
6 by tortoise fencing along I-15?

7 DR. MARLOW: Yes. And we fenced all of
8 I-15 from stateline up to Las Vegas. Clark County
9 Desert Conservation Program set, as one of the
10 actions it would take to improve tortoise
11 management, the fencing of all major roads. And
12 so that's been done throughout.

13 I think Caltrans, as a function of all
14 highway projects that receive federal funding, has
15 to fence roads in California. So, --

16 MR. RATLIFF: But that road isn't
17 currently fenced near the project, is it?

18 DR. MARLOW: I don't believe it is.

19 MR. RATLIFF: Okay. So that might be an
20 effective management improvement if it were
21 fenced?

22 DR. MARLOW: It would be -- I'd
23 certainly recommend it. And based on my
24 recommendations, Clark County spent a lot of money
25 doing that.

1 What I have to say is that we don't yet
2 have evidence that anyplace that that's been done
3 things have gotten better for tortoises. So --

4 MR. RATLIFF: You don't have that
5 evidence?

6 DR. MARLOW: Well, I'm saying we don't
7 have evidence for it. I sort of believe in my
8 heart, but I believe a lot of things for which
9 there is not a lot of evidence.

10 We haven't yet been able to empirically
11 demonstrate much of anything that we've done to
12 improve conditions for tortoises have had a
13 beneficial effect that we can measure by an
14 increase in the number of tortoises.

15 Tortoises are declining across the
16 range. Yet we've spent lots of money trying to
17 make things better for tortoises.

18 So it doesn't mean that the things that
19 we have done haven't been beneficial, but we
20 cannot demonstrate them as being beneficial.

21 MR. RATLIFF: So even in the absence of
22 hard evidence would you recommend that be fenced
23 as a management tool?

24 DR. MARLOW: Yes. I have, and I would
25 do it again, but I mean I'd have to declare that

1 we have yet to demonstrate that.

2 In some cases demonstrating it would be
3 very expensive. It would be -- fencing in Clark
4 County, I've constructed a lot of tortoise fencing
5 and we've done a whole lot of it with volunteer
6 groups, various environmental groups. The Boy
7 Scouts have gone out and done this. It's cheap to
8 fence, to retrofit fencing to existing freeway
9 fences. So we've done a whole lot of that.

10 But, it would cost -- I'm not sure how I
11 would go about doing it, but it would cost a lot
12 of money to go in and show with a study that it
13 improved things for tortoises. Because, I told
14 you before, it costs a lot of money to count
15 tortoises.

16 The only way, you know, -- or if we put
17 radio collars on them, just like with sheep, it
18 gets very expensive. So I think some things are
19 obvious but they've not yet been demonstrated.

20 MR. RATLIFF: Thank you.

21 DR. MARLOW: Yes, sir.

22 MR. RATLIFF: Mr. Jorgensen, I have
23 just, I think, really one question, or I think
24 it's one question, for you. And that is with
25 regard to the sheep, you're the only witness who

1 has actually testified about sheep in the case.

2 And I guess I would ask you what kind of
3 mitigation would you recommend for desert sheep,
4 for Ivanpah?

5 MR. JORGENSEN: Well, a six-foot chain-
6 link fence around a project pretty much puts an
7 end to any kind of sheep access. So I guess if I
8 were, you know, the overlord looking down from the
9 Clark Mountains, I would say move the project
10 downslope; leave as much open space between
11 mountain ranges as possible.

12 I would certainly put some effort into
13 determining what the status of sheep in the Clark
14 Mountains is. I know Fish and Game conducts
15 aerial surveys there. I know they have built
16 water guzzlers there. I know two of them died
17 there doing it, you know, in a helicopter crash.

18 I know there's been a lot of efforts put
19 into the Clark Mountains. But I saw no evidence
20 of that in any of the documents that was presented
21 here.

22 And that's what got me interested in
23 expressing myself here, was that, you know, down
24 where I live the subpopulation there is listed as
25 federally endangered.

1 So if this were a listed subpopulation
2 it would certainly be, you know, near the top of
3 the subject list. But it's still a very important
4 animal in this desert ecosystem, and I think it
5 needs much more attention than it received in the
6 documents.

7 MR. RATLIFF: So I take it that if
8 you're recommending a mitigation measure, a
9 reconfiguration of the project to avoid the
10 lateral expansion of the project further north, is
11 that correct?

12 MR. JORGENSEN: My concern is the
13 proximity to the mountain ranges. So I would
14 guess that would be to the north or the west.

15 And as I drive up and down, you know,
16 around the west, I look at powerline projects and
17 I just envision more and more alternative energy
18 projects.

19 I would much rather see them in the
20 impacted corridors along freeway systems than out
21 through the wilderness areas. And out in, you
22 know, scraping off native desert lands.

23 The mitigation of a guzzler, as I
24 mentioned, that might be an excellent first step
25 to an overall solution. But it's not something

1 you just write a check for one guzzler and call it
2 good. Because there's far more impact to bighorn
3 sheep than just the lack of water up in the Clark
4 Mountains.

5 MR. RATLIFF: Thank you. And, Dr.
6 Connor, when you were explaining the duties that
7 you have in your current occupation you talked
8 about one of them as advising private developers
9 on the acquisition of offset habitat.

10 DR. CONNOR: That was what I was doing
11 when I was working in the preserve.

12 MR. RATLIFF: Oh, that was your previous
13 job, I'm sorry. Okay.

14 And you heard, I think, some of the
15 earlier discussions regarding feasibility of the
16 purchase and preservation of offset habitat. My
17 question for you -- I think my question for you is
18 what is the feasibility of purchasing offset
19 habitat for desert tortoise in increments of the
20 size that are represented by the Ivanpah project?
21 Is there feasible mitigation through offset
22 preservation, in your opinion?

23 DR. CONNOR: I think it's unfortunately
24 increasingly difficult to do. But in my opinion
25 that's the most important thing to do.

1 Acquiring habitat, transferring it into
2 public ownership means that that land is
3 effectively not going to be developed, unless
4 somebody puts a solar panel in. But, basically it
5 takes it out of -- it reduces the risk of other
6 activities going on that are incompatible with
7 species recovery.

8 And I think that's paramount because no
9 matter how much you do to manage an area, if
10 somebody builds a house in the middle of it, it
11 basically just sort of blows all your conservation
12 efforts.

13 There are other things we can do besides
14 acquire habitat. Certainly I think fencing along
15 major roads is absolutely essential. Because we
16 have a situation where we have tortoises
17 needlessly lost every day. Just go onto the
18 roads, that's the end of it.

19 You know, there are people speeding
20 through Mojave National Preserve. I was there, I
21 said I was there at New Years Eve. New Years Eve
22 is a very busy time on the California/Nevada
23 border, you know, rushing to the casinos and so
24 on.

25 I-15 gets choked up so they go through

1 the park. So like even Ivanpah Road, I could not
2 believe the amount of traffic that's on that road.
3 This is a really small road.

4 So, you know, certainly putting fencing
5 along roads helps reduce tortoise loss. Stops
6 them from going to the road. It does open this
7 habitat next to the road, makes it more available
8 for tortoises to use.

9 There is some evidence, Mark Sazaki who
10 used to work for CEC, was involved in a study
11 looking along I-58, looking at fencing. This is,
12 you know, a project he's been involved in for a
13 long period of time.

14 They did find some evidence that you got
15 an increase in tortoise sign in areas that had
16 been fenced. So it was becoming more available to
17 use.

18 But one thing you have to bear in mind
19 is tortoises have this long generation time. Even
20 if you do something to improve an area, and you've
21 got a species that takes 20 years to produce a new
22 generation. And you still have other things
23 impacting the population, it's really difficult to
24 actually see an end result in a short period of
25 time. You're just not going to do it.

1 So, you know, when we do something to
2 protect tortoises today, it's 40 years in the
3 future when we actually see a difference. So
4 we're in that sort of situation.

5 The other thing we can do is end cattle
6 grazing in desert tortoise habitat. The 1994
7 recovery plan categorically said no grazing in
8 desert tortoise habitat.

9 And one of the big advantages of buying
10 out cattle grazing allotments is once you've
11 bought them out, they're gone. You know, you can
12 restore routes, you can restore offroads vehicle
13 routes in the desert. You can restore them and
14 then someone will drive over them again and just,
15 you know, wreck your restoration.

16 But you terminate the cattle grazing
17 permit, you know, it's pretty unlikely you're
18 going to get people sort of coming in the middle
19 of the night and unloading cows illegally. You
20 know, it's a threat you can actually remove.
21 That's one of the reasons why I've been advocating
22 it.

23 I got involved in the Clark Mountain
24 allotment, the Bureau of Land Management is
25 renewing, has been considering renewing the permit

1 on Clark Mountain. And they started the NEPA
2 analysis about two years ago.

3 I submitted a protest back in 2008.
4 They forgot to mention the Ivanpah Solar Plant in
5 the cumulative effects analysis. But that's part
6 of the reason why I got actually interested in
7 that specific area.

8 So there are, I think, a lot of things
9 that can be done. But I think land acquisition
10 has to be a primary responsibility.

11 And one of the other things, too, is I
12 was asking about the connectivity issue. Because
13 I think one thing we need to do is we need to make
14 sure that there is connectivity between these
15 recovery units. Because if the northeastern
16 Mojave recovery unit, the south end of the Ivanpah
17 Valley goes, then there's going to be no
18 connectivity between the rest of California and
19 these two other recovery areas.

20 It's really crucial and I think we
21 should be looking at, you know, there's the
22 possibility of maybe acquiring habitat that
23 provides essential connectivity between the
24 recovery units. And maybe acquiring habitat in an
25 adjacent recovery unit is going to facilitate that

1 process, too.

2 So there are, I think there are ways of
3 looking at the problem in a logical, scientific
4 fashion. Basically oriented on the biology, not
5 just on expediency --

6 MR. RATLIFF: Thank you.

7 DR. CONNOR: -- ways to do it.

8 MR. RATLIFF: I'm finished, thank you.

9 HEARING OFFICER KRAMER: Okay. Let me
10 ask of the intervenors, how many of you are going
11 to have questions for all or part of this panel by
12 a show of hands.

13 Okay, one, two. And how long do you
14 think it will take? Two minutes? Okay. We can
15 go another 15 minutes.

16 So, Mr. Harris, do you think there's a
17 chance you could finish in --

18 MR. HARRIS: Yeah, I was going to
19 volunteer to go. We've got just a few questions.
20 Two questions on sheep from Ms. Pottenger; and
21 then a couple of questions for Dr. Marlow, I
22 think. And I'll try to get the other ones very
23 brief, as well. So, we'll go ahead. Go ahead.

24 HEARING OFFICER KRAMER: You need to
25 identify yourself.

1 MS. POTTENGER: My name is Samantha
2 Pottenger.

3 HEARING OFFICER KRAMER: Okay, could you
4 spell your last name for the reporter.

5 MS. POTTENGER: P-o-t-t-e-n-g-e-r.

6 HEARING OFFICER KRAMER: Thank you. Go
7 ahead.

8 CROSS-EXAMINATION

9 BY MS. POTTENGER:

10 Q Mr. Jorgensen, on page 2 of your
11 testimony you stated that you find the review of
12 bighorn impact and suggested resolutions to be
13 entirely unsatisfactory, is that correct?

14 MR. JORGENSEN: Correct.

15 MS. POTTENGER: Did you review the
16 entire biological resources section of the FSA in
17 reaching this conclusion?

18 MR. JORGENSEN: I reviewed all the
19 sections I knew of that referred to the analysis
20 of bighorn sheep.

21 MS. POTTENGER: Did you review the
22 corresponding conditions of certification?

23 MR. JORGENSEN: Correspondence?

24 MS. POTTENGER: I'm sorry, the
25 corresponding conditions of certification to the

1 biological resources section.

2 MR. JORGENSEN: I don't recall that, no.

3 MS. POTTENGER: Did you review any of
4 the other FSA sections?

5 MR. JORGENSEN: Relative to other
6 wildlife species?

7 MS. POTTENGER: No, just in general and
8 how --

9 MR. JORGENSEN: No, I did not.

10 MS. POTTENGER: -- those sections -- So
11 you didn't review if any of the other sections
12 might have addressed impacts to bighorn sheep?

13 MR. JORGENSEN: I reviewed several
14 sections that had references to bighorn.

15 MS. POTTENGER: Did you review any of
16 the other conditions of certification besides the
17 ones contained in the biological resources
18 section?

19 MR. JORGENSEN: I don't recall doing
20 that, no.

21 MS. POTTENGER: You stated that the FSA
22 does not comprehensively assess the impact of the
23 proposed project on the bighorn population. Over
24 the course of your career have you been involved
25 in the preparation of EIRs or EISs that assess the

1 impact of a project on bighorn sheep?

2 MR. JORGENSEN: Yes.

3 MS. POTTENGER: Can you name them,
4 please?

5 MR. JORGENSEN: I've reviewed probably
6 100 or more CEQAs. And many -- I didn't involve
7 myself with NEPA except for reviewing other, you
8 know, federal projects, NEPA.

9 But projects relative to construction of
10 water sources in state wilderness. And relative
11 to the capture of bighorn; the radio-collaring of
12 bighorn; the capture of mountain lions in bighorn
13 habitat.

14 MS. POTTENGER: Did you review the
15 environmental document prepared for the Sunrise
16 Power Link?

17 MR. JORGENSEN: Yes, I did.

18 MS. POTTENGER: Did the Sunrise Power
19 Link document comprehensively assess the impacts
20 of the project on bighorn sheep, as you use that
21 term in your testimony?

22 MR. JORGENSEN: I think the Sunrise
23 Power Link did quite a bit better job of
24 investigating bighorn potential impacts and
25 potential mitigation.

1 I don't think that the applicant's
2 treatment of the bighorn subject was complete at
3 all.

4 MS. POTTENGER: The applicant in the
5 Sunrise Power Link document or in this case?

6 MR. JORGENSEN: Yes, Sunrise Power Link.

7 MS. POTTENGER: Thank you, sir. Were
8 you prepared -- I'm sorry -- were you involved
9 with the preparation of the Anza-Borrego State
10 Park general plan?

11 MR. JORGENSEN: Yes.

12 MS. POTTENGER: And you were
13 Superintendent of Anza-Borrego State Park when the
14 park published this general plan and EIR?

15 MR. JORGENSEN: That's correct, in 2005.

16 MS. POTTENGER: And did the EIR contain
17 a comprehensive assessment of impacts of the park
18 on bighorn sheep?

19 MR. JORGENSEN: I think when you're
20 operating a park and two-thirds of it is state
21 wilderness, and probably 2 percent of it is
22 actually occupied or used by people, that I don't
23 think you have to, you know, do a thesis on every
24 form of wildlife in the park for which you're
25 developing a general plan.

1 What we did relative to that was we
2 chose focus use areas where human activities or
3 any kind of development would be allowed, and
4 everything else was basically off limits to
5 development.

6 So we chose areas that, for the most
7 part, were already developed as visitor centers,
8 campgrounds, highways and routes of travel.

9 MS. POTTENGER: Mr. Jorgensen, is that a
10 yes or a no on whether that EIR contained a
11 comprehensive assessment of impacts of the park on
12 bighorn sheep?

13 MR. JORGENSEN: That would be a no. I
14 don't think it was necessary to look at a park
15 management plan and what its impact was going to
16 be on bighorn sheep. It was not a development
17 plan.

18 MS. POTTENGER: Okay, thank you. And
19 just a few more questions, Mr. Jorgensen. Are you
20 aware that hunting of bighorn sheep is allowed in
21 the Mojave National Preserve?

22 MR. JORGENSEN: Yes.

23 MS. POTTENGER: And have sheep ever been
24 translocated from the Mojave National Preserve?

25 MR. JORGENSEN: Yes, they have.

1 MS. POTTENGER: Do you know how many
2 have been translocated?

3 MR. JORGENSEN: No, I do not. And when
4 you say the Preserve -- I know an awful lot of
5 have been, you know, moved around within the
6 Mojave Desert in California. When you specify
7 Preserve, I am not as familiar with boundaries in
8 the preserve. But I do know that transplants have
9 occurred.

10 MS. POTTENGER: Did the environmental
11 assessments for a translocation of sheep indicate
12 that sheep could be removed from the Mojave
13 National Preserve without significantly impacting
14 the source population in the preserve?

15 MR. JORGENSEN: I didn't see that
16 document. But my opinion would be that the
17 Department of Fish and Game adequately assessed
18 that and determined that the populations they were
19 pulling translocation stock from were healthy
20 subpopulations.

21 CROSS-EXAMINATION

22 BY MR. HARRIS:

23 Q A couple more questions from the
24 applicant for Ms. Anderson on -- let's see if I
25 can find the page number -- on page 5 of your

1 testimony, talking about compensatory mitigation.

2 And you say, for many of the rare
3 wildlife species, bio-17 has proposed as
4 mitigation for impacts. Do you see that
5 testimony?

6 MS. ANDERSON: I don't have it in front
7 of me, but I know what you're referencing.

8 MR. HARRIS: So is it your testimony
9 then that bio-17 is intended to account for
10 impacts to species other than the desert tortoise?

11 MS. ANDERSON: I believe that that's the
12 intent. I hope it's the intent.

13 MR. HARRIS: Okay, I'll take that, thank
14 you.

15 Mr. Connor, we've established you're not
16 a lawyer, so I'm going to skip you, if that's
17 okay.

18 Dr. Marlow, a couple questions. You
19 talked about, you know, well-trained surveyors
20 could miss a desert tortoise, or they could miss
21 an elephant, so how long does it take to become a
22 well-trained surveyor?

23 DR. MARLOW: The Fish and Wildlife
24 Service, in the last two years, has required its
25 contracted surveyors to be trained for three

1 weeks.

2 MR. HARRIS: Do you consider that kind
3 of a minimum to really become a good surveyor for
4 these courses?

5 DR. MARLOW: The Fish and Wildlife
6 Service does. I would prefer to see more
7 training. But I don't have real good evidence
8 that more training would be beneficial.

9 What we have done is analyzed errors on
10 the part of surveyors, and they were not all
11 together errors in, for example, not seeing
12 tortoises. Because we couldn't assess that. But
13 errors in how they recorded data, things that
14 would indicate a lack of familiarity with
15 procedures.

16 And we found that those decreased
17 significantly over the first two or three weeks in
18 the field data collection. So, I think there's
19 training, and then there's on-the-job training.

20 MR. HARRIS: So if I was going to go out
21 there for a day as a volunteer, get one day of
22 training, that's probably not sufficient in your
23 mind?

24 DR. MARLOW: No, and it's not that we
25 would improve your ability to necessarily be

1 observant and see things. It's just that the
2 survey protocols require that you absolutely see
3 everything that's within one or two or three
4 meters of the line you're supposed to be walking.

5 And part of this requires that we kind
6 of retrain naturalists to keep their eyes right at
7 their feet, as opposed to searching out.

8 So it's de-training people who are
9 naturally observant to follow a procedure. And
10 that is so that the data they collect complies
11 with the statistical model that analyzes that
12 data. And it's kind of complicated, but very
13 experienced tortoise biologists are some of the
14 hardest to retrain, because they're used to
15 searching the horizon for tortoises, and that
16 really messes up the data.

17 So, the best -- and this is bad for both
18 you and me, but me more than you, the best
19 tortoise surveyors are young, tall people.

20 MR. HARRIS: Okay, thank you. I don't
21 qualify, you're right. Page 3 of your testimony.
22 Do you have your written testimony in front of
23 you, sir -- Dr. Marlow? I'm going to ask you a
24 couple questions and I'll cite the pages. So it
25 might be helpful to have it in front of you. Okay.

1 On about page 3 in your testimony you
2 say -- it's page 3 on my pdf, that's why I said
3 that -- you say that the densities on the Ivanpah
4 Valley plot, actually this may be on page 2,
5 declined in the 1970s and again in the 1990s.

6 Where is this plot in relation to the
7 project site?

8 DR. MARLOW: I believe the project plot
9 was on one of the illustrations that Dr. Connor
10 showed, and it was on the east side of I-15, south
11 of the Nipton Road is where I believe that plot is
12 located.

13 MR. HARRIS: East side, south of Nipton.

14 DR. MARLOW: East side of 15, south of
15 the Nipton Road.

16 MR. HARRIS: So not on our project site,
17 but on the other side of the interstate, is that
18 correct?

19 DR. MARLOW: That's correct.

20 MR. HARRIS: Okay. Again, on I think
21 this is page 4 of your testimony, at the top of
22 the page, it says, you state, a spatial analysis
23 of the distribution of living tortoises and
24 tortoise carcasses in the Ivanpah Valley from a
25 transect data showed a large area in which only

1 carcasses are found, and a much smaller area in
2 which live tortoise are found.

3 Do you see that testimony?

4 DR. MARLOW: I don't see it, but I
5 remember writing that.

6 MR. HARRIS: And what's the source of
7 your -- and the source of your information was
8 figure 4.29 on page 87 of the desert tortoise
9 recovery plan assessment, is that correct?

10 DR. MARLOW: Yes, sir.

11 MR. HARRIS: Are you aware that the
12 analysis of the desert tortoise recovery action
13 plan assessment was based on information from the
14 Ivanpah DWMA, only?

15 DR. MARLOW: No. If that's the case, I
16 was not aware of that. But the data that were
17 collected were from rangewide monitoring. And the
18 rangewide monitoring transect locations were
19 located by the Fish and Wildlife Service.

20 So if the Fish and Wildlife Service was
21 locating those transects only in DWMAs, that would
22 be correct. But I don't know.

23 MR. HARRIS: I'm going to give you a
24 copy of the document you referenced, the desert
25 tortoise recovery plan assessment. I put the

1 cover on there, I guess it's actually page 82. I
2 may have said 87 before.

3 This is the figure 4.29 in your
4 testimony, is that correct?

5 DR. MARLOW: Yes, sir.

6 MR. HARRIS: Where is the project site
7 on this particular figure?

8 DR. MARLOW: I'm not certain.

9 MR. HARRIS: Is it within any of the
10 circled areas that show the hatch marks, the x's
11 and the o's and the dots?

12 DR. MARLOW: I don't believe it is.

13 MR. HARRIS: Okay, so you believe it's
14 the areas where the carcasses were found, as shown
15 on figure 4.29, -- the project site is not within
16 those areas, is that correct?

17 DR. MARLOW: I don't know for certain,
18 but I believe that this is where the project site
19 is, across the California border --

20 MR. BASOFIN: Excuse me. I'm going to,
21 I need to object to that. I think that calls for
22 speculation. I mean Mr. Marlow isn't familiar
23 with this map. There is a limited number of
24 identifications of topographical features alone
25 there, that I think it's asking for speculation

1 for him to identify where the project is on this
2 map without any identifiers on the map.

3 HEARING OFFICER KRAMER: Well, if he
4 felt uncomfortable doing that, that would be for
5 him to say. Objection overruled.

6 MR. HARRIS: Yeah, again, this map is
7 referenced in your direct testimony on page 4.
8 So, it's at the top of the page if you're trying
9 to find it there.

10 HEARING OFFICER KRAMER: Are you almost
11 done, Mr. Harris?

12 MR. HARRIS: I got one more, I think.

13 In your testimony you state that the
14 Ivanpah Valley is one of the highest elevations
15 areas supporting desert tortoise. Are you aware
16 that desert tortoise occur at elevations as high
17 as 7300 feet?

18 DR. MARLOW: Yes, I am.

19 MR. HARRIS: I have no more questions
20 for the panel.

21 HEARING OFFICER KRAMER: Thank you. We
22 really are going to have to quit right now. Do
23 any of the intervenors have any questions for Mr.
24 Jorgensen?

25 On the telephone? County of San

1 Bernardino?

2 MR. BRIZZEE: I have no questions.

3 HEARING OFFICER KRAMER: Okay. Well, we
4 will have to bring back the rest of the panel,
5 minus Mr. Jorgensen, in the morning at 9:00. And
6 finish up with them.

7 And then we will get to the biotic
8 issues. And go forward then to -- I think we've
9 probably covered the miscellaneous issues, but
10 we'll make sure we've covered all the other
11 biological issues then.

12 And then we'll discuss project
13 alternatives hopefully by mid-morning or so. So
14 9:00 tomorrow.

15 Any issues to raise before we adjourn?

16 MR. BASOFIN: Mr. Kramer, do you need
17 Dr. Marlow tomorrow?

18 HEARING OFFICER KRAMER: Let me ask the
19 intervenors, do you need Dr. Marlow? Seeing none,
20 Dr. Marlow can be excused, as well.

21 Mr. Harris?

22 MR. HARRIS: A couple of questions. We
23 still have botany to finish on the biological
24 topics?

25 HEARING OFFICER KRAMER: Right, that

1 would be the first thing in the morning.

2 MR. HARRIS: We're going to start with
3 botany. And then --

4 HEARING OFFICER KRAMER: After we finish
5 the couple of questions for this panel.

6 MR. HARRIS: Okay. Minus Dr. Marlow.
7 Could Dr. Marlow be available by telephone
8 tomorrow in case my desert tortoise guys have a
9 brainstorm?

10 DR. MARLOW: Later in the day. I'm
11 going to try and fly out in the morning. So, you
12 know, when I get home.

13 MR. HARRIS: Okay. I'm not sure we're
14 going to need to call you, but -- so, Mr. Kramer,
15 the other constraint that we have is our
16 alternatives witnesses for the applicant. We have
17 some constraints and a 5:00 flight for someone
18 who's not available on the 13th. So if we don't
19 finish our panel in time for that person to get to
20 an airplane for a 5:00 flight, then we're going to
21 need to continue him to the 14th.

22 And I think either one of those can
23 work, but the 13th can't for our alternatives
24 panel.

25 HEARING OFFICER KRAMER: We'll try to do

1 the best we can. Anything else?

2 MR. HARRIS: Yeah, one more other thing,
3 sorry. I'm prolonging everybody.

4 There are a number of documents that are
5 offered as exhibits by the parties which are not
6 referenced in their testimony. There's no one
7 available to testify to the truth of the matters
8 asserted. There's no one available for me to
9 cross-examine. And they're not incorporated by
10 reference as a basis for the expert's opinion.

11 And I'm thinking mostly about academic
12 studies that are being offered as exhibits. I
13 have no objection to those documents being offered
14 as citations, but the exhibit has a special
15 meaning in the Committee's parlance, and that's
16 something we can rely on.

17 I'm basically wanting to avoid any of
18 these got'cha situations where there's a
19 scientific journal from 1981 or a newspaper
20 article, in particular from the Defenders, but
21 there's no one here to testify about it, that
22 shows up in a brief as an exhibit.

23 So, I'll put together a list of
24 documents that the applicant would ask the
25 Committee to not move into evidence as exhibits,

1 because there's no witnesses available to sponsor
2 those. And I'll put that list together for
3 tomorrow morning and bring it with me. And then
4 make the motion at that point.

5 HEARING OFFICER KRAMER: Sounds good.
6 Seeing nothing else, we're adjourned.

7 (Whereupon, at 9:47 p.m., the hearing
8 was adjourned, to reconvene at 9:00
9 a.m., Tuesday, January 12, 2010, at this
10 same location.)

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CERTIFICATE OF REPORTER

I, PETER PETTY, an Electronic Reporter, do hereby certify that I am a disinterested person herein; that I recorded the foregoing California Energy Commission Hearing; that it was thereafter transcribed into typewriting.

I further certify that I am not of counsel or attorney for any of the parties to said hearing, nor in any way interested in outcome of said hearing.

IN WITNESS WHEREOF, I have hereunto set my hand this 20th day of January, 2010.

PETER PETTY

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CERTIFICATE OF TRANSCRIBER

I certify that the foregoing is a correct transcript, to the best of my ability, from the electronic sound recording of the proceedings in the above-entitled matter.

January 20, 2010

Margo D. Hewitt,

AAERT CET**00480