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EVIDENTIARY HEARING  
BEFORE THE  
CALIFORNIA ENERGY RESOURCES CONSERVATION  
AND DEVELOPMENT COMMISSION

In the Matter of: )  
Application for Certification ) Docket No. 08-AFC-13  
for the Calico Solar Project )  
(formerly SES Solar 1) )  
----- )

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

MONDAY, SEPTEMBER 20, 2010  
1:10 P.M.

**ORIGINAL**

JAMES F. PETERS, CSR, RPR  
CERTIFIED SHORTHAND REPORTER  
LICENSE NUMBER 10063

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Joshua Basofin, Defenders of Wildlife

Travis Ritchie, Sierra Club

Gloria Smith, Sierra Club

Steven Lamb, Burlington Northern Santa Fe (BNSF)

Cynthia Burch, Burlington Northern Santa Fe (BNSF)

Patrick Jackson

INDEX

	<u>PAGE</u>
Opening remarks by Presiding Member Eggert	1
Opening remarks by Hearing Officer Kramer	5

BIOLOGICAL RESOURCES

APPLICANT'S PANEL  
(Felicia Bellows)

Cross-Examination by Mr. Ritchie	61
Cross-Examination by Ms. Miles	69
Cross-Examination by Mr. Lamb	73

(Howard H. Chang)

Direct Examination by Ms. Foley Gannon	84
Cross-Examination by Mr. Lamb	88
Cross-Examination by Mr. Basofin	121
Cross-Examination by Ms. Miles	122
Cross-Examination by Mr. Jackson	122
Cross-Examination by Mr. Adams	125
Redirect Examination by Ms. Foley Gannon	127

SOIL AND WATER RESOURCES

APPLICANT'S PANEL  
(Bob Byall, Matt Moore, Felicia Bellows)

Direct Examination by Ms. Foley Gannon	133
Cross-Examination by Mr. Lamb	135
Cross-Examination by Mr. Basofin	172
Cross-Examination by Mr. Jackson	174
Redirect Examination by Ms. Foley Gannon	180
Cross-Examination by Ms. Miles	184
Cross-Examination by Mr. Ritchie	200

STAFF'S PANEL  
(Casey Weaver, Chris Huntley)

Direct Examination by Mr. Adams	209
Cross-Examination by Ms. Foley Gannon	214
Cross-Examination by Mr. Ritchie	219
Cross-Examination by Mr. Lamb	228

INDEX CONTINUED

PAGE

STAFF'S PANEL(continued)

(Casey Weaver, Chris Huntley)

Cross-Examination by Mr. Basofin	277
Cross-Examination by Ms. Miles	279
Recross-Examination by Ms. Foley Gannon	282

BNSF'S PANEL

(Douglas Hamilton, Steven Metro, David Miller)

Direct Examination by Mr. Lamb	288
Cross-Examination by Ms. Foley Gannon	327
Cross-Examination by Mr. Adams	333

CULTURAL RESOURCES

STAFF'S PANEL

(Sarah Allred)

Direct Examination by Mr. Adams	339
Cross-Examination by Ms. Miles	340
Cross-Examination by Ms. Foley Gannon	365

APPLICANT'S PANEL

(Rachael Nixon)

Direct Examination by Ms. Foley Gannon	368
Cross-Examination by Ms Miles	369

CURE'S PANEL

(David Whitley)

Direct Examination by Ms. Miles	371
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APPEARANCES CONTINUED

PAGE

BIOLOGICAL RESOURCES

<u>GROUP PANEL</u> (Theresa Miller, Chris Huntley, Scott White, Patrick Mock, Chris Otahal, Jeff Aardahl, Scott Cashen)	
Direct Examination by Ms. Foley Gannon	388
Direct Examination by Mr. Adams	408
Cross-Examination by Mr. Ritchie	415
Cross-Examination by Mr. Basofin	482
Cross-Examination by Ms. Miles	498
Direct Examination by Mr. Basofin	540
Direct Examination by Ms. Miles	545
Closing remarks by Presiding Member Eggert	569
Adjournment	570
Reporter's Certificate	571

EXHIBITS

<u>EXHIBITS</u>	<u>PAGE</u>
113-128	563
317	563
461-465	564
616-620	565
1021-1023	566
1211-1214	567

1  
2  
3  
4  
5  
6  
7  
8  
9  
10  
11  
12  
13  
14  
15  
16  
17  
18  
19  
20  
21  
22  
23  
24  
25

PROCEEDINGS

PRESIDING MEMBER EGGERT: Good afternoon, everyone. We'll go on the record.

Welcome to today's evidentiary hearing on the Application for Certification of the Calico Solar Project. Today is September 20th. This is the sixth day of evidentiary hearings on this project.

My name is Anthony Eggert, and I am the presiding commissioner for this case. I am joined to my far left Commissioner Byron, who is the associate member associate commissioner for this case; to my right Mr. Paul Kramer, who is the hearing officer who will be presiding over today's hearing; and to my left advisor Lorraine White.

Before I do introductions, I just want to thank everybody. It has been a long road thus far. As I said, this is the sixth day of evidentiary hearings. And I particularly want to thank all of the parties that are involved in preparing for today's evidentiary hearing. I know it's been a challenging schedule.

Particularly, I want to thank the filings from all parties, including the applicant; and I especially want to thank the CEC staff, who I think have done a Herculean job of processing that information in an amazingly short period of time doing, I think a really, really good job of looking at all of the issues that are

1 related to the proposed changes to the project. And, of  
2 course, we'll hear a lot more about that today.

3 Let's see. I think I'd like to -- unless  
4 Commissioner Byron wanted to have any opening comments --  
5 no. Okay. We'll go ahead and take introductions starting  
6 with the applicant.

7 MS. FOLEY GANNON: Ella Foley Gannon, counsel to  
8 applicant. To my left is my co-counsel Allan Thompson,  
9 and to my right is Felicia Bellows from Tessera Solar, the  
10 applicant.

11 PRESIDING MEMBER EGGERT: CEC staff.

12 PROJECT MANAGER MEYER: Hello. Christopher  
13 Meyer, Energy Commission project manager. To my immediate  
14 left I have Chris Huntley, biologist with the Energy  
15 Commission, and going -- continuing to the left we have  
16 Steve Adams, staff counsel; I have Scott White, CEC  
17 biologist, and joining us as well, we have Chris Otahal  
18 with Bureau of Land Management as a biologist.

19 PRESIDING MEMBER EGGERT: Okay. So next,  
20 actually before I go to the intervenors, any other  
21 representatives from the federal agencies that are here  
22 either in the room or on the phone or any other state  
23 agency representatives?

24 MS. JONES: Becky Jones, California Department of  
25 Fish and Game.



1           PRESIDING MEMBER EGGERT: Thank you, Ms. Jones.  
2           Okay. Intervenor CURE?

3           MS. MILES: Loulena Miles on behalf of CURE. And  
4 Scott Cash on is here expert biologist for CURE. And  
5 Dr. David Whitley is on the phone I believe, and he will  
6 be testifying on cultural resources on behalf of CURE.

7           PRESIDING MEMBER EGGERT: Defenders of Wildlife?

8           MR. BASOFIN: Joshua Basofin on behalf of  
9 Defenders of Wildlife. And Jeff Aardahl will be  
10 participating by phone at the appropriate time.

11          PRESIDING MEMBER EGGERT: Okay. Basin and Range  
12 Watch?

13          No. Either Laura Cunningham, Kevin Emmerich?  
14 Okay.

15          Sierra Club?

16          MR. RITCHIE: Travis Ritchie with the Sierra  
17 Club.

18          MS. SMITH: Gloria Smith, Sierra Club, on the  
19 phone.

20          PRESIDING MEMBER EGGERT: Hello.

21          Society for the Conservation of Bighorn Sheep?  
22 Okay. San Bernardino County?

23          MR. BRIZZEE: Bart Brizzee, San Bernardino County  
24 Counsel, and I also have Roger Hathaway and Brandon Biggs  
25 on the phone.

1           PRESIDING MEMBER EGGERT:  Sorry.  Could you say  
2 the last part again?

3           MR. BRIZZEE:  Roger Hathaway, H-a-t-h-a-w-a-y,  
4 and Brendon Biggs, B-i-g-g-s, also on the phone.

5           PRESIDING MEMBER EGGERT:  Okay.  Welcome.  
6           Patrick Jackson?

7           MR. JACKSON:  I'm here.

8           PRESIDING MEMBER EGGERT:  Newberry Community  
9 Service District?

10          Okay.  BNSF Railroad?

11          MS. BURCH:  Cynthia Burch and Steve Lamb for  
12 BNSF.

13          PRESIDING MEMBER EGGERT:  Okay.  Anybody that I  
14 missed?

15          Nope.  Also, just so that everybody's -- do I see  
16 Ms. Jennings?  Is she out there?

17          We do have a Public Advisor.  I don't see her in  
18 the room yet, but if you are here as a member of public  
19 and you're interested in participating in this hearing,  
20 when she comes back in, we'll call her out, and you can  
21 talk to her about the best way to participate.

22          And similarly, for those of you on the phone,  
23 there will be an opportunity at the -- I don't know if  
24 we've noticed a specific time period, but we will provide  
25 the opportunity for public comment during the public

1 hearing, and at that time you'd be able to provide comment  
2 on this particular case.

3 I think with that, I do just want to also say  
4 that we have a lot of ground to cover today. So I want to  
5 ask everybody's cooperation in proceeding through the  
6 evidence efficiently. We're also very interested as the  
7 Committee basically hearing about the evidence as it  
8 relates to the proposed changes that the new project -- we  
9 feel that we've got evidence on the another issues, so  
10 it's really only those that are affected by this redesign.  
11 And particularly things like biology, I think also soil  
12 and water we'll be hearing a fair amount about today. But  
13 in the interests of getting through all of this, we do  
14 want to focus really on those issues that would have  
15 changed because of the modified design.

16 And I think with that, I'd like to turn it over  
17 to Mr. Kramer.

18 HEARING OFFICER KRAMER: Thank you,  
19 Commissioner Eggert. Welcome, everyone.

20 Today you'll probably find me being a little more  
21 active -- activist, because we're going to be trying to  
22 produce a product very soon, and while I hope I have in  
23 mind everything I need to know to be able to do that,  
24 chances are we're going to have to ask many follow-up  
25 questions and break in more often than as my normal style

1 just to make sure that we have everything we need in the  
2 record.

3 Let me invite the parties to, starting with  
4 applicant, to make any opening sort of overview statements  
5 if they want to to put everything in context.

6 MS. FOLEY GANNON: Thank you, Hearing Officer.

7 I guess one point that, maybe to follow up on  
8 what you were saying, Commissioner Eggert, our plan was  
9 going forward to be really focused on specifically the  
10 changes related to the scenarios that were presented, and  
11 that's what we had put in our motion that we filed  
12 requesting this evidentiary hearing, also request that the  
13 evidence really be related to those changes so we can  
14 hopefully get through this today.

15 And one sort of scheduling provision we'd like to  
16 raise is that our -- one of our hydrology experts,  
17 Dr. Chang, is on a cruise off of Vancouver, and he has a  
18 ship-to-shore line available at 3:00. So we would like to  
19 have him be able to testify as close to 3 o'clock as  
20 possible. So if we can try to get that. People scheduled  
21 vacations for September, end of September assuming we  
22 would be through with these proceedings. So we hope that  
23 we can accommodate that.

24 And again, I think we our plan is, and we hope  
25 that the other parties will accommodate this as well, is

1 we are also planning on relying on our written testimony  
2 as much as possible so we can flesh out the issues here,  
3 be available to answer any of your questions and the other  
4 parties' questions, but hopefully rely on a lot of what  
5 was put in our written testimony and not have to repeat  
6 that or flesh that out again.

7 HEARING OFFICER KRAMER: Well, again, you'll  
8 probably find me dragging you through some of that just in  
9 the interest of making sure I focus on the relevant parts  
10 of the your testimony.

11 MS. FOLEY GANNON: Right.

12 HEARING OFFICER KRAMER: Now, Dr. Chang, you said  
13 hydrology. Is that -- that's not the groundwater source,  
14 it's the surface hydrology?

15 MS. FOLEY GANNON: It is the surface erosion,  
16 sedimentation issues.

17 HEARING OFFICER KRAMER: Okay.

18 Staff, did you want to say anything?

19 STAFF COUNSEL ADAMS: Only perhaps that in  
20 addition to the witnesses who were introduced, Casey  
21 Weaver and Steve Allen we anticipate will be available on  
22 hydrology.

23 HEARING OFFICER KRAMER: Okay. Any of the  
24 intervenors want to make any sort of opening statement to  
25 put their concerns in context?

1 MR. JACKSON: This is Pat Jackson. I have -- I  
2 don't have an opening statement.

3 HEARING OFFICER KRAMER: Thank you.

4 Mr. Ritchie?

5 MR. RITCHIE: Sure. This is Travis Ritchie with  
6 Sierra Club.

7 I guess as an opening statement we have a few  
8 things to say. First, we would like to thank the  
9 Committee for the order that came out and just recognizing  
10 the substantial scope and scale of the impacts that a  
11 project of this size is likely to have, and we appreciate  
12 that the Committee recognized those impacts.

13 We, unfortunately, don't think that the scenarios  
14 that were brought up by the applicant are adequate to  
15 address the concerns that the Committee raised, and we'll  
16 be talking about that in more detail I'm sure; but there  
17 is still a substantial amount of impact on high-quality  
18 Desert Tortoise habitat that I don't think was avoided.

19 Also, the project didn't do anything to avoid or  
20 minimize a lot of the other biological resources and other  
21 resources that were brought up during the rest of this  
22 proceeding.

23 And in the interest of time, I don't think we're  
24 going to go over a lot of those, but I do want to  
25 highlight that there were many issues aside from Desert

1 Tortoise and biological resources that were problematic in  
2 our viewpoint, and those have not been addressed by the  
3 reduce scenarios.

4           And then just generally, that this project at  
5 this time is not ready for approval. Even with the new  
6 scenarios, it just doesn't seem like there's sufficient  
7 information in various aspects, various impacts, and given  
8 the very tight deadline of this year, which is somewhat  
9 artificially imposed by external financing deadlines, it  
10 just doesn't seem, in our view, like this is capable of  
11 get across the finish line.

12           And we understand that those deadlines are not  
13 necessarily in everyone's control here, but we don't see  
14 that as a valid justification for giving short shrift to  
15 some of these very important issues.

16           And then also just to point out that, California  
17 is on the verge right now of doing something very  
18 significant and very substantial regardless of the outcome  
19 of this individual proceeding. We're about to put a vast  
20 amount of solar thermal power out in the desert. And I  
21 think it's really going to be more than has ever happened  
22 in the history of the world. And this is a piece of that  
23 granted, but we're still moving forward with those  
24 projects. I believe Imperial was discussed this morning,  
25 you know, this applicant is still moving forward with

1 various projects. And Sierra Club appreciates that and is  
2 supportive of that concept, but with this particular  
3 project, we don't see it as being appropriate to be part  
4 of that very large development of solar resources in the  
5 desert because it just sacrifices too many things at this  
6 time.

7 And with that, I'll yield

8 HEARING OFFICER KRAMER: Okay.

9 ASSOCIATE MEMBER BYRON: Mr. Ritchie, on a  
10 lighter note, but with do like to get these things on the  
11 record, didn't you get married in the last month?

12 MR. RITCHIE: Saturday. Yeah, after tomorrow I  
13 may not be responding to your inquires as quickly.

14 ASSOCIATE MEMBER BYRON: Well, thank you for  
15 being here.

16 HEARING OFFICER KRAMER: The railroad, if you'll  
17 pardon the pun, you've flooded us with information last  
18 week, and I wonder if you could sort of set what I'm sure  
19 we're going to be hearing about drainage into context.

20 MR. LAMB: Certainly, Hearing Officer Kramer.  
21 Steve Lamb for BNSF. And so that the record is clear, we  
22 have today with us from BNSF in person here, David Miller.  
23 We have two experts, Steve Metro and Douglas Hamilton.

24 I would note for the record that while we do  
25 appreciate the incredible time constraints that have been



1 placed on staff and this Committee in dealing with this  
2 particular issue, we would, in this instance at least,  
3 agree with Sierra Club that these are artificial funding  
4 issues that should not drive the train; no pun intended.  
5 And we have a situation here where we've been provided  
6 with what we believe is a significant and radical  
7 departure from what was originally put forth as the  
8 outline and plan of this particular project.

9           There were 13 major aspects of this project that  
10 were delineated in the Application for Certification; one  
11 of them was detention basins. We'll go into this in  
12 detail, but we've been operating for months, well over a  
13 year on that concept.

14           And now we have a situation where because this  
15 Committee felt that the footprint of the project was too  
16 large for biological and cultural resources reasons, there  
17 has been a complete elimination of those detention basins.  
18 And Dr. Chang, who is I believe the expert proponent of  
19 that concept is not here live and in person to question.  
20 And while we appreciate the nature of people's vacations,  
21 we have done cartwheels to comply with the schedule, and  
22 have been unable to review everything. The comment that  
23 we provided, the deluge information, I think is  
24 interesting, because we've been trying the get information  
25 and we haven't gotten it.

1           And quite frankly, although there was a response  
2 to our request, our data request by the applicant, we  
3 asked the staff what the staff had received, because we  
4 believe that it is important both under CEQA and NEPA that  
5 we have an understanding on the record of what was  
6 considered by the staff, and we don't know that, and we  
7 find that to be very problematic. And we're prepared to  
8 go forward because obviously the committee is here, and we  
9 will do so, and we will present our evidence, but we  
10 believe that at this stage, to have this radical departure  
11 without really fully fleshing it out is really just,  
12 frankly, not appropriate.

13           Thank you.

14           HEARING OFFICER KRAMER: Okay. Anyone else?

15           MR. BASOFIN: Joshua Basofin on behalf of  
16 Defenders of Wildlife.

17           I'd like to first reiterate the Sierra Club's  
18 sentiment and thank the Committee for the order a couple  
19 of weeks ago. We are that the Committee recognized the  
20 significant impacts of this project. And I know it's a  
21 difficult task to weigh the policies of the State of  
22 California in getting online significant megawattage of  
23 renewable electricity by the target deadline and also the  
24 impacts to biological resources and other issue areas. I  
25 know that's a tremendous task, and I'd just like to show

1 my gratitude and -- for that process.

2           Although this -- the revised scenarios do  
3 alleviate some of the impacts to the core density of  
4 Desert Tortoise on the project site, unfortunately they  
5 don't alleviate some of impacts to the corridors. And  
6 that is what Mr. Aardahl has submitted his written  
7 testimony on. That's the north-south movement of the  
8 bighorn sheep, potential north-south movement of the  
9 Desert Tortoises, and we'll be submitting evidence on  
10 those issues today.

11           And I think that's all I'll say for now. Thanks.

12           HEARING OFFICER KRAMER: You're corridor concerns  
13 are about the north-south and not the east-west corridor  
14 then; is that right?

15           MR. BASOFIN: That's right, as of now, correct.

16           HEARING OFFICER KRAMER: And you're basically  
17 saying that nothing changed effectively with this change.

18           MR. BASOFIN: Right.

19           HEARING OFFICER KRAMER: Okay. Since we have  
20 till 3 o'clock for Dr. Chang.

21           MS. MILES: Excuse me, Mr. Kramer, could I also  
22 provide a brief statement on behalf of CURE?

23           HEARING OFFICER KRAMER: Oh, go ahead, sure.

24           MS. MILES: I would like to echo the sentiments,  
25 with out reiterating them, of Sierra Club and Defenders of

1 Wildlife regarding, you know, being grateful to the  
2 Committee for seeing and identifying, recognizing the  
3 significance of the impacts to Desert Tortoise in this  
4 project. And also I note that in the order it did say  
5 that there -- that you were cognizant of the fact that  
6 cultural resources were not fully fleshed out at the point  
7 that we were at in last evidentiary hearing, and so I just  
8 want to state that we are still very concerned about the  
9 number of questions that are unresolved with regard to  
10 cultural resources, and I think you'll get a sense of our  
11 concerns through our testimony today and in the written  
12 testimony that we submitted.

13           And I'd just like to also state that the Staff  
14 Assessment that came out on Friday at out about 4:45 p.m.,  
15 which was almost, I don't know, 150 pages, something like  
16 that, it's extensive Staff Assessment, and we appreciate  
17 staff's effort in putting that together; however, no party  
18 has been -- has had time to meaningfully review that  
19 document. And so we don't think that the evidentiary  
20 record should be closed today. We think that, in fact, we  
21 should be given an opportunity to review that document and  
22 provide testimony on the staff's analysis. And I know the  
23 Commission regulations provide for no sooner than, I  
24 think, 14 days before evidentiary hearings is when the  
25 Staff Assessment should be released. And that can, of

1 course, be modified by the Committee, but we think that  
2 this -- you know, having that come out on Friday at the  
3 end of day and is an abuse of the process. So I just  
4 wanted to go on record with that.

5 And finally, I would like to request if you could  
6 provide sort of an outline of what topics we're going to  
7 go over today and in what order, I'd really appreciate  
8 that.

9 Thank you.

10 HEARING OFFICER KRAMER: Okay. Any other  
11 statement before I do that?

12 MR. BRIZZEE: Yes. Bart Brizzee from  
13 San Bernardino County.

14 HEARING OFFICER KRAMER: Go ahead, Mr. Brizzee.

15 MR. BRIZZEE: Thank you.

16 Yeah, we submitted evidence on Friday also, and I  
17 think it's a cross-over between visual and cultural  
18 resources, and we just wanted to give the committee sort  
19 of a quick overview on what the nature of that is.

20 The documents so far have established that you've  
21 got a historic corridor through there by virtue of  
22 Route 66 that cannot be mitigated, the impacts cannot be  
23 mitigated. And our department of public works is  
24 submitting a proposal to mitigate those impacts, and it's  
25 basically to upgrade the historic bridges that have

1 traditionally been through there. And since you can't  
2 mitigate the visual impacts, you have to do it in another  
3 ways, and that's our proposal.

4 HEARING OFFICER KRAMER: Are you going to talk  
5 more about that today?

6 MR. BRIZZEE: Yes.

7 HEARING OFFICER KRAMER: Okay. Okay. Well, the  
8 order I was thinking about was to start with biology.  
9 That's certainly one of the key topics. And then we have  
10 drainage, which in our lexicon is soil and water  
11 resources. Sounds like I need to add visual and cultural.

12 Mr. Brizze, do you have any argument to make  
13 that this affects the county fire issue?

14 MR. BRIZZEE: No, it's not related to the county  
15 fire issue.

16 HEARING OFFICER KRAMER: Okay. So we're done  
17 with that one.

18 What other topics would the parties suggest we  
19 put on the list?

20 MS. FOLEY GANNON: Hearing Officer Kramer --

21 MR. JACKSON: This is Pat Jackson.

22 HEARING OFFICER KRAMER: Okay. I think there was  
23 a lady's voice.

24 MS. FOLEY GANNON: I think that was mine.

25 HEARING OFFICER KRAMER: Oh, okay. Ms. Gannon.

1 MR. JACKSON: This is Pat Jackson.

2 HEARING OFFICER KRAMER: Okay. Ms. Gannon wilt  
3 go first, then Mr. Jackson.

4 MS. FOLEY GANNON: Hearing Officer Kramer, I  
5 guess we received the county's testimony with regard to  
6 the visual resource impacts, and we believe that that is a  
7 matter which is not at all affected by these scenarios,  
8 and this is testimony and evidence which -- on an issue  
9 which has been before the Committee for quite some time  
10 about the visual impacts associated with the project. And  
11 this is completely new evidence and completely new  
12 mitigation measures. And we object to the introduction of  
13 that evidence at this time.

14 HEARING OFFICER KRAMER: Do you want to respond,  
15 Mr. Brizzee?

16 MR. BRIZZEE: Yes. I believe we can make an  
17 offer of proof at the appropriate time as to the reason  
18 for the Commission -- Committee to consider this. And I  
19 haven't moved to have the evidence submitted yet, so --

20 HEARING OFFICER KRAMER: Does anybody else have  
21 anything on -- relating to visual that they would want to  
22 talk about?

23 MR. LAMB: Well, this is Steve Lamb for BNSF.  
24 If the issue --

25 HEARING OFFICER KRAMER: Let me stop you.

1           On the phone, are you folks hearing Mr. Lamb  
2 okay, because to my ears it doesn't sound like his  
3 microphone is working terribly well.

4           MR. BRIZZEE: I hear him.

5           HEARING OFFICER KRAMER: Okay. Good. We get  
6 that phenomena here in our room sometimes.

7           MR. LAMB: I just want to state for the record  
8 that the issue is timeliness, this -- we shouldn't be here  
9 today because the evidence was closed here. So if that's  
10 the issue in relation to San Bernardino, then none of the  
11 procedure we've been following today is appropriate. And,  
12 frankly, I'm astounded that the applicant would raise that  
13 as an objection, giving the lack timeliness and the  
14 material that they've submitted in this proceeding.

15           HEARING OFFICER KRAMER: Okay. Mr. Jackson, were  
16 you on visual or something else?

17           MR. JACKSON: This is Pat Jackson.

18           Within a week or so ago, I vetted a letter for  
19 the applicant to consider the designated open routes, both  
20 scenarios, still proposed to close TDC open roads. Those  
21 issues, the issue of access and perimeter road have not  
22 been addressed. For the record, I would also like to go  
23 along with Mr. Lamb in stating that there's been almost  
24 insurmountable evidence submitted in a short period of  
25 time, and it is not appropriate to rush through this



1 evidentiary hearing process without all the parties having  
2 the opportunity to review, consider, and comment on that  
3 evidence.

4 Thank you.

5 MS. BURCH: Mr. Kramer, if I could bring up one  
6 other topic. Cynthia Burch for BNSF.

7 We find the changes to hydrology have  
8 significantly impacted our ability to process any  
9 questions to do with respect to access across our  
10 properties. We've identified those in our declarations.  
11 So that's traffic and transportation. But we weren't  
12 going to speak about them individually today except to say  
13 that we just can't process those until we know how we're  
14 going to deal with hydrology.

15 HEARING OFFICER KRAMER: Could you maybe be a  
16 little more precise -- or let me ask, are you saying that  
17 until you understand the exact drainage patterns, you  
18 can't determine where access could be?

19 MS. BURCH: That is correct.

20 HEARING OFFICER KRAMER: Now, till today you were  
21 not talking about creating any new access for any of the  
22 parcels aside from the bridge, correct?

23 MS. BURCH: No, there are actually four requests  
24 before BNSF.

25 One is for an at grade or -- one is for a grade

1 separation, which we're calling the bridge, which will  
2 require us to site that bridge somewhere based -- and one  
3 of the major issues will be its -- the impact of hydrology  
4 on this project on that location.

5           A second request was to use our right of way  
6 north of our track. It's about a mile and a half to two  
7 miles of right of way, and they propose to use it  
8 beginning in October of this year, as soon as this is  
9 certified, to begin to set up their exclusionary fencing.  
10 And they will be driving trucks down our right of way and  
11 other vehicles. And that's a second request.

12           A third request is that we build an at-grade  
13 crossing, a temporary at-grade crossing as soon as  
14 possible so that it can be used in lieu of that path  
15 across the northern tracks, side of the tracks, and that  
16 would be in the right of way, on both sides of the right  
17 of way.

18           A fourth request is that they go across our  
19 tracks and our right of way for emergency access to Parcel  
20 1. It is the access that the fire departments have  
21 requested.

22           So we have four different requests that require  
23 us to understand what the hydrology is going to be at the  
24 site. And we have witnesses here to discuss it if  
25 necessary.

1 HEARING OFFICER KRAMER: Okay. Are there any  
2 other witness time constraints that we should take into  
3 account?

4 MR. BASOFIN: Mr. Kramer, I'd just like to give a  
5 heads-up. Mr. Aardahl is currently in another meeting for  
6 the afternoon, and so if could have a heads up as to when  
7 the intervenor biology panel is going to take place and be  
8 able to tell him just at least a few minutes beforehand,  
9 that would be very helpful.

10 HEARING OFFICER KRAMER: Okay. So he just needs  
11 a little advanced notice.

12 MR. BASOFIN: Correct.

13 HEARING OFFICER KRAMER: Okay. Any others?

14 Anyone on the telephone who's a witness have any  
15 time constraints we need to be aware of?

16 MS. MILES: Similarly, if you could give me just  
17 a little advance notice for cultural then, since that --  
18 it looks like that's probably going to come toward the  
19 end, I'd prefer to not have Dr. Whitley wait the entire  
20 hearing if possible.

21 HEARING OFFICER KRAMER: Okay. We'll know in a  
22 minute. My thought was we would start with biology.

23 Mr. Brizzee, do you have -- I think you said had  
24 you witnesses on visual?

25 MR. BRIZZEE: Yes, that's correct. Two witnesses

1 HEARING OFFICER KRAMER: Okay. Do they have time  
2 constraints, because I think we have a threshold question  
3 about whether we're going to hear it or not, and we could  
4 perhaps resolve that now and then move -- how long do you  
5 estimate it will take them to testify?

6 MR. BRIZZEE: I think their testimony is fairly  
7 well summarized in the report, so I was going to make  
8 them available for cross-examination, but I think one of  
9 them can address the timing issue on why this issue is  
10 coming forward now.

11 HEARING OFFICER KRAMER: Okay.

12 MR. BRIZZEE: So I'd so say no more than 10, no  
13 more than 10 minutes.

14 HEARING OFFICER KRAMER: Okay. Well, why don't  
15 we start with visual then, then go to biology, then to  
16 soil and water. And we'll suspend biology if we need to  
17 at 3 o'clock. And then cultural and then traffic. And I  
18 believe those are all the topics we identified.

19 We are certainly as a Committee open to opening  
20 up others if the need occurs to us, because like some of  
21 you, we are -- you know, we have not fully absorbed these  
22 materials. And so I think in almost all cases a brief  
23 summary of what the testimony covered and its conclusions  
24 would be appropriate for -- probably for the benefit of  
25 everyone else.

1           So, Mr. Brizzee, if you wish to address the  
2 objections as to timeliness and that -- it does not appear  
3 to be any connection between the proposed changes to the  
4 project and this additional visual evidence, go ahead and  
5 do that, and then we will rule on whether we should accept  
6 evidence in the visual topic.

7           MR. BRIZZEE: Certainly. In fact, one of our  
8 witnesses is Roger Hathaway, who is a cultural specialist  
9 with the county, who came forward with this evidence and  
10 information. And actually, there are two aspects of  
11 Mr. Hathaway's testimony, and he can correct me if I state  
12 this incorrectly.

13           The first is that there are some evident mistakes  
14 or errors in the Supplemental Staff Report Number 2 on  
15 visual and cultural resources. And I believe that he has  
16 directly been in touch with Staff to bring about those  
17 corrections, and to my knowledge Staff does not object to  
18 making those factual corrections in the record.

19           Is that right, Mr. Hathaway?

20           MR. HATHAWAY: Yes, that is correct. There is  
21 evidence that errors and/or omissions are, in fact, in a  
22 manner of speaking tied to the visual in this instance,  
23 because the suggested changes by the county with regards  
24 to visual are based entirely on the findings or the errors  
25 and omissions in the cultural report. That sounds a

1 little confusing, but it's actually fairly  
2 straightforward.

3           Let me address probably the biggest question that  
4 was brought up, and that is why the county is providing  
5 this information at this point in time. There are several  
6 reasons.

7           The first is that I work for the Department of  
8 Public Works as a cultural resources specialist, and  
9 believe it or not, I don't want to offend anyone, but I  
10 was until about three weeks ago, two and a half, three  
11 weeks ago I was entirely unaware that the Calico Solar  
12 Project existed. As astounding as that may seem, I  
13 have -- it's a big county, and I'm the only person doing  
14 this type of work for the entire county for the Department  
15 of Public Works. So I have many, many other projects.

16           I was made aware of the Calico Solar Project in a  
17 conversation that I had with National Park Service staff  
18 regarding a proposed project that the county has for the  
19 replacement of a failed bridge right near the town of  
20 Daggett. The county is proposing to replace that failed  
21 bridge with a timber trestle kit bridge, which is a brand  
22 new concept. Therein lies why the county is intervening  
23 with this information at this point in time.

24           Number one, I was entirely unaware of the  
25 project. To my knowledge, the preparer, the consultant

1 preparer, not staff, not CEC staff, but the consultant  
2 preparer of the cultural resource language to my knowledge  
3 did not contact public works, which is a little curious  
4 because public works actually operates, maintains, and is  
5 responsible for keeping the road open. And public works  
6 has a rather large amount of information on the road just  
7 on a general basis, much less the historical.

8           So that's one of the reasons that the county  
9 was -- at least, public works was unaware that this  
10 project was going on and that it might have an effect on  
11 the county-maintained portion of National Trails Highway  
12 or old Route 66.

13           So there are two reasons there. One, I was  
14 unaware of the project, was not aware of it until I talked  
15 with National Parks Service staff too, the preparer, the  
16 consultant preparer did not contact, to my knowledge, the  
17 Department of Public Works.

18           And number three, and this the real key here, is  
19 that this timber trestle kit bridge, which is included in  
20 the evidence provided or the material provided by county  
21 counsel very recently, the concept of using a timber  
22 trestle kit bridge did, in fact, develop during the months  
23 of March, April, and May of this year -- or February,  
24 actually February through April of this year. And we did  
25 not really receive plans for our proposed timber trestle

1 kit bridge until I believe it was July, just a couple of  
2 months ago. And so all the pieces of the proposed puzzle  
3 to mitigate really weren't there until really a couple of  
4 months ago. So that's why the information regarding  
5 visual didn't come earlier on.

6 Now, the visual impacts are something that Park  
7 Service staff -- I started to think about, and as naive as  
8 I am, I thought that this was a win-win situation for all  
9 parties involved.

10 As a form of mitigation, receive monies to  
11 replace those failing timber trestle bridges within the  
12 area -- within the reach, the very narrowly-defined reach  
13 visually impacted by the proposed project from the -- so a  
14 cash-strapped county would get some funds to actually do  
15 something good for a national registered eligible  
16 resource. And then here's where I guess I may have been  
17 really naive is that in thinking that the proponent would  
18 think this was a pretty great idea simply because --  
19 (phone connection breaking up) -- it will probably be for  
20 those hundreds of thousands or over time millions of  
21 people that drive along one of our nation's most historic  
22 highways, Route 66 --

23 HEARING OFFICER KRAMER: I'm going to stop you  
24 there.

25 MR. HATHAWAY: -- and have their sense of feeling



1 time and place and all sorts of other buzz words impacted  
2 by a very, very large solar project.

3 HEARING OFFICER KRAMER: Let me stop you there  
4 for a minute. You need to repeat about the last 20  
5 seconds, because somebody else was making noise that  
6 effectively muted you out.

7 MR. HATHAWAY: Oh, okay. Yes, sir.

8 HEARING OFFICER KRAMER: Hold on.

9 And other people telephone, if you could mute  
10 yourself if you have noise in your vicinity, we would  
11 really appreciate it; otherwise, we do it to you and then  
12 we may not notice when you want to speak.

13 Go ahead.

14 MR. HATHAWAY: Back up.

15 I had thought that this proposal would have been  
16 viewed in -- it is viewed with great favor by the  
17 Department of Public Works as a means of getting some much  
18 needed funds to replace some bridges along Route 66 that  
19 are failing. I probably -- and I thought the proponent  
20 would think this was also a particularly good idea because  
21 for all time, for the next -- I don't know how many years  
22 the project is going to be there, but 30 to 50 years, all  
23 those people that have their -- drive along Route 66 from  
24 all over the world, whether hundreds of thousands or  
25 millions of people, the proponent can then say, look,

1 here's what we did, we paid to have the visual -- the  
2 visual character and quality of Route 66 restored by the  
3 installation of these unique timber trestle kit bridges,  
4 which really do make the appearance of the alignment  
5 pretty much look a lot more like it was when it was first  
6 built in 1929, in this case 1929, not the 19- -- you know,  
7 not the mid-thirties or the late thirties as the report  
8 says, that as it looked originally when it was first built  
9 as Route 66.

10           And this is a concrete visual means of mitigating  
11 a visual impact, which is almost, to my knowledge, unique  
12 in mitigating visual impacts for transmission lines, for  
13 railroad fly-overs, for all sorts of other things. Visual  
14 impacts are notoriously hard to actually mitigate, and  
15 this represents a possibly unique, at least to my  
16 knowledge, way to mitigate with a visual improvement to an  
17 historic resource rather than just talking a bunch of  
18 pictures as are currently recommended in the staff report.

19           Pictures are nice, but this current proposal to  
20 replace the failing timber trestle bridges that have been  
21 massively altered, not as the reports say, that have  
22 historic integrity. All of these bridges have, in fact,  
23 been massively altered from the mid-1940s to the  
24 mid-1950s, and make them look a lot more like they did  
25 originally.

1           So the way that I had envisioned this was it was  
2 a completely unique opportunity. And I, once again, and  
3 I'm -- somewhat naively, that I thought all parties  
4 involved would believe to be and, in fact, support as a  
5 unique out-of-the-box means of doing something truly  
6 remarkable.

7           And I have any evidence or backup that you would  
8 like to know about with regards to the alterations and the  
9 errors and omissions in the existing historical  
10 documentation that are, in fact, simply because the  
11 information provided to CSTEK staff has to have been in  
12 error.

13           HEARING OFFICER KRAMER: Okay. So you were not  
14 sworn as a witness yet in this proceeding, right?

15           MR. HATHAWAY: Not yet, sir.

16           HEARING OFFICER KRAMER: Okay. Well, we're still  
17 trying to get to the threshold question of whether we  
18 should accept this testimony.

19           MR. HATHAWAY: Hopefully I answered that, sir,  
20 with the -- with that this is absolutely new information,  
21 the concept of using these timber trestle bridges wasn't  
22 thought of until really several months ago or earlier this  
23 year, at the very earliest in the spring. The information  
24 that we could have provided for this really wasn't  
25 gathered by the Department of Public Works until July and,

1 to my knowledge, really the historical nature and quality  
2 of this project wasn't really well known at public works  
3 until just when it was brought to my attention three weeks  
4 ago by National Parks Service staff.

5 HEARING OFFICER KRAMER: Okay.

6 MR. HATHAWAY: That answers the question as to  
7 why the county is responding or submitting information at  
8 this late date. In reality, the county submitted the  
9 information in as expeditious a manner as possible once  
10 the errors and problems with the existing cultural report  
11 were known to the County.

12 HEARING OFFICER KRAMER: Okay. So what you're  
13 asking is -- I assume you're asking for some help from the  
14 applicant to finance this project; is that correct?

15 MR. BRIZZEE: That is correct.

16 HEARING OFFICER KRAMER: Okay. I'm actually  
17 having a hard time, Mr. Brizzee, trying to find this  
18 testimony. What date was it emailed out?

19 MR. BRIZZEE: It was submitted on the 17th.

20 HEARING OFFICER KRAMER: And what does the county  
21 believe the applicant's appropriate share of the cost  
22 would be for this?

23 MR. BRIZZEE: These two witnesses can correct me  
24 on this also, but I believe there's seven of these timber  
25 bridges within the project boundaries. And the

1 replacement cost of each of these is \$300,000. And  
2 Mr. Biggs is available to testify and confirm that.

3 MR. BIGGS: That's correct. This is  
4 Brendon Biggs with the county public works. That's a  
5 correct statement.

6 HEARING OFFICER KRAMER: Now, the impacts that  
7 were identified by staff were an effect on the sort of  
8 visual vista, if you will, or the visual aura that goes  
9 with being on Route 66. Are you suggesting that this  
10 would somehow mitigate those impacts?

11 MR. HATHAWAY: I'm suggesting that, sir, that it  
12 would -- I don't believe that -- I don't want to take a  
13 position not fully knowing what staff, CEC staff thinks  
14 about this, but I doubt that you can mitigate to a point  
15 of less than significance, and that was, I believe, the  
16 final conclusion in the staff report.

17 However, this form of mitigation, the proposed  
18 use of the timber trestle, the new fully-engineered timber  
19 trestle bridge, which restores the highway's historic  
20 appearance is an infinitely better, at least in my  
21 personal opinion -- I've been doing this type of work for  
22 over 30 years -- that is a far better means of mitigation  
23 than just essentially taking a bunch of pictures. It has  
24 the opportunity to literally improve the visual landscape,  
25 the at-grade viewshed that drivers along Route 66 --

1 historic Route 66 see. It will substantially restore it  
2 back to what it looked like originally, and yet will read  
3 as a new -- again, in following with the secretary of  
4 interior's guidelines, these bridges will read as new  
5 while substantially restoring the actual visual landscape  
6 or the above-grade vistas of the driver along Route 66.

7           So in my opinion, this -- personal opinion, this  
8 is an infinitely better means of mitigation than the  
9 current proposed mitigation of simply taking a bunch of  
10 pictures, and large format pictures, you know,  
11 notwithstanding.

12           You may have to take some pictures anyway, but  
13 the bottom line is that this type of mitigation is --  
14 would be almost unique in the country because I don't know  
15 of any other project -- I tried to find out, you know,  
16 looking online where the visual or adverse effects of any  
17 proposed large-scale project, power line, et cetera,  
18 could, in fact, be mitigated by visually improving the  
19 National Register resource that was being adversely  
20 affected or impacted.

21           And so this is admittedly out-of-the-box  
22 thinking, but I believe it's creative and is a solution  
23 that would probably be of benefit to the proponent  
24 throughout time simply because it would be -- a person  
25 could, in fact -- the proponent could, in fact, basically

1 say we are -- we have mitigated, we've gone to the end of  
2 the line to mitigate as best we can this important  
3 historic resource. That's it.

4           The other thing is, is that -- please don't  
5 separate this out -- that the actual report, the Staff  
6 Assessment Part 2, does contain serious errors in fact,  
7 and so that -- with regard to the actual cultural  
8 resource. And I would happy to provide additional  
9 information to correct those errors in fact as necessary.  
10 But the effect -- but it does remain that there are errors  
11 in fact.

12           The other problem is that the county does not  
13 contend that these -- all of these bridges are  
14 individually eligible to the National Register, quite the  
15 opposite. We believe that the fact that all of the  
16 bridges have been massively altered makes it so that those  
17 bridges cannot be regarded as having individual historic  
18 significance. That doesn't mean that the alignment is not  
19 significant, but that the individual bridges cannot be  
20 regarded as historically significant.

21           So that's it. There are a number of different  
22 sort of layers here, but in reality it's pretty  
23 straightforward. It's a matter of the county did not  
24 intend to delay until the last minute. I made management  
25 at the county, at public works and much higher level aware

1 that there were these problems that existed. And county  
2 counsel acted at the request of public works to make the  
3 CEC aware of these errors and to provide what public works  
4 regards as a very creative means of mitigating the  
5 proposed project. Probably unique in the country.

6 That's it. That's pretty much it.

7 Bart, Mr. Brizzee, did I -- should I clarify  
8 anything else?

9 MR. BRIZZEE: No.

10 Hearing Officer Kramer, I think you've heard both  
11 the argument for allowing the evidence as well as the gist  
12 of what the evidence is.

13 HEARING OFFICER KRAMER: Well, do you want to  
14 take one more shot at spinning the nexus for me, and then  
15 we'll get to the applicant and staff and see what their  
16 responses are.

17 MR. BRIZZEE: I'm sorry. I didn't hear that  
18 question.

19 HEARING OFFICER KRAMER: If you can take one more  
20 shot at explaining the nexus.

21 What I'm confused by is this seems to be talking  
22 about making the, if you will, the resources that are  
23 being affected by the project more, well, attractive and  
24 bringing them back to where they were, but doesn't -- how  
25 exactly this is going to mitigate the impacts of the



1 project is still uncertain in my mind.

2           And while it may be appropriate to -- and I think  
3 generally we would consider new methods of mitigation that  
4 are discovered later in the process, if it's -- if it  
5 doesn't even have that feature, I really am wondering why  
6 the Committee should be considering it especially at this  
7 late time.

8           MR. BRIZZEE: All take one more crack at it.

9           The project is going to forever, or at least for  
10 the life of the project and probably forever, visually  
11 impair what has been a historic visual scene associated  
12 with Route 66. There is no mitigation that can bring that  
13 to a level of insignificance. There is, however, an  
14 ability to mitigate the historical nature of the resource,  
15 and this is the -- by putting in the historic bridges, at  
16 least we preserve that have aspect of the historic  
17 resource where the visual impact has been impaired  
18 essentially beyond the ability to mitigate it.

19           HEARING OFFICER KRAMER: And this would be done  
20 at a cost of -- I'm doing this in my head -- \$5 million  
21 roughly?

22           MR. BRIZZEE: 2.1. It's \$300,000 per bridge for  
23 seven bridges.

24           HEARING OFFICER KRAMER: Oh. Seven bridges,  
25 okay. I thought I heard seventeen earlier.

1 MR. HATHAWAY: Roger Hathaway again, sir.

2 There's one other bit of information. This  
3 second ditch bridge project that's referred to in the  
4 material provided by county counsel is a pilot bridge  
5 replacement project, and the County of San Bernardino  
6 proposes to replace all of the failing bridges along  
7 Route 66 between Daggett and the Mountain Springs Road  
8 exit on the I-40 with similar bridges. So it's -- so the  
9 area adversely impacted by the Calico Solar Project would  
10 be a portion of a much larger project that the county  
11 plans. And it would be -- given the fact that the county  
12 plans to replace 130 of these bridges rather than just 7,  
13 a part --

14 HEARING OFFICER KRAMER: I think we got the  
15 point.

16 MR. HATHAWAY: -- toward your whole.

17 HEARING OFFICER KRAMER: Are you about to explode  
18 there? What is that noise in the background; or is that  
19 just one of --

20 MR. HATHAWAY: Brendon and I are in an office.  
21 We're now probably the only people in our building because  
22 there is a fire drill going on.

23 (Laughter.)

24 HEARING OFFICER KRAMER: You're going to get in  
25 trouble.

1 MR. HATHAWAY: I know. If I'm not in trouble  
2 already for thinking out of box, I'll be in trouble now.

3 HEARING OFFICER KRAMER: Staff, did you want  
4 respond to this at all?

5 PROJECT MANAGER MEYER: Just a clarifier really  
6 quickly. It sounds like this is a cultural resource issue  
7 and the visual landscape of a cultural resource issue  
8 rather than a visual issue, so I think if everyone sort of  
9 agrees that we'll focus this as a cultural issue rather  
10 than a cultural and visual issue.

11 And we do have cultural staff here, and they can  
12 come up and kick me if I'm wrong, but sort of my initial  
13 impression is that the -- if the concern is the  
14 increasing -- the original nature of bridges along  
15 historic Route 66 and there's a concern about the project  
16 degrading the visual, the vista, that it may make more  
17 sense to focus any -- you know, we're not saying we're  
18 going to take a position on this at this point, but any  
19 enhancement of Route 66 might make sense in an area that's  
20 already more un- -- this isn't developed -- impacted by  
21 development. So if there's a more in tact historic area  
22 of Route 66, it might make sense to focus mitigation in  
23 that area rather than increasing the visual quality in an  
24 area that we recognize is going to be impacted, if that  
25 makes sense.

1 MR. HATHAWAY: Brendon can answer this, or I can.

2 The county has 130 of these different timber  
3 trestle bridges that were built between 1929 and '31.  
4 They're all basically 80 -- about 80 years old, or 80-plus  
5 years old. They're all in to one degree or another  
6 failing.

7 And the county will ultimately replace all of  
8 them. And any suggestions as to whether the money -- if  
9 the mitigation monies -- if they the evidence is allowed  
10 and the mitigation monies are provided as, in fact,  
11 mitigation, the county can find any number of bridges to  
12 utilize the monies to replace.

13 You know, there are other bridges that are  
14 probably in worse shape than the ones that may -- or that  
15 may be in worse shape than the ones in that particular  
16 reach visually impacted by the proposed Calico Solar  
17 Project, but we had -- for just practical purposes, we had  
18 initially proposed to keep it just to those bridges  
19 adversely impacted by the proposed Calico Solar Project.  
20 But I think any -- the county would be open to any  
21 suggestions there.

22 HEARING OFFICER KRAMER: Ms. Gannon, your turn.

23 MS. FOLEY GANNON: Thank you.

24 First off, with regard to the county being  
25 unaware of this project or these impacts, the county has

1 been an intervenor in this proceeding since May 14th. So  
2 I think that the county as a whole was aware of this  
3 project and the proposal and the analysis that's been  
4 completed. So I think that that's not really a  
5 justification for late raising of this issue, which has  
6 been a part of the project since it was originally  
7 proposed.

8           With regard to the nexus between the impact and  
9 this newly-proposed mitigation, I really don't understand  
10 it. We're talking about a visual impact from the project  
11 on a resource, and then we're talking about doing  
12 something to improve bridges. That's not going to lessen  
13 the visual impact, that's not going to have any effect on  
14 the visual impact, it will still be a significant  
15 unmitigated impact as a result of the project if the  
16 project's approved and constructed. So I don't see how  
17 you can tie what they're requesting to the impact that  
18 they're proposing to address it.

19           And at the same time that they submitted the  
20 suggestion about this mitigation measure, they also  
21 submitted the correction of saying that these bridges that  
22 they want to have the work done on are not eligible  
23 resources. So we're supposed to be using the money for  
24 mitigation for visual impacts to a cultural resource on  
25 parts of that which are not eligible. It just doesn't

1 make sense to me.

2 I don't think we're -- I understand that the  
3 desire for the county to be able to have this -- these  
4 bridges restored, I understand that they don't have the  
5 financing to do that, but I just don't see the nexus or  
6 the connection between the impact that is being addressed  
7 here. And again, it's an issue that I think should  
8 have -- we really shouldn't be spending a lot of time on  
9 today when we're talking about the new scenarios that have  
10 been proposed. And this is something that has been part  
11 of the project since it was proposed.

12 HEARING OFFICER KRAMER: Okay. If you can one  
13 more minute of your time to point us to the portion of  
14 their testimony that you believe establishes that the  
15 bridges are not eligible.

16 MS. FOLEY GANNON: It's where they're providing  
17 the corrections. This is where they're talking about the  
18 DPW concerns regarding the Supplemental Staff Assessment.  
19 I believe this is where it is.

20 PROJECT MANAGER MEYER: And, Hearing Officer  
21 Kramer, this is Christopher Meyer, staff.

22 There was a record of conservation between --  
23 forgive me, I can't remember if it's Dr. Hathaway or --  
24 Dr. Hathaway with the county and Kathleen Forest, the  
25 cultural resource staff, who wrote this section on the

1 built environment, so we docketed that record of  
2 conversation, I believe it's been distributed to parties,  
3 where Staff agrees with his characterization of it not  
4 being -- of these having been continually  
5 upgraded -- yeah, since they were originally built.

6 HEARING OFFICER KRAMER: Okay. I think I found  
7 it, Ms. Gannon.

8 MS. FOLEY GANNON: It's really -- that's the  
9 whole point of their DPW concerns regarding the  
10 Supplemental Staff Assessment.

11 HEARING OFFICER KRAMER: All right. It's on  
12 Page 1 of a sub part of their testimony called "DPW  
13 Concerns Regarding Supplemental Staff Assessment Part 2,"  
14 a date of September 13, 2010, prepared by Roger G.  
15 Hathaway. And it says -- I think if I read it, then we  
16 maybe don't have to make this a formal exhibit.

17 "DPW does not contest here that NTH/Route 66 may  
18 be eligible to the National Register of Historic Places,  
19 however, DPW staff suggest that consideration be given to  
20 the possibility that while the alignment may be eligible  
21 to the NRHP, that the individual timber trestle bridges  
22 associated with the NTH/Route 66 alignment are not  
23 individually eligible to the NRHP."

24 Given that, which suggests that, if anything,  
25 that the -- well, it says nothing about the visual effects

1 on the alignment. And I gather that -- let me ask  
2 Ms. Gannon, was the applicant intending to present any  
3 additional evidence on visual to the effect that the  
4 reduction in the project size will change the magnitude of  
5 that impact?

6 MS. FOLEY GANNON: We were not. We provided  
7 written summary testimony, and we can make the expert  
8 available, but we don't have any -- we didn't have any  
9 intention of presenting that live.

10 HEARING OFFICER KRAMER: Okay. But what was the  
11 effect of that testimony? Were you arguing --

12 MS. FOLEY GANNON: There is no significant  
13 reduction, it's the same.

14 HEARING OFFICER KRAMER: Same impact, cumulative  
15 impact.

16 MS. FOLEY GANNON: Same cumulative impact,  
17 correct.

18 HEARING OFFICER KRAMER: Well, given that, and  
19 given that it appears that the -- by the county's own  
20 testimony that the bridges are not historic resources,  
21 there does not appear to be any -- or the purported  
22 testimony does not appear to be relevant, especially at  
23 this late stage. Earlier on it may have been considered,  
24 but now we are simply looking for evidence that helps us  
25 understand what has changed in -- by way of the previous



1 evidence because of the change in the footprint of the  
2 project. And this would not qualify as such evidence, so  
3 we will deny the proffer of proof --

4 MR. HATHAWAY: If I may -- if I may -- if I may  
5 interject there.

6 I suggest that you caucus with CEC staff, because  
7 what the proponent suggested to me at least appears to be  
8 a rather large misunderstanding of the secretary of the  
9 interior's guidelines for historic preservation and the  
10 way one treats linear resources. What the county is, in  
11 fact, proposing is to -- is -- it's as if you have a  
12 district of a thousand craftsman homes and there are  
13 probably three hundred in those thousand that are, in  
14 fact -- look like and a 1950s stucco boxes, and that  
15 the -- to improve the proposed district, design guidelines  
16 are put into play, under the secretary of interior's  
17 guidelines, to replace those two- three hundred stucco  
18 boxes with craftsman-style homes, you know, similar or  
19 referencing the craftsman style over time to improve the  
20 adverse effects of time to that national registered  
21 district.

22 The fact that the individual bridges are not  
23 individually eligible to the National Register does not  
24 make the entire alignment not eligible. And it makes the  
25 improvement to those bridges just as viable, as suggested

1 by the county, even though the bridges themselves are not  
2 individually eligible.

3 In fact, I suggest that you strongly talk to CEC  
4 staff about consulting with the secretary of the  
5 interior's guidelines and -- with regards to adverse  
6 effects and what is an eligible property.

7 PROJECT MANAGER MEYER: Hearing Officer Kramer,  
8 can I just make maybe one clarification that --

9 HEARING OFFICER KRAMER: Mr. Meyer.

10 PROJECT MANAGER MEYER: My understanding is that  
11 staff's analysis, when they're talking about impacts to  
12 the viewshed of the Route 66, it's Route 66 as a district  
13 basically. And those impacts, we're not looking at the  
14 impacts to the bridges, the bridges are just a component  
15 and the -- whether or not those bridges in themselves are  
16 eligible or ineligible isn't going to weigh heavily in  
17 staff's analysis because staff's analysis is looking at  
18 Route 66, you know, the whole roadbed, not just the  
19 bridges or things of that nature.

20 So I guess the way we were looking at this and  
21 the way I would look at this, again, saying that this is  
22 not -- that we've taken a position, is that if there was  
23 to be mitigation of the impact of the project on that  
24 viewshed of the roadbed, of the -- this -- you know, this  
25 historic district, the bridges could fall into something

1 that could be used as mitigation to improve this historic  
2 resource that is being impacted from a visual standpoint.

3 And not -- we're not looking at saying, okay, you  
4 have to impact a bridge to mitigate somewhere else on a  
5 bridge, it's just Staff recommended doing some mitigation  
6 to address the fact that there was this impact to Route  
7 66. So that's, I think, just not to get bogged down in  
8 bridges as an issue.

9 HEARING OFFICER KRAMER: I think that ship has  
10 sailed.

11 So what is Staff recommending precisely?

12 Mr. Hathaway, thank you, but I want to hear from  
13 somebody else for a little bit.

14 PROJECT MANAGER MEYER: Would you like me to  
15 bring up cultural resource specialist?

16 HEARING OFFICER KRAMER: Please.

17 MS. FOREST: Good afternoon.

18 HEARING OFFICER KRAMER: Good afternoon. Have  
19 you testified before?

20 MS. FOREST: I have, and I have been sworn. I'm  
21 Kathleen Forest, cultural resources staff.  
22 Whereupon,

23 KATHLEEN FOREST

24 having been previously sworn, testified as follows:

25 HEARING OFFICER KRAMER: So what is staff

1 recommending, if anything, here?

2 MS. FOREST: In regards to the bridges  
3 themselves?

4 HEARING OFFICER KRAMER: In regards to the  
5 county's proposal and the county's request.

6 MS. FOREST: I spoke with Mr. Hathaway last  
7 Monday, which I believe was the 13th, at which time he  
8 informed me that there were some errors in staff's  
9 analysis, that the information held by the county, which  
10 they received from CalTrans regarding the evolution of  
11 Route 66, including the bridges, had not been included in  
12 the information provided in the AFC apparently. So there  
13 were some discrepancies with the dates. He and I spoke  
14 about this.

15 The documentation that he has apparently states  
16 that the bridges were altered over time, and that would  
17 not necessarily make them -- that would not necessarily  
18 make them not contributing resources to the Route 66  
19 district if there was one, if that makes sense, but it  
20 does -- the discrepancy in the information, Staff believes  
21 that it warrants further evaluation at this time to  
22 determine whether or not the bridges would be contributing  
23 features to a Route 66 district.

24 Is that helpful kind of?

25 HEARING OFFICER KRAMER: Hmmm. So what would

1 Staff do to investigate this?

2 MS. FOREST: The information held by the county  
3 should have been examined and incorporated into the AFC.  
4 So I would recommend that that happen. However, even if  
5 the bridges were determined to not be contributing, it  
6 would not change Staff's -- the conclusions in the SSA  
7 regarding the impact to Route 66.

8 HEARING OFFICER KRAMER: Which again was a  
9 cumulatively significant --

10 MS. FOREST: Correct.

11 HEARING OFFICER KRAMER: And that would  
12 cumulative with what other projects? Do you recall,  
13 generally?

14 MS. FOREST: I'm sorry. I don't.

15 HEARING OFFICER KRAMER: Okay. So then does some  
16 kind of contribution towards the cost of rebuilding or I  
17 guess restoring -- let's use that word -- these bridges to  
18 their original form, is that, in your opinion, any kind of  
19 mitigation for the visual impacts that were found?

20 MS. FOREST: It's not unheard of mitigation.  
21 It's quite commonly used in the built environment. When a  
22 developer tears down one historic building, often  
23 mitigation -- a mitigation required is to restore another  
24 historic building. So it would be consistent with that if  
25 it was consistent with the secretary of interior standards

1 and the bridges were determined to be contributing  
2 resources. And staff -- obviously staff didn't think of  
3 this on their own, but they wouldn't -- it wouldn't be  
4 something we would oppose.

5 HEARING OFFICER KRAMER: Okay. Does any other  
6 party wish to add anything to this discussion?

7 MS. FOLEY GANNON: May we ask one question of  
8 staff?

9 HEARING OFFICER KRAMER: Certainly.

10 MS. FOLEY GANNON: It's a common mitigation for  
11 visual impacts, or it's a common mitigation for cultural  
12 resource impacts?

13 MS. FOREST: It's a common mitigation for  
14 cultural resources impacts.

15 MS. FOLEY GANNON: And is there a nexus, do you  
16 think, between the visual impacts and restoring a bridge?

17 MS. FOREST: I believe that's beyond my  
18 expertise.

19 MS. FOLEY GANNON: Okay.

20 HEARING OFFICER KRAMER: Okay. We're going to  
21 caucus here for a minute, go off the record.

22 (Thereupon a discussion occurred off the record.)

23 HEARING OFFICER KRAMER: Okay. We're back on the  
24 record.

25 We're struggling to and did not find a nexus

1 between the replacement of bridges or, if you will, their  
2 being upgraded, I suppose, from their current imperfect  
3 representation of the past status to a more perfect  
4 representation of the past. But the nexus between that  
5 and the visual impacts that the project, the cumulative  
6 visual impacts that the project is having on the Route 66  
7 corridor remain on unapparent to us. And for that reason,  
8 although I think we've discuss most of what would have  
9 been said in testimony, we are going to deny the offer of  
10 proof and not take -- or have any further discussion of  
11 this particular question.

12 So we will move on to biological resources then.

13 MR. BRIZZEE: Bart Brizzee from the county.

14 I would like to thank the committee for taking  
15 the time to consider this evidence.

16 HEARING OFFICER KRAMER: Thank you. Of course,  
17 that was not an admission that we actually considered  
18 evidence.

19 (Laughter.)

20 MS. FOLEY GANNON: Hearing Officer Kramer,  
21 before -- if we're going to begin with the biology, it  
22 might be useful if we introduce testimony from Felicia  
23 Bellows to just set out the scenarios that are the subject  
24 of this discussion if that would be of assistance.

25 HEARING OFFICER KRAMER: Yes. Are you going put

1 those up on the screen?

2 MS. FOLEY GANNON: We can put those up on the  
3 screen.

4 HEARING OFFICER KRAMER: Well, let's see. Okay.  
5 That means you're going to use the podium computer?

6 MS. FOLEY GANNON: We will be.

7 HEARING OFFICER KRAMER: So I will take care of  
8 making the podium the presenter. It's impossible. What  
9 are people who are on WebEx, on the phone, are you seeing  
10 anything at this point?

11 MS. SMITH: No.

12 HEARING OFFICER KRAMER: Okay. I have to make  
13 the podium the host, which makes me worried that I won't  
14 get control back, but I'm going to -- I guess that's the  
15 step I have to take. So here we go.

16 Ms. Smith, are you seeing it now?

17 MS. SMITH: No.

18 HEARING OFFICER KRAMER: Okay. Let me go help  
19 him. Let's go off the record for a minute.

20 (Thereupon a recess was taken.)

21 HEARING OFFICER KRAMER: Back on the record.

22 Whereupon,

23 FELICIA BELLOWS

24 having been previously sworn, testified as follows:

25 MS. BELLOWS: Okay. So what we've done here in



1 response to the Committee's order on September 3rd was to  
2 go back and take a look at the site and see what we could  
3 do in response to your request to look at a means of  
4 reducing impacts to biological resources, specifically to  
5 the Desert Tortoise.

6           So what we've done here is we've laid out two  
7 scenarios, and the scenarios we've labeled as 5.5 and  
8 scenario 6.

9           MS. FOLEY GANNON: And we have hard copies of the  
10 figures if anyone would like to look at hard copies, we  
11 can pass those out as well as I'd also like to remind you  
12 that Ms. Bellows did testify earlier in these proceedings  
13 and she was sworn.

14           MS. BELLOWS: So if you take a look at scenario  
15 5.5, 5.5 goes down, backs off the northern corridor even  
16 further taking the acreage down from 6,215 acres to 4,613  
17 acres giving us an overall megawatt size for the project  
18 of 663.5. And, you know, the primary impact there is that  
19 it reduces the number of Desert Tortoises impacted.

20           The other scenario is scenario 6, which takes  
21 even further cut at reducing impacts to biological  
22 resources. And here we have a reduction from the 6,215  
23 acres down to 4,244 acres, give us an overall megawatt  
24 size of 603.9 megawatts. Again, in this instance we have  
25 moved down, by our own estimates, in terms of trying to

1 get out of the 5 to 1 mitigation area completely. Okay?

2 I think the important thing to note here is that  
3 in designing the scenarios, we have not brought anything  
4 that was not already included in the analysis new into the  
5 analysis; in other words, we're within our original  
6 footprint, we've simply reduced our footprint. The only  
7 change that we have made to the project is that we have  
8 removed the detention basins from both scenario 5.5 and  
9 scenario 6.

10 The other thing, in terms of impacts to consider,  
11 is that, you know, as is included in our declaration and  
12 our expert witnesses' testimonies, we have either no  
13 change to impacts or reduction in impacts across the board  
14 on the two scenarios. And in that regard, we agree with  
15 Staff's conclusions. Staff arrived at the same  
16 conclusions, and we agree with those conclusions on  
17 impacts.

18 In addition, I think that it's important to point  
19 out the changes to the conditions. We do have changes to  
20 the compliance conditions, particularly in bio. The  
21 silver lining, of course, is that the mitigation costs go  
22 down significantly. So those are the changes on the bio  
23 side that we have noted in our testimony.

24 In addition, the other change is on the detention  
25 basins on Soil and Water 8. And on Soil and Water 8, we

1 also agree with Staff's conclusions on what is necessary  
2 on Soil and Water 8.

3 I think that's all I wanted to do in terms of  
4 introducing the scenarios.

5 HEARING OFFICER KRAMER: Okay. Now, when you  
6 talk about change conditions, are all of those changes  
7 that you are requesting summarized in the Staff's --  
8 supplemental Staff Assessment Addendum, or are there some  
9 we need to look to in your testimony?

10 MS. BELLOWS: I believe our numbers differ under  
11 mitigation because we have stuck with our manner of  
12 calculating mitigation, but I think that that's the  
13 difference.

14 I think that's it, right?

15 HEARING OFFICER KRAMER: Is it a difference of  
16 any import or --

17 MS. BELLOWS: Yes. I believe we calculate our  
18 acreage cost at \$500 an acre, and they calculated it at a  
19 thousand dollars an acre. In addition, we have different  
20 parcel size than they have recommended.

21 HEARING OFFICER KRAMER: So we still get to  
22 resolve that. But the base number of acres that need to  
23 be provided, do you agree upon that?

24 MS. BELLOWS: The number of acres, yes. And in  
25 addition, there's the phasing, our approach to phasing is

1 different than their approach to phasing.

2 HEARING OFFICER KRAMER: Do you want to explain  
3 that difference then?

4 First let me ask you, are there any other  
5 differences in the calculation of the -- I guess, if you  
6 will, the deposit for the mitigation lands, a security  
7 deposit, besides the size of the parcels you assume and  
8 the cost per acre?

9 MS. BELLOWS: I think that's it, yes.

10 HEARING OFFICER KRAMER: Okay. Then on the  
11 phasing, could you describe the differences just to put it  
12 into context for everyone.

13 MS. BELLOWS: My understanding, and Staff took --  
14 created Bio 31, that went through the phasing in a  
15 different fashion than we did. We actually dealt with the  
16 phasing in the individual condition. So our phasing is  
17 dealt within Bio 17 and Bio 13 specifically as opposed to  
18 staff dealt with it in Bio 31.

19 HEARING OFFICER KRAMER: But as far as function  
20 goes, are -- what are the differences?

21 MS. BELLOWS: The other thing we pointed out, you  
22 know, our approach to mitigation assumes that we are able  
23 to nest mitigation. So to the extent we are able to  
24 satisfy in -- with Desert Tortoise lands, also the  
25 mitigation necessary on the lizard, that it is nested and

1 dealt with in that mitigation. It was in Staff's  
2 recommended mitigation in Bio 31, it wasn't very clear to  
3 me that that was what was being done there.

4 MS. FOLEY GANNON: If we can help clarify, I  
5 think the Staff was having the default that the security  
6 was not nested, and we are proposing that the default is  
7 that it is nested until it's demonstrated that additional  
8 mitigation would be required. So it's -- the presumption  
9 is nesting is going to mitigate -- the land that's going  
10 to be acquired is going to mitigate all the impacts. If  
11 it turns out that's not true, additional security has to  
12 be provided. And Staff is it taking the opposite  
13 approach.

14 HEARING OFFICER KRAMER: Now, under the  
15 applicant's approach then, could this scenario occur where  
16 you're developing the project, you've made your deposit,  
17 your security deposit on the assumption that you're going  
18 to find lands that are -- that satisfy all the different  
19 needs, multiple use lands, if you will, and then -- but  
20 you haven't gone to identify or purchase those yet. And  
21 then for some reason you have to abandon the project, but  
22 you've already disturbed the lands that the mitigation  
23 would take care of, that could put staff then in the  
24 position, or the agencies in the position, of having to  
25 spend the amount of money that can only buy the

1 multiple-use property, but without being able to identify  
2 some of that, and, therefore, they would be, if you will,  
3 behind in that they didn't have enough money to properly  
4 mitigate the impacts of the project.

5           Would you accept that that's at least a possible  
6 scenario?

7           MS. BELLOWS: It is a possible scenario, but in  
8 terms of if you look at the actual -- what we're looking  
9 at in terms of nesting, we're looking at the lizard, and  
10 we're also looking at waters of the state. And the  
11 numbers relative to the Desert Tortoise mitigation are,  
12 you know -- are minor compared to those figures. I mean,  
13 the Desert Tortoise mitigation itself is quite large.

14           So you would think that there would be a very  
15 good chance of being able to cover that one way or the  
16 other, even if you did have that scenario arise.

17           HEARING OFFICER KRAMER: So roughly the acres for  
18 desert tortoise are how many? And then what would the  
19 corresponding number be for the lizard?

20           MR. HUNTLEY: This is Chris Huntley.

21           MR. WHITE: I have those numbers in front of me  
22 if you --

23           MR. HUNTLEY: Oh, go ahead.

24           MR. WHITE: Just, I'll do it real quickly.

25           Under scenario 5.5, the total compensation

1 acreage for Desert Tortoises would be 10,302. And under  
2 scenario 6 it would be 8,452 as staff calculates, and I  
3 think you guys agree. For the Mojave Fringe-toed Lizard,  
4 it's quite a bit less. I think it's 210 acres  
5 compensation land.

6 HEARING OFFICER KRAMER: So then, Mr. White,  
7 right?

8 MR. WHITE: Yes.

9 HEARING OFFICER KRAMER: Are you comfortable that  
10 it's very likely that the applicant is going to be able to  
11 nest in that for that?

12 MR. WHITE: Not entirely, and that's why we  
13 didn't recommend nesting with security. We do encourage  
14 and we would expect the applicant to nest the mitigation  
15 land itself, and at that point the security would be  
16 irrelevant.

17 But the Desert Tortoise and the Mojave  
18 Fringe-toed Lizard don't entirely share habitat, and  
19 certainly there is some habitat that would be occupied by  
20 one species or the other, but not both. So that was why  
21 we wanted to keep those separate. The same rationale  
22 would apply to the streambeds.

23 HEARING OFFICER KRAMER: And what -- how many  
24 acres of streambeds were required? I'm recalling roughly  
25 a hundred and some.

1 MS. BELLOWS: 152 under 5.5, and 126 under  
2 scenario 6.

3 HEARING OFFICER KRAMER: Okay. So then we're  
4 talking about, roughly -- what is the monetary amount of  
5 the difference between a non-nested security deposit and a  
6 nested security deposit roughly, using the staff's  
7 assumptions for parcel size and parcel -- or acre cost.

8 MS. FOLEY GANNON: It depends on what you add  
9 into that, because also there is like the raven  
10 management, which is another approximately half a million  
11 dollars. We had asked for that to be phased so we could  
12 pay it on a yearly basis.

13 So, I mean, if you add all -- if none of these  
14 things are nested and the staff's conditions as they were  
15 proposed were implemented, I mean, we come up with that  
16 number, you know, shortly, I don't think we have it on  
17 fingers right now, but if you take all of those numbers  
18 together, my guess is it's going to be a million, around  
19 there.

20 MS. BELLOWS: It's going to be more than a  
21 million; it's going to be somewhere -- if we take into  
22 account all the different -- the different aspects, it's  
23 going to be maybe two million, something of that  
24 neighborhood is my guess.

25 HEARING OFFICER KRAMER: Two million on



1 twenty-five million or so?

2 MS. BELLOWS: Correct.

3 HEARING OFFICER KRAMER: Okay.

4 MR. RITCHIE: Mr. Kramer, this is Travis Ritchie  
5 with Sierra Club. If I can add something on that issue.

6 HEARING OFFICER KRAMER: Go ahead.

7 MR. RITCHIE: Just that we wanted to reiterate  
8 staff's concern on -- the Mojave Fringe-toed Lizard  
9 habitat is quite specialized, and I think this project  
10 actually articulates that pretty well, and that on the  
11 original 8,000 acre footprint, all of which is potential  
12 habitat for the Desert Tortoise there were, I think, maybe  
13 a hundred or so acres of Mojave Fringe-toed Lizard. So  
14 it's far from assured that mitigation land for Desert  
15 Tortoise would include appropriate habitat for Mojave  
16 Fringe-toed Lizard, which speaks to them not being nested.  
17 I mean, if they could nest them, that's great, but until  
18 we know that, Sierra Club wouldn't be comfortable with  
19 assuming that they can be nested.

20 HEARING OFFICER KRAMER: Ms. Bellows, did you  
21 have more to add, or was that your background  
22 presentation?

23 MS. BELLOWS: That's the background presentation.

24 HEARING OFFICER KRAMER: Okay.

25 MS. FOLEY GANNON: And a procedural issue, at

1 this point should we be moving to move in her testimony  
2 and all the declarations attached to it, or do you want to  
3 do that all at the end?

4 HEARING OFFICER KRAMER: You know, what we're  
5 going to have to do is give numbers to all these things at  
6 some point.

7 MS. FOLEY GANNON: Yeah.

8 HEARING OFFICER KRAMER: Unless somebody really  
9 feels a compelling need, I think we can wait till the end  
10 to do that.

11 MS. FOLEY GANNON: Okay. Thank you.

12 HEARING OFFICER KRAMER: We'll be motivated to do  
13 it quickly, I assume, at this point.

14 (Laughter.)

15 MR. RITCHIE: Mr. Kramer, we do have some  
16 cross-exam questions for Ms. Bellows, whether this is the  
17 appropriate time or not I will leave to you, but based on  
18 her testimony and the altered footprints.

19 HEARING OFFICER KRAMER: Okay. Was that going to  
20 be all of your testimony on biology then or --

21 MS. FOLEY GANNON: This is her -- yeah, this is  
22 her -- this is not all of our biology testimony. We have  
23 our biology experts who are going to testify. This was  
24 just Ms. Bellows giving the overview of the scenarios and  
25 how we got here and some of the mitigation requirements.

1 HEARING OFFICER KRAMER: Okay. Why don't you  
2 constitute the rest of your biology panel then, and then,  
3 Mr. Ritchie, you can --

4 MS. FOLEY GANNON: I mean, because -- I would  
5 suggest because we have 15 minutes before Dr. Chang is  
6 going to be on the phone, it may make sense to do --

7 HEARING OFFICER KRAMER: Cross-exam.

8 MS. FOLEY GANNON: -- Ms. Bellows, rather than  
9 bringing up our two biology expert witnesses who are  
10 just -- I think there will be lots of questions for them  
11 probably.

12 HEARING OFFICER KRAMER: Would you agree,  
13 Mr. Ritchie?

14 MR. RITCHIE: That's fine. My questions are  
15 actually not specific to biology, they're just to the  
16 altered project and Ms. Bellows' testimony on that.

17 HEARING OFFICER KRAMER: And how long do you  
18 think you'll have about? Ten to fifteen --

19 MR. RITCHIE: Fifteen minutes should be fine.

20 HEARING OFFICER KRAMER: Okay. Go ahead, then.

21 CROSS-EXAMINATION BY MR. RITCHIE

22 MR. RITCHIE: So, Ms. Bellows, I first wanted to  
23 ask, there is, and you mentioned this, there is a reduced  
24 estimate on the number of megawatts that will be  
25 generated, correct?

1 MS. BELLOWS: That is correct.

2 MR. RITCHIE: And do you recall, in Barstow I  
3 believe your testimony in response to staff's question, is  
4 there some sort of a minimum amount of generation that was  
5 required in order for this project to be feasible, you  
6 answered, yes, or yeah, well, this particular project is  
7 sized to meet the Edison PPA, so we have an 850-megawatt  
8 PPA, and that's what the facility is sized to meet. Is  
9 that an accurate statement of your testimony?

10 MS. BELLOWS: That is correct.

11 MR. RITCHIE: So did the constraints of that  
12 850-megawatt PPA change now that you don't have an  
13 850-megawatt proposal?

14 MS. BELLOWS: They not at all.

15 MR. RITCHIE: So is it fair to say you don't have  
16 a PPA for the project as proposed?

17 MS. BELLOWS: It is not fair to say that.

18 MR. RITCHIE: Is there -- would you -- how would  
19 you characterize the scenario moving forward with the PPA  
20 with the PPA given the reduced project footprint?

21 MS. BELLOWS: We are fortunate with the Edison  
22 PPA that we have a Phase 1 and a Phase 2. Phase 2 is 575  
23 megawatts; Phase 1 is 275 megawatts. Phase 2 is dependent  
24 on Edison going through a full CPCM process, as you're  
25 aware. So at the earliest, that would come online in

1 2013, or be ready to accept megawatts in 2013.

2 So the approach moving forward is to accept the  
3 project as is, permit it, and then I will go back  
4 afterwards, between now and 2013, and try to resolve the  
5 additional megawatts either at another site or nearby.

6 MR. RITCHIE: And so I believe there was a  
7 statement you had made during workshop that essentially  
8 Phase 2 is a long way off and we can try and fix it before  
9 then. That seems to be summary of what you just said as  
10 well.

11 MS. BELLOWS: That's what I'm saying, yes

12 MR. RITCHIE: So but there's no guarantee then  
13 that you would be able to find those 850 megawatts based  
14 off what's currently proposed.

15 MS. BELLOWS: That's correct.

16 MR. RITCHIE: And so what would happen if we  
17 don't have 850 megawatts when 2013 comes around and  
18 there's a PPA that says that you're to deliver 850  
19 megawatts?

20 MS. BELLOWS: My performance bond would be taken  
21 from me for that amount of the megawatts.

22 MR. RITCHIE: And is Edison required to accept  
23 the total project size, whatever that might be, that 600  
24 megawatts or so?

25 MS. BELLOWS: It is.

1 MR. RITCHIE: And so would you be adjusting the  
2 price per megawatt moving forward?

3 MS. BELLOWS: I might try, but I don't know how  
4 successful I might be in that effort.

5 HEARING OFFICER KRAMER: Mr. Ritchie, what's the  
6 relevance of this line?

7 MR. RITCHIE: Part of the presentation that we've  
8 been given is that prior to last week was that this  
9 project was specifically sized at 850 megawatts because  
10 that was the drop-dead price that they could afford to do  
11 this project, that the PPA allowed for them to do this  
12 project, and that if we dropped below 850 megawatts, we  
13 are at risk of not having a project.

14 And so given that there are substantial resources  
15 on the line to be sacrificed for this project, I'm  
16 concerned that we don't have a viable contract for the  
17 purchase of this -- of these megawatts. If this really is  
18 that slim a margin and they can't afford to drop back 850  
19 megawatts, which I believe was the impression I got at  
20 least from Barstow, then we're putting up a lot of  
21 resources that are going to be gone forever for project  
22 that may not be financially feasible.

23 And so I think it's extremely relevant to the  
24 reduced acreage alternatives that have been put forward,  
25 and I also think that it's very different than the

1 testimony that we heard in Barstow where I believe it was  
2 Mr. Basofin specifically asked if the applicant at any  
3 time considered a smaller footprint project, and  
4 Ms. Bellows' testimony was we did not. It was really -- I  
5 mean, it really was a negotiation with Edison, and that is  
6 what we submitted in our RFP process, and that's what we  
7 negotiated with them.

8           So in Sierra Club's view, there doesn't appear to  
9 be adequate assurance that we're going to even put these  
10 megawatts online, and we're risking so much at this stage  
11 in order to do that.

12           And again, this just goes to the point that  
13 perhaps in two years we can figure this out, but we can't  
14 figure out it out right now, and we can't figure it out  
15 today, but all these resources are going on the table  
16 today.

17           ASSOCIATE MEMBER BYRON: Mr. Ritchie, this  
18 Commission in the past has permitted -- I should say we  
19 have granted applications for certification for projects  
20 that did not have Power Purchase Agreements. In fact,  
21 we've done recently one that is a solar project as well.  
22 So the logic breaks down a little bit in that regard. And  
23 I have every reason to believe the applicant was being  
24 truthful and they had not considered a smaller plan, given  
25 that that's what their original Power Purchase Agreement

1 was for.

2 In fact, these issues around Power Purchase  
3 Agreement are not necessarily relevant, although I'm very  
4 interested in them given our other responsibilities here  
5 at this Commission, there's a lot of confidentiality  
6 issues around them. And I -- and I'm -- I welcome your  
7 questioning the applicant in this regard because we learn  
8 a lot more at this Commission, but it's just not terribly  
9 relevant to this decision.

10 MR. RITCHIE: I understand your point. And  
11 setting aside the other solar project that you reference,  
12 this project is not like, say, a natural gas power plant  
13 that we would be proposing. The footprint of a natural  
14 gas power plant is dramatically smaller than something  
15 like this. So if there's not a PPA, if kicking the can  
16 down the road doesn't work, and the CPUC proceeding is  
17 hung up, the impacts are very different. You don't have  
18 carbon emissions spewing out of a natural gas plant if it  
19 never goes online, or if you shut that plant down, those  
20 emissions stop. But what we're talking about here and  
21 still with this project, is 4,000 acres at least, and it  
22 may be phased, so, you know, maybe we're just talking  
23 Phase 1, but we're still talking about thousands of acres  
24 of a resource that you can't get back. So it's a  
25 different analysis, I think, in this context than it is in



1 other power plants and other PPAs.

2 ASSOCIATE MEMBER BYRON: I understand, but -- and  
3 there are, I believe, over 9,000 megawatts of natural gas  
4 fired power plants that this Commission has permitted in  
5 the last, say, eight years, but they were not built. And  
6 I think that's the case that we would see in this  
7 situation as well. The plant would likely not be built  
8 unless they've got a market for the power.

9 MR. RITCHIE: Except that we're talking about  
10 building it by -- at least part of it by 2010. And so  
11 these resources start to be sacrificed this year. I mean,  
12 we're talking about a month. And, you know, if it falls  
13 apart, it falls apart, but this isn't something that I  
14 think we should be giving up so slightly on a what-if, you  
15 know, we'll be able to figure it out later.

16 And I'll leave it at that. I understand your  
17 comments as well.

18 MS. SMITH: Actually, Mr. Kramer, this is Gloria,  
19 can I just interject something?

20 HEARING OFFICER KRAMER: Go ahead.

21 MS. SMITH: Setting aside the issue of the PPA,  
22 we did request in Barstow a rationale for not looking at a  
23 reduced project footprint that would perhaps potentially  
24 reduce project impacts, and we were told that it wasn't  
25 feasible, and no, a reduced project could not be looked at

1 and would not be looked at because of these unknown  
2 financial and PPA constraints. And we all took that, you  
3 know, on faith.

4           And now we find ourselves here at the end of  
5 September with all of a sudden given the Committee's  
6 order, memorandum that we -- all of a sudden we can look  
7 at a reduced project. So I guess my point is perhaps if  
8 we had looked at this a year ago or six months ago and in  
9 the fullness of time been able to fully analyze it, it may  
10 have made more sense, but it wasn't just -- there was  
11 incredible pressure that the original footprint would not  
12 be approved that got them to concentrate their minds and  
13 look at a small project.

14           So we feel like, I mean, frankly, there's a  
15 little bit of unfairness here. We asked them -- they were  
16 asked in good faith a long time ago to look at a reduced  
17 project, and they said it wasn't feasible.

18           HEARING OFFICER KRAMER: Okay. Well, your point  
19 is noted.

20           So, Mr. Ritchie, did you have other questions  
21 or --

22           MR. RITCHIE: Only if I could just ask that  
23 Ms. Bellows, when I recharacterized your testimony there  
24 for the Commissioners, if that was an accurate  
25 representation of your prior testimony.

1 HEARING OFFICER KRAMER: Could you recharacterize  
2 it?

3 MR. RITCHIE: I believe Mr. Basofin asked did you  
4 consider at any time proposing a facility with a smaller  
5 generating capacity. And your response was, we did not, I  
6 mean it really was a negotiation with Edison, and that is  
7 what we submitted in the RFP process. And that's what we  
8 negotiated with them.

9 And then also asked if it was possible to change  
10 the cost parameters of that.

11 You responded, I think it would be very difficult  
12 to do so, renegotiating a PPA at a higher price is very  
13 difficult, and Edison would certainly have the right the  
14 come back and say no.

15 MS. BELLOWS: That still stands.

16 MR. RITCHIE: No further questions.

17 HEARING OFFICER KRAMER: Okay. Do any other  
18 parties have any questions? And it could be about her  
19 portion of the biology testimony or sort of the general  
20 lay of the land with regard to these two new footprints.

21 MS. MILES: This is Loulena Miles. And I do have  
22 a couple questions.

23 CROSS-EXAMINATION

24 MS. MILES: Regarding the detention basins  
25 removal, I just want to get clarified whether there are

1 any detention basins that will be included the proposed  
2 project, and I mean any internal or external sediment  
3 debris basins, anything like that.

4 MS. BELLOWS: There are some retention basins  
5 that are -- if you look at our testimony, our experts  
6 testified to the facts that there are some retention  
7 basins around the main services complex.

8 MS. MILES: And -- okay. So only around the main  
9 services complex.

10 MS. BELLOWS: That's correct.

11 MS. MILES: And did they -- did the testimony  
12 explain how big they will be, the actual size?

13 MS. BELLOWS: I believe they did. I'm not quite  
14 sure on that though.

15 MS. MILES: Okay. And also, have you -- do you  
16 know whether the Desert Tortoises have been checked  
17 recently to determine if they've gone into hibernation at  
18 the project site or in the project region. And I can hold  
19 that question off for your biologist if you don't have the  
20 answer.

21 MS. BELLOWS: We have not done that.

22 MS. MILES: Okay. And my last question is a  
23 multi-part question. It's regarding the plans that the  
24 applicant will need to prepare and present to the Energy  
25 Commission 30 days prior to any site mobilization,

1 construction, and translocation activities.

2           Where is the applicant at in preparing those  
3 plans?

4           MS. BELLOWS: We are working on a daily basis  
5 with the CEC's compliance officer. So we have a schedule  
6 and are working through all of that and submitting the  
7 various plans that we have to submit under the compliance  
8 conditions as they stand today.

9           MS. MILES: So you are actively -- you've  
10 submitted some of the plans at this point; is that  
11 correct?

12           MS. BELLOWS: Absolutely.

13           MS. MILES: So specifically, do you know if  
14 you've submitted the weed management plan?

15           MS. BELLOWS: Yes.

16           MS. MILES: And the draft special status plant  
17 mitigation plan?

18           MS. BELLOWS: I know I have read that. I would  
19 have to go back and see if we've submitted that formally  
20 or not, but I have definitely seen that draft.

21           MS. MILES: The burrowing owl monitoring and  
22 mitigation?

23           MS. BELLOWS: Yes.

24           MS. MILES: The final bighorn sheep mitigation  
25 plan?

1 MS. BELLOWS: I think so.

2 MS. MILES: And is it possible then that these  
3 plans could be docketed, because they are definitely  
4 relevant to the proceedings?

5 MR. OTAHAL: Just as a reviewing agency, no,  
6 because those all in draft, and there's various folks that  
7 are still commenting on that, so they are not releasable  
8 at this point.

9 MS. MILES: And have they been submitted to the  
10 Energy Commission, to the CPM?

11 MR. OTAHAL: Drafts have on those.

12 MS. MILES: I believe then that those would be  
13 releasable if they've been submitted to the Energy  
14 Commission.

15 Mr. Meyer?

16 PROJECT MANAGER MEYER: Sorry. I'm making sure I  
17 have the right staff available later.

18 Could you please repeat the question?

19 MS. MILES: Yes. I was wanting to get a copy or  
20 I'd like the plans that have been submitted to the CPM  
21 thus far to be docketed so that the parties can review  
22 them. Plans like the weed management plan and the  
23 botanical survey report.

24 PROJECT MANAGER MEYER: I will check with the  
25 compliance unit -- the compliance project manager to see

1 which plans have come in, because they've not come across  
2 my desk, so --

3 MS. MILES: Okay. I'm sorry to take up the time  
4 at the hearing on this, but these are very important to  
5 our review of biological resource impacts for this  
6 project. So thank you.

7 I have no further questions for Ms. Bellows.

8 HEARING OFFICER KRAMER: Okay. Any other  
9 intervenors, including those on the telephone?

10 MR. LAMB: Steve Lamb for BNSF. I have a couple  
11 questions in relation to some of the comments that she  
12 made about Soil and Water 8.

13 HEARING OFFICER KRAMER: Go ahead.

14 CROSS-EXAMINATION

15 MR. LAMB: You just testified that you agreed  
16 with staff's Soil and Water 8. Are you referring to the  
17 Soil and Water 8 that was submitted with the Supplemental  
18 Staff Assessment of last Friday?

19 MS. BELLOWS: That's correct.

20 MR. LAMB: Okay. Do you recall the August 25th  
21 hearing in this particular room where that was discussed,  
22 Soil and Water 8?

23 MS. BELLOWS: I do.

24 MR. LAMB: Do you recall your counsel stating for  
25 the record, on the transcript at page 317 lines 10 through

1 17, "Prior to installing any SunCatchers or construction  
2 of the detention basins, project owner shall pay for a  
3 hydrology study commissioned by BNSF which will determine  
4 the impact, if any, on the rail safety and BNSF operation  
5 of its planned placement of SunCatchers and detention  
6 basins and determined appropriate mitigation measures if  
7 necessary to be paid for by project owner"?

8 MS. BELLOWS: I do.

9 MR. LAMB: And did she make that statement with  
10 your authorization?

11 MS. BELLOWS: She did indeed.

12 MR. LAMB: And do you agree with that today?

13 MS. BELLOWS: I think that -- I think that the  
14 approach has changed a little bit in the sense that the  
15 detentions basins, we are suggesting that the detention  
16 basins are no longer on site. I think the notion,  
17 however, is that we have no problem whatsoever in  
18 performing a study to prove out the lack of need or  
19 lack -- the -- not needing them, detention basins, let's  
20 put it that way.

21 MR. LAMB: Okay. Well, you understand that  
22 Staff's Supplemental Assessment of Friday determined that  
23 there wasn't sufficient information provided by Dr. Chang  
24 to support the theory that detention basins weren't  
25 necessary, right?



1 MS. BELLOWS: Right. And that we would have to  
2 take another look. And I'm fine with that.

3 MR. LAMB: All right. And you understand that on  
4 the 25th, through your counsel, Calico Solar stipulated to  
5 pay for a hydrology study commissioned by BNSF, right?

6 MS. BELLOWS: And I have no problem paying for a  
7 study.

8 MR. LAMB: Okay. Commissioned by BNSF.

9 MS. BELLOWS: I have no problem with that.

10 MR. LAMB: And that whatever appropriate  
11 mitigation measures would be paid for by the project owner  
12 prior to implementation.

13 MS. BELLOWS: Understood.

14 MR. LAMB: Okay. Now, just so I understand this  
15 before Dr. Chang testifies, I want to get --

16 DR. CHANG: Yeah. I'm on the line already. Can  
17 you hear me?

18 MS. BELLOWS: We can, Dr. Chang.

19 DR. CHANG: Yes. Can you hear me on the phone?

20 MS. FOLEY GANNON: Dr. Chang, we can hear you.  
21 We will be taking your testimony in a few moments.

22 DR. CHANG: Okay. I'll just hold on.

23 MS. FOLEY GANNON: Thank you.

24 MR. LAMB: Okay. I just -- did you get a chance  
25 to review the testimony of any of the people that we put

1 into evidence?

2 MS. BELLOWS: I did.

3 MR. LAMB: Okay. And did you review the  
4 historical reference that was done?

5 MS. BELLOWS: Specifically to?

6 MR. LAMB: Well, we had a number of people that  
7 testified. We had David Miller, we had Steve Metro, and  
8 we had Douglas Hamilton. And in Steve Metro's prepared  
9 direct testimony, he recounted the history of the  
10 detention basins at least in this matter. Did you look at  
11 that?

12 MS. BELLOWS: I did.

13 MR. LAMB: And Did you find that it was accurate?

14 MS. BELLOWS: I didn't look at it in the sense of  
15 going back and document whether it followed exactly.

16 MR. LAMB: Okay.

17 MS. BELLOWS: In general, I would say that it was  
18 fine.

19 MR. LAMB: So would you agree that just generally  
20 as February of 2010 that the plan was to have debris  
21 basins in the northern portion?

22 MS. BELLOWS: Detention, slash, debris basins,  
23 yes.

24 MR. LAMB: And you understand there's a  
25 difference between debris basins and detention basins,

1 correct, ma'am?

2 MS. BELLOWS: Yes. My engineers have corrected  
3 me number of times so far.

4 MR. LAMB: And you understand that the plan at  
5 that time called for detention basins scattered throughout  
6 the site --

7 MS. BELLOWS: I do.

8 MR. LAMB: -- that sediment and water from the  
9 debris basins would be directed to the detention basins,  
10 right?

11 MS. BELLOWS: I do.

12 MR. LAMB: And now there are no debris basins and  
13 no detection basins?

14 MS. BELLOWS: Correct, there are only retention  
15 basins.

16 MR. LAMB: Okay. If I understand correctly what  
17 happened, there was a report that was done in July that  
18 came up with a determination that there shouldn't be  
19 detention basins according to Dr. Chang, right?

20 MS. BELLOWS: What I believe he's referring to,  
21 his own report, there was also --

22 MR. LAMB: Yes.

23 MS. BELLOWS: -- a quite -- you know, we're  
24 moving forward on the engineering of the site. And  
25 Mortenson Construction, our contractor, came up with a

1 determination that -- for the first time to us, that, hey,  
2 you know, you really don't need these, why are you putting  
3 them in?

4           And we insisted on putting them in for  
5 maintenance perspective, but they continued to insist that  
6 we remove them.

7           So we asked Dr. Chang to look at, because  
8 Dr. Chang was working for us on IVS, and Dr. Chang looked  
9 at it and I also came to the conclusion that we didn't  
10 need detentions basins.

11           We then looked at it, we said, okay, that's fine.  
12 Even in a workshop we attempted to take those out. There  
13 was -- turned out to be more problematic removing them  
14 than leaving them in from the perspective of change at  
15 that late a date, so we left them in with the notion that  
16 maybe we would go back revisit it later. So we left them  
17 in.

18           MR. LAMB: Okay. So let me get this straight.  
19 In July of this year, you received a report from one of  
20 your experts that detection basins aren't necessary.

21           MS. BELLOWS: From our contractor, who will be  
22 actually constructing our balance of -- plant contractor,  
23 who will be constructing the balance of plant on the  
24 facility.

25           MR. LAMB: Okay. But Mr. Bile and Mr. Moore

1 testified on your behalf in early August saying that you  
2 were promoting detention basins at that time.

3 MS. BELLOWS: That's true. Again, we were  
4 looking at it -- from that perspective, this was the  
5 contractor coming to us with their own internal  
6 conclusion, and we needed to run it down ourselves.

7 MR. LAMB: Okay. All right. Did you ever advise  
8 BNSF that that was going on?

9 MS. BELLOWS: From the detention basin  
10 perspective, no, we did not.

11 MR. LAMB: Did you ever advise the CEC?

12 MS. BELLOWS: Actually, we did have -- at the  
13 workshop, at one of the workshops we discussed whether we  
14 should remove the detention basins or not.

15 MR. LAMB: At the last workshop.

16 MS. BELLOWS: No. Actually, this was in -- I  
17 want the say in August.

18 MR. LAMB: The July report that you received,  
19 that was from your contractor?

20 MS. BELLOWS: Correct.

21 MR. LAMB: Okay. They went on site and did that  
22 work?

23 MS. BELLOWS: I believe so. I know Mortenson has  
24 been our on site. I can't really speak to whether the --  
25 their hydrologist has been on site for that or not.

1 Dr. Chang certainly was, but I can't speak to that right  
2 now.

3 MR. LAMB: Have you looked at that report?

4 MS. BELLOWS: The Mortenson report.

5 MR. LAMB: Well, whatever the July report is.

6 MS. BELLOWS: Yes, I've looked at it.

7 MR. LAMB: You view that as the Mortenson report?

8 MS. BELLOWS: Well, again, let's differentiate  
9 between the Chang report and the Mortenson report. What's  
10 been -- so the Mortenson was just a rough, general report  
11 saying, in our view, it would be more economically  
12 efficient for you not to build the detention basins.

13 MR. LAMB: Then the Chang report was in July,  
14 right?

15 MS. BELLOWS: Correct, later.

16 MR. LAMB: Okay. When in July?

17 MS. BELLOWS: I don't recall off the top of my  
18 head.

19 MR. LAMB: You recall that in the Chang report of  
20 July of this year there area a number of photographs where  
21 people are standing under railroad trestles?

22 MS. BELLOWS: Standing near them, that's correct.

23 MR. LAMB: Standing near them, right?

24 MS. BELLOWS: Right.

25 MR. LAMB: And you understand that BNSF only

1 granted access for survey to the BNSF right of way after  
2 August 2nd, right?

3 MS. BELLOWS: Quite honestly, I'm not aware of  
4 that, but that's fine. I accept that.

5 MR. LAMB: Well, can you explain to us then what  
6 people were doing on our right of way prior to a grant of  
7 access?

8 MS. BELLOWS: My understanding is that Irene had  
9 a discussion with the name -- what is his name? Greg? I  
10 forget his name. I'll go look it up. And inform him that  
11 we would be out on the site that day.

12 MR. LAMB: I don't have any further general  
13 questions.

14 Well, they're not wearing any safety gear or  
15 anything. You're aware of that?

16 MS. BELLOWS: I am.

17 MR. LAMB: And you know BNSF never lets anybody  
18 go on the right of way without that, right?

19 MS. BELLOWS: I am. And she's passed safety  
20 training as well.

21 MR. LAMB: But she's not wearing any at the time.

22 MS. BELLOWS: No, I understand.

23 MR. LAMB: Okay.

24 HEARING OFFICER KRAMER: Okay. Ms. Gannon, did  
25 you want to take Dr. Chang through his summary of his

1 testimony, and then -- Mr. Meyer?

2 PROJECT MANAGER MEYER: Sorry to interrupt. Just  
3 a very quick housekeeping on our end for staff  
4 availability.

5 On cultural resource, does anyone anticipate -- I  
6 know we talked about that later, I'm not -- I'm trying to  
7 figure out if it's our prehistoric or any of the cultural  
8 resource in our supplemental addendum, if we're going to  
9 cover that and about when so can I deal with staff  
10 availability this afternoon. Because I have cultural  
11 staff available to about 5:00 unless I get them to make  
12 another arrangements

13 MS. FOLEY GANNON: The applicant doesn't  
14 anticipate any questions for your cultural staff.

15 MS. MILES: CURE does have questions for staff on  
16 cultural resources.

17 HEARING OFFICER KRAMER: Okay. Well, I guess we  
18 could -- if necessary, we could reorder them, try to get  
19 them out by 5:00 after -- I mean, now that we've gotten  
20 into Soil and Water, we barely got into biology. Biology  
21 will slip now, perhaps, to after cultural unless that  
22 causes some other concern.

23 PROJECT MANAGER MEYER: Thank you very much.

24 HEARING OFFICER KRAMER: Would that -- I'm not  
25 hearing any concern. Okay.



1 All right. So Ms. Gannon --

2 STAFF COUNSEL ADAMS: Hearing Officer Kramer,  
3 staff has a question for Ms. Bellows. Do you want us to  
4 take care of that now?

5 HEARING OFFICER KRAMER: No. I think since  
6 Dr. Chang is on what's probably a relatively expensive and  
7 perhaps even tenuous, and he may have people lining up,  
8 staring at him politely at the moment, but not so in a few  
9 minutes, perhaps we should get to him.

10 STAFF COUNSEL ADAMS: Okay.

11 MS. FOLEY GANNON: Thank you.

12 Dr. Chang, are you there?

13 DR. CHANG: Yes, I'm here.

14 MS. FOLEY GANNON: Dr. Chang has submitted  
15 testimony previously in these proceedings.

16 HEARING OFFICER KRAMER: And was --

17 MS. FOLEY GANNON: And he has not -- I'm sorry.  
18 He gave testimony in another proceeding.

19 HEARING OFFICER KRAMER: Okay. So, Dr. Chang, if  
20 you could raise your right hand.

21 DR. CHANG: Yes, sir.

22 Whereupon,

23 HOWARD H. CHANG

24 having been duly sworn, testified as follows:

25 HEARING OFFICER KRAMER: Okay. If you could

1 spell your first and last name for our court reporter.

2 DR. CHANG: Yes, sir. Howard H. Chang. Chang is  
3 spelled C-h-a-n-g.

4 HEARING OFFICER KRAMER: Okay. Ms. Gannon, go  
5 ahead.

6 DIRECT EXAMINATION

7 MS. FOLEY GANNON: Dr. Chang, I believe the  
8 parties are familiar with the written testimony that you  
9 provided. If you could just provide us a brief summary of  
10 the analysis that you completed on the site in determining  
11 whether you believe the detection basins were unnecessary  
12 to support the project.

13 DR. CHANG: Okay. I can testify very briefly, as  
14 you said. You know, I saw the site extensively. I looked  
15 at the alluvial fans, I looked at the washes on both sides  
16 of the railroad.

17 You know, that site, we have alluvial fans with  
18 washes. They were established over a very long time,  
19 geological time, to reach an approximate equilibrium. We  
20 do have a state of equilibrium right now. That is, the  
21 alluvial fan has been formed under the inflow of water and  
22 the sediment. They also apply from the drainage basin of  
23 the alluvial fan.

24 You can see that alluvial fan has been undergoing  
25 some degree of aggregation; that is, the topography has

1 been building up very slowly because there's the sediment  
2 coming in that settles on alluvial fan to build up  
3 alluvial fan very, very slowly. It reaches the state of  
4 equilibrium.

5           Now, if we put in the basin detention, detention  
6 basins will definitely cut off the sediment supply to the  
7 alluvial fan and to the washes. That is going to upset  
8 existing equilibrium. Now, the washes will respond to a  
9 deficit of sediment supply by reversing its train of  
10 aggregation or deposition into erosion and a degradation.

11           The washes will become deeper in the process and  
12 the erosion development. That is going to capture more  
13 flow. Now, when the flow increases, when the water depth  
14 increases, that increases sediment transport. Sediment  
15 transport is a very sensitive to the velocity and also to  
16 the water depth. When that happens, we're going to see  
17 continued degradation and formation of gullies on alluvial  
18 fan.

19           Well, basically existing equilibrium will be  
20 upset. That gully would actually capture flow from the  
21 surrounding area to existing sheet flow will become much  
22 more concentrated in a few small gullies. The gullies, of  
23 course, will grow in time. Because if we build the  
24 detention basins, the detention basins would have to be  
25 maintained, which means sediments settled in the detention

1 basins would have to be removed from time to time.

2           Now, if you look at existing conditions right  
3 now, the washes, very shallow flow depth. Because if the  
4 discharge increases, the water will simply spread out to  
5 very large adjacent areas intending a shallow depth. When  
6 the depth is shallow, the velocity is also slow. Sediment  
7 transport is also slow.

8           Now, this kind a slow condition is more stable,  
9 this kind a flow condition is better for the stability of  
10 SunCatchers. If we -- on the other hand, we have gradual  
11 development of the incision and development of the gully,  
12 now that high-flow velocity higher depth would actually  
13 cause some kind of hazard for the SunCatchers. Well,  
14 basically, we are going to upset the mother -- mother  
15 nature. We're going to upset natural equilibrium which  
16 has been established over very long term, geological time,  
17 which could be measured in millions of years.

18           As I walk aside, go to the side, I came to the  
19 conclusion, right now we have sheet flow. If the  
20 discharge really increase, water would simply spread out,  
21 very large area, okay? That means very shallow depth.  
22 That means there is very slow velocity. So long as the  
23 existing state intend, we would always have that kind of  
24 situation.

25           Now, if we put the detention basin, sediment

1 would be trapped in a detention basin, okay, and sediment,  
2 of course, we have to maintain the detention basins, which  
3 means the detention basins would have to be -- the  
4 sediment has to be removed. It's going to create a hungry  
5 water scenario on the alluvial fan and the incision and  
6 formation of gullies alluvial fan.

7 Now, that's my brief statement.

8 MS. FOLEY GANNON: Thank you, Dr. Chang.

9 Dr. Chang is available for cross-examination.

10 DR. CHANG: Sure.

11 HEARING OFFICER KRAMER: Mr. Lamb?

12 MR. LAMB: Normally we'd start with staff. Are  
13 we not going to start with staff?

14 HEARING OFFICER KRAMER: We can if you'd like to  
15 wait.

16 Staff, did you have some questions?

17 STAFF COUNSEL ADAMS: Staff does not have  
18 questions.

19 CROSS-EXAMINATION

20 MR. LAMB: Steve Lamb for BNSF.

21 Dr. Chang --

22 DR. CHANG: Yes.

23 MR. LAMB: -- would you agree with the  
24 proposition that the project itself will have an impact  
25 and increase the rate of flow over the portion that the

1 SunCatchers are emplaced?

2 DR. CHANG: Well, that's a very good question.

3 You know, there different reasons for increasing  
4 the flow. That is, if we change hydrology --

5 MR. LAMB: Dr. Chang, I appreciate the reasons.  
6 I just want to know an answer to my question.

7 Would you agree with that, yes or no?

8 DR. CHANG: The answer is no. The answer is no.

9 MR. LAMB: No, it does not increase the rate of  
10 flow at all.

11 DR. CHANG: I beg your pardon.

12 MR. LAMB: It does not increase the rate of flow  
13 at all.

14 DR. CHANG: No. No.

15 MR. LAMB: Okay. So I just want to be clear that  
16 your testimony is that in placing 24,000 SunCatchers, a  
17 main services complex of several acres, a substation of  
18 several acres, and hundreds of miles of roadways will not  
19 increases the rate of flow.

20 DR. CHANG: They should have insignificant  
21 effects on the surface flow of hydrology of the site.

22 MR. LAMB: Well, I'm not asking that question,  
23 sir.

24 I want to know if it will increase the rate of  
25 flow. Yes or no?

1 DR. CHANG: The answer the no.

2 MR. LAMB: Not at all.

3 DR. CHANG: Not at all.

4 MR. LAMB: Okay. Thank you.

5 Now, sir, would you agree that the applicant  
6 intends to emplace a series of hundreds of miles of  
7 roadways within the project?

8 DR. CHANG: Yes. I understand that they are on  
9 site, they are at-grade dirt roads.

10 MR. LAMB: Okay.

11 DR. CHANG: I understand that.

12 MR. LAMB: Sir, around the --

13 DR. CHANG: Those will be -- yes.

14 MR. LAMB: -- around the site, around the  
15 perimeter of the site, that roadway, will that be paved?

16 DR. CHANG: Well, you mean along the side on the  
17 edges of the project site?

18 MR. LAMB: Yes, sir.

19 DR. CHANG: It will be paved, you're telling me  
20 they will be paved.

21 MR. LAMB: Okay. And that would then impact.

22 DR. CHANG: That would impact adjacent area.

23 MR. LAMB: No, I'm asking you if they will be or  
24 not. Do you know?

25 DR. CHANG: Yes. Well, now you -- they are

1 paved. They would have very small effect.

2 MR. LAMB: Sir, I'm not asking if they will be  
3 paved, I want to know if you know whether they will or  
4 will not be paved.

5 DR. CHANG: Well, my understanding is they will  
6 not be paved.

7 MR. LAMB: Okay. They will not be paved.

8 DR. CHANG: That's how I understand it.

9 MR. LAMB: Okay. Will they be graded?

10 DR. CHANG: They will be at grade; my  
11 understanding is all the roads will be at grade.

12 MR. LAMB: Okay. So they won't be graded.

13 DR. CHANG: Correct.

14 MR. LAMB: All right

15 DR. CHANG: That's my understanding.

16 MR. LAMB: Okay. Will they be treated in any way  
17 with Soil Tech or any other material that will keep the  
18 dust down?

19 DR. CHANG: I don't know about that. I have no  
20 information on that.

21 MR. LAMB: Okay. If they were treated with Soil  
22 Tech or a dust retardant, would you agree that that will  
23 impact whether or not water can be absorbed on that  
24 roadway?

25 DR. CHANG: Well, that would have some very small



1 effect.

2 MR. LAMB: Okay. So your view is that the  
3 roadways around the project will be at the natural grade  
4 and won't impact at all the rate or direction of flow.

5 DR. CHANG: If they're not paved. If they are  
6 not treated, I say, yes, they will not impact.

7 MR. LAMB: No, I want to know what you think is  
8 going to happen, sir.

9 DR. CHANG: I don't know what plan they have.

10 MR. LAMB: You don't know

11 DR. CHANG: No, that's correct, I don't know.

12 MR. LAMB: Okay. All right. The roadways within  
13 the project, will they be graded?

14 DR. CHANG: My understanding is they will be at  
15 grade, which means they will not be graded, they will not  
16 paved.

17 MR. LAMB: Will not be graded.

18 DR. CHANG: That's correct

19 MR. LAMB: And you understand that SunCatchers  
20 are going to be emplaced on the north-south grid, right?

21 DR. CHANG: That's correct.

22 MR. LAMB: Okay. And on a north-south grid, when  
23 the water falls on those SunCatchers and hits the poles  
24 which are approximately two feet in diameter, won't it  
25 canalize and go the direction of the grid?

1 DR. CHANG: Well, you see we have existing  
2 vegetation scattered at the site. So SunCatchers does not  
3 really change the surface of the existing condition.

4 MR. LAMB: Well, the bush would change that, and  
5 a SunCatcher would change that, right?

6 DR. CHANG: Well, if they place the SunCatcher at  
7 a certain spot, then the vegetation has to be removed. So  
8 the net effect is not there.

9 MR. LAMB: What about --

10 DR. CHANG: In other words --

11 MR. LAMB: What about SunCatchers that are  
12 emplaced where plans don't exist?

13 DR. CHANG: That would have some effect, but  
14 we're talking about very low density. The surface rock  
15 basically would not be changed by the placement of  
16 SunCatchers, because they are scattered at very low  
17 density.

18 MR. LAMB: Well, sir, you're very familiar, I'm  
19 sure, on certain riverbed studies where if you emplace a  
20 line of trees in a line, the water flow will follow the  
21 line of trees, right?

22 DR. CHANG: That is true.

23 MR. LAMB: And we could expect the same with the  
24 SunCatchers, right, sir?

25 DR. CHANG: Well, you know, there are certain

1 restrictions, quite a few restrictions for the placement  
2 of SunCatchers. Wherever they place SunCatchers, the  
3 effect have already been taken care of because of those  
4 restrictions.

5 MR. LAMB: What restrictions are you referring  
6 to, sir?

7 DR. CHANG: Well, for example, we have decided  
8 that the water depth at a particular spot cannot exceed  
9 1.5 feet. Now, such area, we cannot use for SunCatcher  
10 placement. We have determined if the sediment deposition  
11 exceeds 6 inches, such area will not be -- SunCatchers  
12 will not installed in such areas.

13 MR. LAMB: Well, what --

14 DR. CHANG: We have also --

15 MR. LAMB: What areas are those specifically?  
16 Are you aware of any map or diagram that identifies for us  
17 what areas those are?

18 DR. CHANG: Well, such areas will be determined  
19 in field survey. I have made a specific recommendation  
20 for area where SunCatchers would not be placed.

21 MR. LAMB: So that --

22 DR. CHANG: So they've not made a map yet.

23 MR. LAMB: Is survey hasn't been done, right?

24 DR. CHANG: Correct.

25 MR. LAMB: Okay. And that survey needs to be

1 done, right?

2 DR. CHANG: That's correct.

3 MR. LAMB: And, in fact, the topographic  
4 information that you're operating under is from the  
5 1992-1993 time period, right?

6 DR. CHANG: That's correct. It doesn't have the  
7 details. That's why field survey is necessary.

8 MR. LAMB: Well, and you would agree that to do a  
9 proper field survey, to do a drainage study, you would  
10 need to get an accurate, current, timely realtime  
11 assessment of the topography of the site, right?

12 DR. CHANG: That's correct.

13 MR. LAMB: And there are number of ways that you  
14 could do that, right?

15 DR. CHANG: That's correct.

16 MR. LAMB: And there are mechanisms to do that by  
17 flying over the site with aircraft, right?

18 DR. CHANG: That's correct.

19 MR. LAMB: And that hasn't been done, right?

20 DR. CHANG: Well, I don't know.

21 MR. LAMB: You haven't seen any, right, sir?

22 DR. CHANG: I've not seen one. I've seen -- go  
23 ahead.

24 MR. LAMB: And that can be done for few thousand  
25 dollars, right?

1 DR. CHANG: Well, I cannot tell you the cost.

2 MR. LAMB: You have no idea what the cost is?

3 DR. CHANG: Well, no, I don't.

4 MR. LAMB: Okay. But you haven't seen any,  
5 right?

6 DR. CHANG: Well, I've seen a topography of the  
7 area, but I don't how they will attend it.

8 MR. LAMB: You haven't seen a current realtime  
9 topography, right?

10 DR. CHANG: Correct.

11 MR. LAMB: And you would need that to do the  
12 study that you're referring to, right?

13 DR. CHANG: Correct.

14 MR. LAMB: Okay. Thank you. Now, you said that  
15 the alluvial fans here had attained equilibrium, right,  
16 sir?

17 DR. CHANG: Right now you see approximate state  
18 of equilibrium.

19 MR. LAMB: Right. And isn't the definition of an  
20 alluvial fan by necessity one that has not attained  
21 equilibrium?

22 DR. CHANG: Well, the changes are so slow, I use  
23 the word approximate equilibrium, the sediment inflow from  
24 the watershed.

25 MR. LAMB: Sir, can you answer my question?

1           Isn't one of the seminal definitions of an  
2 alluvial fan an entity that has not attained equilibrium  
3 because it is, in fact, shifting from time to time?

4           DR. CHANG: We have basic equilibrium right now.  
5 Yes, we do.

6           MR. LAMB: Okay. Isn't the definition of an  
7 alluvial fan an entity that has not attained equilibrium?

8           DR. CHANG: I wouldn't say that.

9           MR. LAMB: You wouldn't say that. Okay.

10          DR. CHANG: No

11          MR. LAMB: All right. Now, you referred to sheet  
12 flow, right?

13          DR. CHANG: Right.

14          MR. LAMB: Okay. And you're aware that there's  
15 another way that could be viewed as in terms of hydraulic  
16 flow, right?

17          DR. CHANG: Right.

18          MR. LAMB: Okay. And what basis do you have that  
19 it would be sheet flow and not hydraulic flow?

20          DR. CHANG: Well, sheet flow has very shallow  
21 depth and very large width. It spreads out over a large  
22 area. That's why we call it sheet flow.

23          MR. LAMB: I'm trying to find out what your basis  
24 is to determine that when the rain falls on this project  
25 site it's going to be sheet flow and not hydraulic flow,

1 sir.

2 DR. CHANG: Well, you see, I look at those  
3 washes. Washes has a very small bank height. They  
4 contend very limited discharge. Discharge exceeds the  
5 bank flow discharge of the washes, water would simply  
6 spread out, it would simply overtop the banks to spread  
7 out over very large area. That's what they call it sheet  
8 flow.

9 MR. LAMB: Okay. Any other basis?

10 DR. CHANG: Well, because the flow does not occur  
11 in confined channel, I call that sheet flow.

12 MR. LAMB: Okay. Would you disagree with someone  
13 who assessed the site and assessed it based on hydraulic  
14 flow?

15 DR. CHANG: Well, hydraulic flow is very general  
16 term. Any flow is a hydraulic flow.

17 MR. LAMB: Okay. All right. Now, if you'll look  
18 at your report, you probably don't have it you're on ship,  
19 it's been marked as Exhibit 117 in this particular  
20 proceeding, and on Page 11 you say, "In relation to the  
21 alluvial fans north of the railroad, the SunCatchers will  
22 avoid washes on the alluvial fan at the height for both  
23 banks if such a wash exceeds one foot."

24 DR. CHANG: That's correct. I remember that.

25 MR. LAMB: Okay. And that's a true statement,

1 right?

2 DR. CHANG: Yes.

3 MR. LAMB: But in the Conditions of  
4 Certification, the modification of Soil and Water 8, the  
5 recommendation the 1.5 feet.

6 DR. CHANG: That applies to washes to south of  
7 the railroad.

8 MR. LAMB: Well, right now Soil and Water 8 just  
9 applies to all washes north or south. Would agree then,  
10 sir --

11 DR. CHANG: Oh, yes, yes, yes, I agree.

12 MR. LAMB: So that's a mistake. North of the  
13 railroad, they should be one foot.

14 DR. CHANG: Well, what I said is north of the  
15 railroad you don't see washes with a water depth exceeding  
16 1.5 feet, exceeding 1 foot. They are very shallow flow.

17 MR. LAMB: Okay.

18 DR. CHANG: I could not find any washes with a  
19 bank height exceeding one foot.

20 MR. LAMB: North of the railroad?

21 DR. CHANG: That's correct. They are pictured in  
22 the report showing certain cubical washes north of the  
23 railroad.

24 MR. LAMB: Okay. All right. How do you measure  
25 the depth of the washes, sir?



1 DR. CHANG: Well, you can tell from the pictures.  
2 If the water depth exceeds one foot, it would simply  
3 spread out.

4 MR. LAMB: No, sir, how do you measure them? Did  
5 you just look at them and decide they were less than a  
6 foot?

7 DR. CHANG: It was by observation.

8 MR. LAMB: So you didn't actually measure them.

9 DR. CHANG: That's correct.

10 MR. LAMB: Would you agree that putting a  
11 SunCatcher in a wash irrespective of the depth of the wash  
12 would increase the rate of flow in the wash?

13 DR. CHANG: It would -- you use the word increase  
14 the flow rate.

15 MR. LAMB: That's what I used, sir. Those are  
16 the terminology you used.

17 DR. CHANG: Well, I would say "change" is  
18 probably a better description, because, you know, when you  
19 put a SunCatcher pedestal in a wash, if anything, that can  
20 slow down the flow. That would decrease the discharge  
21 instead of increasing the discharge.

22 MR. LAMB: Okay. Sir, on a rainfall that goes  
23 into the wash, that's a depression from the remainder of  
24 the area, right, sir?

25 DR. CHANG: Right.

1 MR. LAMB: Okay. And if you pepper that wash  
2 with SunCatchers pedestals that are two feet in diameter,  
3 that is going to decrease the amount within the wash that  
4 can absorb water, right?

5 DR. CHANG: That is true.

6 MR. LAMB: And by consequence, the water's going  
7 to rise, right?

8 DR. CHANG: Water's going to rise and it's going  
9 to overflow to adjacent area.

10 MR. LAMB: And it's going to run faster.

11 DR. CHANG: Well, it could even run slower  
12 because that's flow resistant, pedestal is a flow  
13 resistant.

14 MR. LAMB: Okay. And if it -- well, it's going  
15 the change it, right?

16 DR. CHANG: It can make small change, yes.

17 MR. LAMB: Okay. And that's going to affect the  
18 rate of flow, right?

19 DR. CHANG: Correct.

20 MR. LAMB: And it's going to affect  
21 sedimentation, right?

22 DR. CHANG: A little bit, yes.

23 MR. LAMB: Now, did you rely on the Huitt-Zollars  
24 report for hydrographs?

25 DR. CHANG: I did use the hydrograph, I did look

1 at them, yes.

2 MR. LAMB: And they were reliable, right?

3 DR. CHANG: Many places I did not use them. I  
4 should not be speak for them, but wherever used, I checked  
5 on their study.

6 MR. LAMB: Did you develop your own hydrographs?

7 DR. CHANG: No.

8 MR. LAMB: The answer is no?

9 DR. CHANG: Correct.

10 MR. LAMB: Okay. So if you didn't develop your  
11 own hydrographs and you didn't use the Huitt-Zollars  
12 report for hydrographs, what did you use?

13 DR. CHANG: I use the bank full flow for many  
14 washes, so that's the maximum discharge a wash can carry,  
15 is the bank full discharge, because any water over the  
16 bank full depth, would be overflowing into adjacent area.

17 MR. LAMB: Did you say "bank flow discharge"?

18 DR. CHANG: Bank full, b-a-n-k f-u-l-l, bank full  
19 discharge. That is when the water is flowing to the top  
20 of the bank, that's the maximum discharge a wash can  
21 carry.

22 MR. LAMB: Did you measure that?

23 DR. CHANG: Oh, that's very easy, because the  
24 computer can determine the bank full discharge for me.  
25 The computer --

1 MR. LAMB: Wait a minute. Sir, sir, if you  
2 haven't measured the wash and you don't know what the  
3 depth of the wash is --

4 DR. CHANG: Well, I used the worst-case scenario  
5 of a one foot in height to determine the maximum discharge  
6 a wash can carry.

7 MR. LAMB: Okay. But you didn't measure them.

8 DR. CHANG: That's correct.

9 MR. LAMB: Okay. Did you think that there was  
10 anything wrong with the hydrographs in the Huitt-Zollars  
11 report?

12 DR. CHANG: I cannot tell you that, don't know.

13 MR. LAMB: Okay. Can you give us, just so we're  
14 on a common footing, what your definition of a debris  
15 basin is, sir?

16 DR. CHANG: Would you please repeat your question  
17 again?

18 MR. LAMB: Can you give us what your definition  
19 of a debris basin is?

20 DR. CHANG: Debris basin is a basin that is  
21 designed to capture or to trap the debris supplied from  
22 the watershed.

23 MR. LAMB: Okay. And you understand that  
24 originally this site was designed or it was planned to  
25 have debris basins along the northern portion of the site?

1 DR. CHANG: I notice that. I read about that.

2 MR. LAMB: Right. Okay. Well --

3 DR. CHANG: I'm the one who recommends the  
4 deletion of the detention basins.

5 MR. LAMB: Well, you want the deletion of debris  
6 basins too, right?

7 DR. CHANG: Right.

8 MR. LAMB: The debris basins were on the north,  
9 then you understand the detention basins were scattered  
10 throughout the site, right?

11 DR. CHANG: Yes.

12 MR. LAMB: Okay. And the original plan called  
13 for the debris basins to channelize the water in a  
14 controlled flow and at a controlled rate to the detention  
15 basins within the site, right?

16 DR. CHANG: That's correct.

17 MR. LAMB: Okay. Can you give us your definition  
18 of what a detention basin is, sir?

19 DR. CHANG: Well, detention basin, the primary  
20 purpose of detention basin is to detain water that would  
21 actually reduce the discharge to release towards  
22 downstream.

23 MR. LAMB: Okay. In your --

24 DR. CHANG: That's the primary --

25 MR. LAMB: I'm sorry, go ahead.

1 DR. CHANG: I'm sorry, I better let you go ahead.

2 MR. LAMB: No, I apologize, I interrupted you.  
3 You go ahead and complete your thought. I apologize, sir.

4 DR. CHANG: Well, a detention basin also captures  
5 sediment.

6 MR. LAMB: Okay. All right. Were you finished?

7 DR. CHANG: Yes, sir.

8 MR. LAMB: Okay. And you recommend the deletion  
9 of both debris basins and detention basins, right?

10 DR. CHANG: That's correct. That's correct.  
11 Delete both of them.

12 MR. LAMB: Okay. Sir, can you tell us what your  
13 definition of a retention basin is?

14 DR. CHANG: A retention basin -- a retention  
15 basin could be something that they capture all the flow,  
16 but I don't know. I don't know. I have seen retention  
17 basin used in different ways.

18 MR. LAMB: Okay. And do you believe that there  
19 should be retention basins on the site?

20 DR. CHANG: I would not recommend the use of  
21 retention basins at all.

22 MR. LAMB: Anywhere?

23 DR. CHANG: Anywhere.

24 MR. LAMB: Are you aware that the applicant has  
25 planned a retention basin adjacent to the main services

1 complex?

2 DR. CHANG: I was not aware of that.

3 MR. LAMB: Okay. And according to your  
4 testimony, the emplacement of that retention basin  
5 consistent with your report would alter what you believe  
6 to be mother nature, right?

7 DR. CHANG: Yes, that would also upset mother  
8 nature, that's correct.

9 MR. LAMB: Okay. Now, do you have an  
10 understanding or a definition for term "collection  
11 channel"?

12 DR. CHANG: I think I know what that means.

13 MR. LAMB: Can you give us your definition, sir?

14 DR. CHANG: Well, that's a channel to capture the  
15 flow.

16 MR. LAMB: And do you believe that that should be  
17 used in this site?

18 DR. CHANG: I don't think so. I don't think  
19 collection channel should be used at all.

20 MR. LAMB: Okay. How about a collection berm?

21 DR. CHANG: Well, collection berm, well, I think  
22 we should do the minimum change to the project site.  
23 That's my belief

24 MR. LAMB: Can you tell us what your definition  
25 of a "collection berm" is, sir?

1 DR. CHANG: You mean a berm?

2 MR. LAMB: A collection berm.

3 Is that a term you're familiar with? Collection  
4 berm.

5 DR. CHANG: Oh, yes, yes. A berm is a -- is  
6 earth, usually it's made of earth. It's the purpose of  
7 directing the flow or regulating the flow or controlling  
8 the flow direction, called a retention berm.

9 MR. LAMB: Okay.

10 DR. CHANG: Like a very small dike.

11 MR. LAMB: Okay. How about a collection guide  
12 bank? Do you have understanding of what that is?

13 DR. CHANG: That's -- a guide bank is a  
14 structure, a berm is an earthen structure.

15 MR. LAMB: Okay. Should either of those be  
16 utilized on this site?

17 DR. CHANG: I would say no.

18 MR. LAMB: But you would agree, would you not,  
19 sir, that the proper hydrologic study and drainage study  
20 has not been conducted for this site, right?

21 DR. CHANG: Well, I really cannot tell you how  
22 much Huitt-Zollars has done. I cannot speak to that  
23 issue.

24 MR. LAMB: Well, you haven't done a proper  
25 drainage study, have you?



1 DR. CHANG: No, that's correct. I did sediment  
2 study.

3 MR. LAMB: Right. And in order to determine what  
4 structures if any would need to be emplaced to route or  
5 deter or collect or deal with stormwater, you would first  
6 have to do a proper drainage study, right?

7 DR. CHANG: I think something like that would be  
8 desirable, yes.

9 MR. LAMB: Well, in your professional opinion, it  
10 would be better, right, sir?

11 DR. CHANG: Yes. Yes.

12 MR. LAMB: And would you agree that if that study  
13 called for detention basins, that you would then defer to  
14 that and say detention basins may be appropriate?

15 DR. CHANG: No, I would still say it's  
16 inappropriate

17 MR. LAMB: Okay. You can tell that just by  
18 walking around and looking at the property?

19 DR. CHANG: Yes.

20 MR. LAMB: Okay. All right. What volume of  
21 water would impact the northern boundary of the project  
22 from the alluvial fan's emanating from the Cady Mountains?

23 DR. CHANG: I've not done such a calculation.

24 MR. LAMB: You have not. Okay.

25 DR. CHANG: No.

1 MR. LAMB: And, in fact, your calculations seem  
2 to focus on the five-year flood, five-year storm, right?

3 DR. CHANG: Right.

4 MR. LAMB: Okay. You understand that the prior  
5 calculations and the prior assessment was done for a  
6 100-year storm, right?

7 DR. CHANG: Right.

8 MR. LAMB: And you understand that the  
9 San Bernardino regulations require that analysis, right?

10 DR. CHANG: Right.

11 MR. LAMB: But you have not done that, correct?

12 DR. CHANG: Correct.

13 MR. LAMB: Okay. Now, the three sediment  
14 transportation calculations done in July 2010 that you  
15 did, what volume of sediment did you determine is most  
16 representative?

17 DR. CHANG: You mean the volume of sediment?

18 MR. LAMB: Yes, sir.

19 DR. CHANG: Yeah, I did calculation, yes.

20 MR. LAMB: Do you know what volume of sediment  
21 you determined to be most representative?

22 DR. CHANG: Well, that's already in the computer  
23 output. That should also be reported in the report.

24 MR. LAMB: Okay. So you just can't do that on  
25 board the ship. I appreciate that.

1           You don't have a recollection of that.

2           DR. CHANG: Not -- no, sir

3           MR. LAMB: Okay. Can you tell us what size basin  
4 it would take to contain the sediment at the north end of  
5 the project?

6           DR. CHANG: I cannot tell you.

7           MR. LAMB: Okay. Did you revise the watershed  
8 map in the Huitt-Zollars report?

9           DR. CHANG: Yes, I have the map.

10          MR. LAMB: In what way did you revise it?

11          DR. CHANG: Oh, I did not revise it. I had the  
12 map. Sorry, I misunderstood you.

13          MR. LAMB: You know what, I apologize, sir. Ship  
14 to shore doesn't get all the words. So you might have  
15 heard me say rely. I said did you revise, did you change  
16 the watershed map in the Huitt-Zollars report?

17          DR. CHANG: No, sir.

18          MR. LAMB: Okay. Thank you.

19                 Did revise or change the geomorphic hazards map  
20 in the Huitt-Zollars report?

21          DR. CHANG: No, sir.

22          MR. LAMB: Thank you.

23                 In your first work on the project, did you  
24 question the need for debris basins, detention basins,  
25 retention basins, collection channels, collection berms,

1 and collection guide banks on the alluvial fans that  
2 impact the northern boundary of the proposed Calico Solar  
3 Project?

4 DR. CHANG: I questioned that right away. Yes,  
5 sir. I questioned that right away.

6 MR. LAMB: Okay. And can you tell us when you  
7 made the determination that none of those structures were  
8 necessary?

9 DR. CHANG: Well, I made the determination as I  
10 was doing the study.

11 MR. LAMB: I appreciate that, sir. I'm trying  
12 the figure out like what month of this year.

13 DR. CHANG: I say July.

14 MR. LAMB: July. And did you relay that to  
15 someone at the applicant?

16 DR. CHANG: Yes. I talked to Mr. Byall.

17 MR. LAMB: Mr. Byall?

18 DR. CHANG: Right.

19 MR. LAMB: So you told Mr. Byall that information  
20 in July.

21 DR. CHANG: That's correct

22 MR. LAMB: Are you aware, sir, that in August he  
23 testified under oath, under penalty of perjury in Barstow  
24 about the applicant planning to use detention basins?

25 DR. CHANG: I'm not aware of his testimony. I

1 don't know.

2 MR. LAMB: Okay. Are there alluvial fans in  
3 San Bernardino County?

4 DR. CHANG: Yes.

5 MR. LAMB: Are there debris flow fans in  
6 San Bernardino County?

7 DR. CHANG: That's how -- yes.

8 MR. LAMB: Okay. Are there flood-related hazards  
9 on alluvial fans?

10 DR. CHANG: Well, I have determined some, but  
11 other people study, I'm not aware of any other study.

12 MR. LAMB: Well, you used the Fluvial 12  
13 Analysis, right?

14 DR. CHANG: Yes, sir.

15 MR. LAMB: And that is not an analysis that has  
16 been approved by FEMA for alluvial fans, correct, sir?

17 DR. CHANG: Well, we have never tried. FEMA  
18 staff hasn't told me anything one way or the other.

19 MR. LAMB: Well, FEMA has approved methodologies,  
20 right?

21 DR. CHANG: Yes.

22 MR. LAMB: And Fluvial 12 is not one of them,  
23 right?

24 DR. CHANG: I don't think they have any criteria  
25 for sediment modeling study. I'm not aware of any.

1 MR. LAMB: Okay. Sir, you have --

2 DR. CHANG: They have not said anything -- they  
3 have not set any criterion for sediment study to my  
4 knowledge.

5 MR. LAMB: Okay. FEMA has not approved of the  
6 Fluvial 12 process, right?

7 DR. CHANG: I don't know their position. They  
8 have not told me their position.

9 MR. LAMB: Well, you read the literature, right,  
10 sir?

11 DR. CHANG: Yes.

12 MR. LAMB: And you're aware that FEMA does  
13 approve certain processes, plans, and form of analysis,  
14 right?

15 DR. CHANG: Well, I'm not aware of anything FEMA  
16 approve. I talk to FEMA people over the years on this  
17 subject. They have not approved anything, they have not  
18 taken any official position of any sediment models.

19 MR. LAMB: Any of your sediment models.

20 DR. CHANG: Including any. I mean, all the  
21 sediment models.

22 MR. LAMB: Okay.

23 DR. CHANG: They have no position on them.

24 MR. LAMB: Are the alluvial fans above the  
25 proposed Calico Solar Project active alluvial fans or

1 inactive alluvial fans?

2 DR. CHANG: They are quite inactive.

3 MR. LAMB: Have you updated the map from the  
4 Huitt-Zollars report prepared by West Consultants which  
5 shows that the alluvial fan complex emanating from the  
6 Cady Mountains are active alluvial fans that possess  
7 extreme and high flood hazard potential all the way down  
8 to the BNSF right of way?

9 DR. CHANG: I read that report, I was consultant.  
10 My opinion is different from their opinion. That's their  
11 opinion on geomorphology. I've stated my opinion on  
12 geomorphology. We have different opinion.

13 MR. LAMB: Okay. So you disagree with  
14 Huitt-Zollars on that.

15 DR. CHANG: I disagree with the West study, yes.

16 MR. LAMB: Okay. And you understand that  
17 Huitt-Zollars says that that's and extreme to high flood  
18 hazard potential all the way down to the BNSF right of  
19 way, right?

20 DR. CHANG: I also disagree with them, yes.

21 MR. LAMB: Okay. Could I have a moment, please.

22 With the indulgence of the -- with the indulgence  
23 of the Committee, one of our experts, Mr. Hamilton, would  
24 like to ask some questions directly. It would probably be  
25 more time efficient if he does it than to try to relay it

1    though me.

2           DR. CHANG:   Well, sure.

3           HEARING OFFICER KRAMER:   How long do you think  
4   that will take?

5           MR. LAMB:    I think just a few minutes.

6           DR. CHANG:   Yes, go ahead.

7           HEARING OFFICER KRAMER:   Let me ask the other  
8   parties, are any of the other parties planning on asking  
9   questions of Dr. Chang?

10          MR. BASOFIN:   Josh Basofin, Defenders of  
11   Wildlife.  I have just a handful of questions for  
12   Dr. Chang, and most of my questions have been asked by  
13   Mr. Lamb, but there may be a few remaining.

14          HEARING OFFICER KRAMER:   Okay.  So five or ten  
15   minutes?

16          MR. BASOFIN:   I think so.

17          HEARING OFFICER KRAMER:   Okay.

18                   And on the telephone?

19          DR. CHANG:    Yeah, I'm on the phone.  I'm waiting  
20   for Mr. --

21          HEARING OFFICER KRAMER:   No, did somebody else on  
22   the telephone --

23          MR. LAMB:    I think it was Pat Jackson, sir.

24          HEARING OFFICER KRAMER:   Was that you,  
25   Mr. Jackson?



1 MR. JACKSON: Yes, it was.

2 HEARING OFFICER KRAMER: And how long do you  
3 think your questions will take?

4 MR. JACKSON: I only have about three or four  
5 questions.

6 HEARING OFFICER KRAMER: Okay. So I'm just  
7 trying to find a break here.

8 MS. MILES: And I have questions, but they're  
9 being covered actually, so any time that I would have used  
10 can be ceded to Mr. Lamb.

11 HEARING OFFICER KRAMER: Okay. Staff, were you  
12 planning on any questions, Mr. Adams?

13 STAFF COUNSEL ADAMS: For Mr. Chang, no.

14 HEARING OFFICER KRAMER: Yes. Okay. Thank you.  
15 Go ahead.

16 MR. HAMILTON: My name is Douglas Hamilton.

17 Dr. Chang, it's Doug Hamilton speaking.

18 It's just a very few questions; it shouldn't take  
19 more than a few minutes.

20 DR. CHANG: Sure

21 MR. HAMILTON: In January 2010 you also did a  
22 Fluvial 12 and sediment transport study for the Imperial  
23 Valley Solar Project. And I think the same issue came up  
24 there where you were looking at the possible use of  
25 detention or retention of some type of sediment trapping

1 facility actually within a channel. And that would trap  
2 some sediment. And I think even in that study you pointed  
3 out that that could cause a problem with downstream  
4 erosion.

5 Do you remember this study I'm talking about?

6 DR. CHANG: I remember that study, they did plan  
7 the put in some detention basins, but because of  
8 recommendation, they end up removing those detention  
9 basins.

10 MR. HAMILTON: Right. And --

11 DR. CHANG: Those detention basins would reduce  
12 sediment flow toward downstream that has adverse impact.

13 MR. HAMILTON: Yes. My question is, I reviewed  
14 that study and I noticed in the results of the Fluvial  
15 modeling it didn't really show any erosion or degradation  
16 of the channel bed downstream of the proposed detention  
17 basins when you were looking at the proposed condition  
18 analysis.

19 DR. CHANG: What I did was to show a reduction of  
20 sediment flow towards downstream. I did quantify the  
21 reduction of sediment flow, that's correct, but I did not  
22 model anything downstream outside the project site.

23 MR. HAMILTON: And, of course, you don't have the  
24 document with you, but I noticed that the model results  
25 showed no increased erosion of any degree downstream from

1 the proposed basin, which is what you'd expect if you --  
2 if trapping sediment had that effect, I would have  
3 expected to see it in the computer model. And I didn't  
4 see it.

5 DR. CHANG: You are right, because our model did  
6 not extend outside the project site. Only thing we did  
7 was to show a reduction of sediment flow toward  
8 downstream. That, of course, should increase the scour,  
9 but we did not model through channel downstream of the  
10 project site. You are correct.

11 MR. HAMILTON: All right. My other -- I have two  
12 more questions.

13 If on the Calico site, so this is the project at  
14 hand that we're talking about today --

15 DR. CHANG: Right.

16 MR. HAMILTON: -- regarding water flowing from  
17 the mountains over the alluvial fans towards the project  
18 site and ultimately down to the BNSF right of way, if  
19 there was a way to build some type of structure that did  
20 not trap sediment but better controlled the amount of  
21 water, better controlled the flow of water in discrete  
22 flow paths, and then that would tie into the places where  
23 we know the water crosses the railroad today, is that an  
24 option that you considered?

25 DR. CHANG: I did not consider that option, no,

1 because that's going to change the sediment flow also,  
2 because water flow directly changes sediment transport.

3 MR. HAMILTON: Okay. But if there could be  
4 something designed that did not trap a lot of sediment,  
5 then you'd be less concerned about doing something of that  
6 nature as a flood mitigation alternative.

7 DR. CHANG: I say I would be less concerned.  
8 You're correct.

9 MR. HAMILTON: Okay. Thank you.

10 Finally, in your study of September -- of July of  
11 2010, you did some Fluvial 12 runs, and one of them was of  
12 a -- I think it was a -- what you described in the report  
13 as a typical desert wash that was maybe 15 to 20 feet wide  
14 and about a foot deep. And then I noticed in the  
15 Fluvial 12 model analysis you used a discharge of 40 cubic  
16 feet per second, whereas the amount of flow coming out of  
17 the mountains, at least according to the Huitt-Zollars  
18 studies, you know, there's a -- there might be five  
19 separate alluvial fans, but each one of those exceeds  
20 1,000 cubic feet per second as far as the amount of flow  
21 that comes down. So I'm wondering how confident are you  
22 that the water's actually going to -- if you did have  
23 1,000 cubic feet per second, that it would be divided up  
24 into 25 of these discrete washes that you've observed.

25 DR. CHANG: Okay. You know, I use 40 cfs because

1 for the wash we modeled, that's the maximum discharge the  
2 wash can carry. So in that maximum depth of the wash is  
3 on only about a foot. If the water discharge exceeds that  
4 40 cfs, for example, then water would spread out, very  
5 large overbank areas, perform sheet flow. What stays in  
6 the wash itself, the maximum discharge is still the bank  
7 flow discharge; that is, the discharge which you would  
8 have the water depth one foot. Any discharge exceeding  
9 40 cfs would simply spread out to a very large area.

10 MR. HAMILTON: I see. Okay. Let me conclude  
11 then with this final question.

12 What if during this large flood event that the  
13 channel that you see there today actually erodes down and  
14 becomes four or five feet deep, then it could hold a lot  
15 more water in that -- I mean, just based on, you know, my  
16 experience and dealing with a lot of the same people that  
17 you know, that's sort of their understanding of how floods  
18 on alluvial fans work. And I'm wondering if that's a  
19 possibility that you think is important to consider in the  
20 design of this flood mitigation for this site.

21 DR. CHANG: Well, that's a very good question.  
22 You know, this alluvial fan has a mild train of sediment  
23 deposition. If the flow is much higher than 40 cfs, that  
24 water comes down, it also carries the sediment. You know,  
25 that water-sediment mixture, what it does actually is to

1 deposit some of the sediment on the alluvial fan during  
2 the deposition processes. Water would even spread out  
3 even more to larger width. The bank height would become  
4 even less. That means the wash would be come shallower,  
5 the flow would be become greater sheet flow.

6 So, you know, sheet flow is not detrimental,  
7 because sheet flows are very shallow, sheet flow carry a  
8 much smaller velocity.

9 MR. HAMILTON: Dr. Chang, thank you very much.  
10 And I appreciate the time speaking with you.

11 DR. CHANG: My pleasure, Mr. Hamilton.

12 MR. HAMILTON: Thank you.

13 HEARING OFFICER KRAMER: Is that it, Mr. Lamb?

14 MR. LAMB: Oh, no, sir. I just wanted him to ask  
15 a couple questions. I'm done

16 HEARING OFFICER KRAMER: Okay. Then you have  
17 some more?

18 MR. LAMB: No, sir.

19 HEARING OFFICER KRAMER: Okay. Mr. --

20 MR. LAMB: I'm sorry. I tried to make that  
21 clear.

22 HEARING OFFICER KRAMER: Mr. Basofin.

23 MR. JACKSON: Did you say Mr. Jackson?

24 HEARING OFFICER KRAMER: No, Mr. Basofin.

25 We'll get to you, Mr. Jackson.

1 MR. BASOFIN: Thank you.

2 CROSS-EXAMINATION

3 MR. BASOFIN: Mr. Chang, this is Joshua Basofin  
4 with Intervenor Defenders of Wildlife. I just have, I  
5 think, two or three questions for you to follow up from  
6 Mr. Lamb's examination.

7 In addition to the hydrologic study that you  
8 completed on the site, did you also complete a stormwater  
9 modeling?

10 DR. CHANG: No.

11 MR. BASOFIN: Okay. And did you assess the  
12 potential for scour from stormwater on the SunCatcher  
13 units?

14 DR. CHANG: All we studied was the local scour.  
15 We did calculate the local scour around the SunCatcher,  
16 around the pedestal to SunCatcher.

17 MR. BASOFIN: Okay. But you didn't, for example,  
18 assess through modeling the potential for scour on a  
19 SunCatcher unit from say a 100-year flood event?

20 DR. CHANG: You know, the only scour really is  
21 the local scour. The local scour is slightly less than  
22 three feet. That's what we have determined. The local  
23 scour is around the base of the SunCatcher, around the  
24 pedestal. That's the only scour we determined in the  
25 study.

1 MR. BASOFIN: Okay. Thank you. I think that's  
2 all I have. Thanks.

3 HEARING OFFICER KRAMER: Mr. Ritchie, I can't  
4 recall if you had any.

5 No?

6 Ms. Miles?

7 CROSS-EXAMINATION

8 MS. MILES: Just one follow-up question from  
9 Mr. Basofin's questioning regarding the modeling of scour  
10 around the SunCatcher units.

11 Dr. Chang, did you model the scour around the  
12 SunCatcher units in the aggregate? So in terms of, like,  
13 looking at not just one unit but a number of units on the  
14 floodplain.

15 DR. CHANG: No.

16 MS. MILES: Thank you.

17 HEARING OFFICER KRAMER: Mr. Jackson.

18 MR. JACKSON: Yes.

19 CROSS-EXAMINATION

20 MR. JACKSON: Yes. I won't take up too much of  
21 your time, Mr. Chang, so you can get back to your cruise.

22 A couple quick questions. I'm a little confused.  
23 My understanding is the water comes from the north and it  
24 sheet flows or drains down towards the south; is that  
25 correct?



1 DR. CHANG: That's correct.

2 MR. JACKSON: And you're proposing to remove the  
3 detention basins and the debris basins that were  
4 originally proposed on the north part of the project.

5 DR. CHANG: That's correct.

6 MR. JACKSON: Okay. And your report dealt  
7 primarily with sediment; is that correct?

8 DR. CHANG: That's also correct.

9 MR. JACKSON: So the water, if I am not mistaken,  
10 will run unrestricted down from the north towards the  
11 south until it essentially hits the SunCatchers or any  
12 other manmade structures; is that right?

13 DR. CHANG: That's correct.

14 MR. JACKSON: Okay. Now, when you did your  
15 study, were you provided any information on the  
16 applicant's proposal to add a Desert Tortoise exclusion  
17 fence along the northern part of the project?

18 DR. CHANG: No, I was not given that information.

19 MR. JACKSON: Okay. Now, my understanding is  
20 that the Desert Tortoise exclusion fence will essentially  
21 run perpendicular to the sheet flow and the water flow.  
22 Is it possible that the Desert Tortoise exclusion fence  
23 could have an impact on sheet flow hydrology debris, and  
24 conversely those would have -- could have an impact on the  
25 exclusion fence?

1 DR. CHANG: You know, that really depends on the  
2 decide. I have yet to see the design of the fence, so I  
3 cannot express my opinion at this point in time.

4 MR. JACKSON: But it could happen, it could have  
5 an impact.

6 DR. CHANG: It could happen. It really depends  
7 on the design of the fence.

8 MR. JACKSON: Thank you very much. I hope you  
9 enjoy your cruise.

10 DR. CHANG: Yeah, thank you.

11 HEARING OFFICER KRAMER: Okay. Before you go,  
12 staff, have you changed your mind about questions?

13 STAFF COUNSEL ADAMS: We do have questions for  
14 Ms. Bellows, but not for Dr. Chang.

15 HEARING OFFICER KRAMER: Okay. Is there anyone  
16 else on the telephone or in the room who wishes to ask a  
17 question of Dr. Chang?

18 DR. CHANG: Do you want me to stay on the phone,  
19 or can I --

20 HEARING OFFICER KRAMER: Just a minute, please.

21 DR. CHANG: I beg your pardon.

22 HEARING OFFICER KRAMER: Yes, please stay for  
23 just a minute.

24 STAFF COUNSEL ADAMS: Actually, I do have a  
25 question. Third consideration.

## 1 CROSS-EXAMINATION

2 STAFF COUNSEL ADAMS: Dr. Chang, this is Steve  
3 Adams from Energy Commission staff.

4 DR. CHANG: Yes, sir.

5 STAFF COUNSEL ADAMS: I think I heard you testify  
6 that your opposition to detention basins and debris basins  
7 would not change even if a subsequent drainage study  
8 indicated they might be necessary to protect project  
9 features or railroad other infrastructure. Can you  
10 explain that and what would serve as an alternative to the  
11 basins in your view?

12 DR. CHANG: Well, you know, the alternative is  
13 actually to place the restriction on the installation of  
14 SunCatchers. For example, if the water depth, we have  
15 actually ceded the conditions under which a SunCatchers  
16 should not be placed. So by restriction of SunCatchers is  
17 the way to get -- to avoid problems.

18 For example, if the water depth exceeds 1.5 feet,  
19 we should stay away from such places. If the sediment  
20 deposition exceeds 6 inches, we should stay away from such  
21 places. If the local scour exceeds the 3 or 4 feet, we  
22 should stay away from such places. So we do have a list  
23 of restrictions to limit the placement of SunCatchers,  
24 avoid problems to avoid impacts.

25 STAFF COUNSEL ADAMS: What if the studies proved

1 wrong your current opinion that the installation of  
2 SunCatchers would not change the flow or velocity over the  
3 project site?

4 DR. CHANG: I would like to see -- I would like  
5 to see the opinion of any objections or any questions  
6 before I can make a decision on that. I'd like to listen  
7 to what people have to say. If they disagree with my  
8 position, I really like to hear what they have to say.

9 STAFF COUNSEL ADAMS: Well, then based on your  
10 answers, would you -- would you -- are you amending your  
11 testimony to say that you would consider the addition of  
12 features to the project if a -- if the full drainage study  
13 that is planned indicates that some sort of structures or  
14 features are needed because of increased flow?

15 DR. CHANG: Right. Let me see. I'd like to see  
16 how they -- how they do the analysis, I'd like to see  
17 their analysis, I'd like to see their plans, I'd like the  
18 see their proposal. Then I can provide opinion.

19 STAFF COUNSEL ADAMS: Okay. Thank you. No other  
20 questions.

21 DR. CHANG: Sure.

22 HEARING OFFICER KRAMER: I think that's everyone.  
23 So --

24 MS. FOLEY GANNON: I have a couple of redirect  
25 questions.

1 HEARING OFFICER KRAMER: Some redirects; go  
2 ahead.

3 REDIRECT EXAMINATION

4 MS. FOLEY GANNON: Dr. Chang, this is  
5 Ella Foley Gannon. Couple of questions.

6 If the applicant were to establish performance  
7 standards that were related to the sedimentation,  
8 potential scour, changes in the hydraulics of the site  
9 related to, you know, the velocity or flow of the site,  
10 are those the types of performance standards that you can  
11 design stormwater controls to meet?

12 DR. CHANG: Well, have they establish any  
13 standard yet? I'd like to see what they are. I'd like to  
14 see what the standards are.

15 MS. FOLEY GANNON: My question is when -- if  
16 you're establishing -- let's say if the concern was about  
17 the impact on the railroad and on the trestles, the  
18 undercrossings, and if were you establishing a performance  
19 standard which said that the flows could not change and  
20 the sedimentation could not change as a result of project  
21 construction such that damage would occur to the railroad,  
22 is that a performance standard which you could use to  
23 design storm water controls on the project which may or  
24 may not include detention basins or other features?

25 DR. CHANG: Oh, I'm sure the railroad people

1 would request something, would require something like  
2 that, right? Railroad people definitely don't want their  
3 railroad to be impacted.

4 MS. FOLEY GANNON: In your experience, is --  
5 those are the types of standards that if you establish  
6 standards, you can design measures --

7 DR. CHANG: Measure can be a standard, yes, that  
8 can be a standard.

9 MS. FOLEY GANNON: And you can design measures to  
10 meet that. And are there studies that you can do to  
11 determine the types of measures that are necessary to meet  
12 those studies, those standards?

13 DR. CHANG: Yeah, we can do those studies.

14 MS. FOLEY GANNON: Excellent. Thank you,  
15 Dr. Chang.

16 DR. CHANG: Sure.

17 HEARING OFFICER KRAMER: Okay. I think that then  
18 takes care of Dr. Chang.

19 Thank you, sir --

20 DR. CHANG: Thank you.

21 HEARING OFFICER KRAMER: -- for the fifth time.  
22 Enjoy your cruise.

23 (Laughter.)

24 HEARING OFFICER KRAMER: I think we're all in  
25 need of a break.

1 Does anybody -- no objections. Will be accepted.

2 MR. LAMB: Can you just tell me what we're --  
3 what the protocol here is, because we jumped bio; are we  
4 going back to bio? What are we doing?

5 MS. FOLEY GANNON: We have two other Soils and  
6 Water witnesses, which we can make available for cross if  
7 you want to finish up with this testimony and --

8 ASSOCIATE MEMBER BYRON: Are they on a ship  
9 somewhere?

10 MS. FOLEY GANNON: They're on the telephone, but  
11 they're not on a ship.

12 HEARING OFFICER KRAMER: Well --

13 MS. FOLEY GANNON: They can be available whenever  
14 you would like them to be available.

15 HEARING OFFICER KRAMER: So thank you, Dr. Chang,  
16 and we will --

17 DR. CHANG: My pleasure. My pleasure. Okay.  
18 You know, Ms. Bellows has my phone number. I'll leave my  
19 cell phone on if you need to talk to me again. Now I'm  
20 going to say goodbye.

21 MS. FOLEY GANNON: Thank you, Dr. Chang.

22 DR. CHANG: My pleasure. Nice talking to you  
23 people. Bye-bye.

24 HEARING OFFICER KRAMER: We will take a 10-minute  
25 break. Be back here at 4:15 by the clock on the back

1 wall.

2 (Thereupon a recess was taken.)

3 HEARING OFFICER KRAMER: Let's go back on the  
4 record.

5 So I think we were to Ms. Gannon's other Soil and  
6 Water witnesses.

7 MS. FOLEY GANNON: Okay. I have two other  
8 witnesses who should be on the phone.

9 Bob Byall, are you on the phone?

10 MR. BYALL: I am.

11 MS. FOLEY GANNON: And Matt Moore.

12 PROJECT MANAGER MEYER: Hearing Officer Kramer,  
13 sorry to interrupt. I need to just get an idea if we're  
14 going to cover cultural, and dependent on how long CURE  
15 needs, I need to either let cultural staff know they need  
16 to just go and then be available by phone later, otherwise  
17 we're going to -- I'm not going to lose staff's  
18 availability. So it's your preference whether they do it  
19 now or call in later.

20 HEARING OFFICER KRAMER: Well, we could jump  
21 around I guess. How long is that going to take? We've  
22 got folks, other folks though just started on the  
23 telephone.

24 How long does it take them the get to -- I guess  
25 they'd be going home then?



1           So you'd be ready by 6:00?

2           Actually, we might be talking about a dinner  
3 break.

4           But into the evening then?

5           Chris will have your contact information so he  
6 you let you know. Will that work?

7           MS. ALLRED: Yeah, that would be great.

8           HEARING OFFICER KRAMER: And is it just the one  
9 person, Mr. Meyer?

10          MR. MOORE: Sorry to interrupt. This is Matt  
11 Moore. I'm not sure if I came through before when Ella  
12 was asking for me.

13          MS. FOLEY GANNON: Thanks, Matt. We'll be back  
14 to you in just a second.

15          PROJECT MANAGER MEYER: That's a question for  
16 CURE. Sarah is -- does archaeology. And I just want to  
17 get an idea of what exactly -- if CURE can explain what  
18 their questions are going to be on, we'll be able to  
19 decide which staff may need to be available.

20          MS. MILES: It's related to the cultural  
21 resources analysis for the project, in particular things  
22 that were coming up at the last minute in the mitigation  
23 strategy, testing, for example, that were coming up at the  
24 last minute during the last hearing. So things that we  
25 felt were not resolved and that we didn't have an adequate

1 opportunity to submit questioning on.

2           So I think it would probably be wise to just say  
3 that we'll need probably at least a half hour.

4           HEARING OFFICER KRAMER: But as far as who, I  
5 think I would say bring them both, because we may have our  
6 own questions.

7           PROJECT MANAGER MEYER: Okay. So are we saying  
8 that they're supposed to be ready to testify on the  
9 entirety of cultural resources, not specifically what  
10 we're talking about at this hearing?

11           HEARING OFFICER KRAMER: Well, I think a little  
12 bit of leeway is appropriate because of the -- all of the  
13 last-minuteness. I mean, the Committee in its order  
14 telegraphed a little bit of frustration about the -- that  
15 as well, so I -- you know, we're not going to go on  
16 forever about that, but the focused examination of points  
17 that were developing as we last spoke I think would be  
18 appropriate.

19           PROJECT MANAGER MEYER: Okay. I will have both  
20 built environment and archaeological staff available staff  
21 available on the phone.

22           HEARING OFFICER KRAMER: And will we be able to  
23 get an update on the status of the Programmatic Agreement,  
24 for instance?

25           PROJECT MANAGER MEYER: Staff has indicated yes.

1 HEARING OFFICER KRAMER: Okay. So then back to  
2 Soil and Water with the applicant.

3 MS. FOLEY GANNON: I have two witnesses, Bob  
4 Byall and Matt Moore, on the phone. Both have given  
5 testimony previously in these proceedings in which they  
6 were sworn, so I don't think they need to be sworn in  
7 again. Both have given written testimony on these  
8 proceedings describing, as well as previous live  
9 testimony. The written testimony was focusing on the  
10 changes between the scenarios and their belief that the --  
11 removing the detention basins would not change their  
12 analysis about the project's impacts.

13 In the interest of time, I think they can just be  
14 available for cross-examination or I can have them  
15 summarize their testimony.

16 HEARING OFFICER KRAMER: Quick summary would be  
17 useful I think.

18 Whereupon,

19 BOB BYALL, MATT MOORE  
20 having been previously sworn, testified as follows:

21 DIRECT EXAMINATION

22 MS. FOLEY GANNON: Okay. Mr. Byall --

23 MR. BYALL: Yes.

24 MS. FOLEY GANNON: -- can you provide a summary  
25 of your testimony regarding your analysis of the impacts

1 associated with scenario 5.5 and scenario 6?

2 MR. BYALL: Yes. As a reduction in the slight --  
3 we are under the current opinion that basins can be  
4 removed.

5 MS. FOLEY GANNON: And are you aware of the Soils  
6 and Water Condition 8 that has been proposed by the  
7 applicant?

8 MR. BYALL: We are. I am.

9 MS. FOLEY GANNON: And do you believe that that  
10 condition could -- will be sufficient to mitigate impacts  
11 associated with the project?

12 MR. BYALL: I do.

13 MS. FOLEY GANNON: And also, have you had an  
14 opportunity to review the staff's analysis in the addendum  
15 to the Supplemental Staff Assessment?

16 MR. BYALL: I have. And I believe those  
17 recommendations are also valid.

18 MS. FOLEY GANNON: And also, just for the  
19 Committee, prior to the start of this hearing we were able  
20 to discuss with staff an offer to stipulate to Soils and  
21 Water 8 as it is included in the Supplemental Staff  
22 Assessment, the addendum to the Supplemental Staff  
23 Assessment, and we are willing stipulate to that  
24 condition, and we have asked that they consider the  
25 inclusion in that condition of the performance standards

1 which we have suggested in our draft condition to further  
2 supplement it. And I believe they're looking at that.  
3 And when they give testimony, they can maybe address that  
4 issue.

5 And, Mr. Moore, can you just briefly summarize  
6 your analysis of the potential changes in relationship to  
7 scenario 5.5 and 6 and potential impacts?

8 MR. MOORE: Yes. I reviewed the text and maps  
9 describing the new project scenarios, 5 -- scenario 5.5,  
10 scenario 6, in removing the detention debris basins. It's  
11 my opinion that with implementation of best management  
12 practices on site, both during construction and operation,  
13 and compliance with Soil and Water Condition 8, that there  
14 would be no significant impact.

15 MS. FOLEY GANNON: Thank you.

16 They're both available for cross-examination.

17 HEARING OFFICER KRAMER: Mr. Lamb, do you want to  
18 wait awhile or --

19 MR. LAMB: Any time.

20 HEARING OFFICER KRAMER: Go ahead.

21 MR. LAMB: You tell me.

22 HEARING OFFICER KRAMER: Go ahead.

23 CROSS-EXAMINATION

24 MR. LAMB: Steve Lamb for BNSF.

25 Mr. Byall, now, you state in your declaration,

1 which is dated September 13th of 2010, that no debris or  
2 detention basins are planned for the site, correct?

3 MR. BYALL: Say that one more time, please.

4 MR. LAMB: You state in your declaration of  
5 September 13th that no debris or detention basins are  
6 planned for the site, correct?

7 MR. BYALL: As is currently configured, that is  
8 correct.

9 MR. LAMB: But as of the end of August of 2010,  
10 debris and detention basins were planned for the site,  
11 correct?

12 MR. BYALL: That is correct.

13 MR. LAMB: And originally the debris basins were  
14 planned to cover the northern portion of the project site,  
15 right?

16 MR. BYALL: Initially, that is correct.

17 MR. LAMB: And you understand that through a  
18 process of workshops and data requests, that one of the  
19 points that the staff made was that if there was a reduced  
20 footprint, that those debris basins would go south with  
21 the reduced footprint, correct?

22 MR. BYALL: Correct.

23 MR. LAMB: And in addition, up until the end of  
24 August of 2010, the conceptual plan at least was to have  
25 detention basins scattered throughout the interior portion

1 of the site, correct?

2 MR. BYALL: Say that one more time, please.

3 MR. LAMB: There was originally planned to have  
4 detention basins scattered throughout the site such that  
5 the water would come in a controlled manner from the  
6 debris basins through specific channels to the detention  
7 basins that were contained within the site, would then  
8 flow through other channels, go out towards the right of  
9 way and outwards towards the southwest, correct?

10 MR. BYALL: The initial -- the initial study by  
11 Huitt-Zollars prepared for the 30-percent plan for the  
12 82,000 acres, that is correct.

13 MR. LAMB: I'm sorry, did you say that's correct?

14 MR. BYALL: I did.

15 MR. LAMB: Okay. Now, other than the study that  
16 was performed by Dr. Chang, have you seen anything else  
17 that would indicate to you that no debris or detention  
18 basins are planned for the site?

19 MR. BYALL: There was a study by Mortenson that  
20 was given to us that -- I believe that it was in July,  
21 that suggested that we do away with the basins.

22 MR. LAMB: Okay. So you saw this Mortenson  
23 report suggesting to do away with the basins in July,  
24 correct?

25 MR. BYALL: Correct.

1 MR. LAMB: And you were aware of Dr. Chang's  
2 report in July where he recommended doing away with the  
3 detention basins, correct?

4 MR. BYALL: Correct.

5 MR. LAMB: But on August 6th of this year, you  
6 testified before the Commission under the premise that  
7 there would be detention basins, correct?

8 DR. CHANG: Correct.

9 MR. LAMB: And at page 35, lines 12 through 24,  
10 one of the things that you noted that you were concerned  
11 about was coming up with a balance between what naturally  
12 occurs and the interference we're going the cause by  
13 installing the SunCatchers, correct?

14 MR. BYALL: Correct.

15 MR. LAMB: So you understood then that in  
16 placement of the SunCatchers would interfere with the  
17 natural flow rate and sediment deposit along the site,  
18 correct?

19 MR. BYALL: No. What I said was the construction  
20 of our project may interfere with the sediment trap.

21 MR. LAMB: Okay. The testimony is that you said  
22 the interference we're going to cause by installing the  
23 SunCatchers.

24 MR. BYALL: I don't recall saying that.

25 MR. LAMB: Okay. So now you're saying that that



1 was a mistake, it should have been the interference you  
2 may cause by installing the SunCatchers?

3 MR. BYALL: Not the SunCatchers. The improvement  
4 plans, the site itself, the overall placement of the solar  
5 project, everything, not specifically one SunCatcher.

6 MR. LAMB: Well, you said SunCatchers. That  
7 would be plural. At the time there were supposed to be  
8 34,000, right?

9 MR. BYALL: Correct.

10 MR. LAMB: Now there's about 24,000, right?

11 MR. BYALL: Depending upon what the outcome  
12 comes, that may be the number, yes.

13 MR. LAMB: Okay. So when you stated on  
14 August 6th the interference we're going to cause by  
15 installing the SunCatchers, what did you mean, sir?

16 MR. BYALL: The initial report, before we talked  
17 to Dr. Soto and Dr. Chang, was we were going to install on  
18 an existing grid and we weren't going to change the  
19 alteration or the placement of SunCatchers. Since then we  
20 have altered that philosophy and are avoiding some washes  
21 per Dr. Chang's recommendation.

22 MR. LAMB: I appreciate that Mr. Byall. I want  
23 to know what you meant when you testified the interference  
24 we're going to cause by installing the SunCatchers. What  
25 did you mean? What interference?

1           MR. BYALL:   Some localized interference due to  
2 stormwater runoff.

3           MR. LAMB:    You say localized?

4           MR. BYALL:    I do.

5           MR. LAMB:    Okay.  Sir, weren't you always  
6 concerned with sediment travelling down to the BNSF right  
7 of way?

8           MR. BYALL:    No.  Sediment naturally -- sediment  
9 goes down to the BNSF right of way as it is right now.

10          MR. LAMB:    Okay.  So can you explain to me what  
11 you meant when you testified what we're trying to do is  
12 make it so that we don't have to go out after every storm  
13 that creates a fair amount of flow and go out and remove a  
14 whole bunch of sediment from our at-grade crossings?

15                        What did you mean by that, sir?

16          MR. BYALL:    The basins were installed so that we  
17 would have roughly 16 places to remove sediment from  
18 rather than at the at-grade crossing if and when sediment  
19 deposits occur on that site.

20          MR. LAMB:    Well, at the end of August you thought  
21 that they would occur and they would go down to the  
22 at-grade crossing, right?

23          MR. BYALL:    And it may -- that may happen with  
24 our without the basins.

25          MR. LAMB:    Well, do you agree that every storm is

1 going the create a fair amount of flow that's going to  
2 take sediment down to the basin -- down to the at-grade  
3 crossing?

4 MR. BYALL: I do not.

5 MR. LAMB: Okay. I'm going to quote your  
6 testimony and ask you what you meant when you said, quote,  
7 every storm that creates a fair amount of flow and go out  
8 and remove all whole bunch of sediment from our at-grade  
9 crossings, end quote. What did you mean by that?

10 MR. BYALL: I meant the storm that generate  
11 runoff large enough to collect and deposit sediment may  
12 deposit sediment at our at-grade crossings. That is not  
13 to say that every storm that comes along has that  
14 potential or will do that.

15 MR. LAMB: You're aware you were at that  
16 particular hearing session where we entered into a  
17 stipulation about the detention basins such that BNSF  
18 would have the opportunity to commission a report at the  
19 applicant's expense, and if the report stated that  
20 remedial measures needed to be taken, mitigation measures  
21 needed to be taken, that those would be undertaken on and  
22 in relation to the detention basins at the applicant's  
23 expense. Do you recall that

24 MR. BYALL: I do.

25 MR. LAMB: Okay. Can you explain to us why you

1 never once mentioned that the consultant and Dr. Chang had  
2 already recommended that there be no detention basins?

3 MR. BYALL: At the time, the company philosophy  
4 was that we were going to leave the basins in. That was  
5 with the basins or --

6 MR. LAMB: Okay. Let me get this straight then,  
7 sir.

8 So you're telling me that you had a belief at  
9 that time that detention basins are going to be bad,  
10 they're going to be counter-productive, but at that time  
11 you're recommending that they be put in place.

12 MR. BYALL: No, I didn't say they would be bad or  
13 counter-productive.

14 MR. LAMB: Well, that's what Dr. Chang said,  
15 right?

16 MR. BYALL: Dr. Chang said that they would  
17 interfere with the stability of the flow. I suppose that  
18 would be bad, or could be bad.

19 MR. LAMB: Well, did you hear Dr. Chang's  
20 testimony today? Were you on the phone?

21 MR. BYALL: For part of it.

22 MR. LAMB: Okay. Did you review his reports and  
23 his written testimony?

24 MR. BYALL: Yes, I did.

25 MR. LAMB: And would agree that his testimony is

1 that the emplacement of detention basins would be  
2 detrimental, would have a negative impact on SunCatchers?

3 MR. BYALL: I believe that we can design around a  
4 negative impact.

5 MR. LAMB: Did you understand my question, sir?

6 MR. BYALL: Evidently not.

7 MR. LAMB: Okay. Would you agree that Dr. Chang  
8 said that the emplacement of detention basins would have a  
9 negative and adverse impact on SunCatchers?

10 MR. BYALL: Yes.

11 MR. LAMB: But you were going to put in detention  
12 basins regardless.

13 MR. BYALL: We actually were toying with the  
14 idea -- or not toying with the idea -- we were concerned  
15 about our maintenance, and we weren't certain that we were  
16 going to take Dr. Chang's advice.

17 MR. LAMB: Okay. Did you coincidentally happen  
18 to decide to take Dr. Chang's advice on September 3rd when  
19 the Committee decided that the footprint was too large?

20 MR. BYALL: We discussed that possibility, yes.

21 MR. LAMB: Okay. Would you agree that that was  
22 the main force behind taking Dr. Chang's position, the  
23 September 3rd order that the Committee put out?

24 MR. BYALL: We felt that we could design around  
25 it as it was addressed.

1 MR. LAMB: Okay. It's not something that you  
2 ever mentioned about doing before that, right?

3 MR. BYALL: It is -- the basins are based upon  
4 final design, and we haven't done the final design yet.

5 MR. LAMB: When are you going to design the final  
6 design?

7 MR. BYALL: We're in the process right now.

8 MR. LAMB: When are you going to design the final  
9 design?

10 MR. BYALL: When the boundary has been evaluated  
11 and we can actually figure out where our stuff is going to  
12 be.

13 MR. LAMB: Okay. And would you agree in order to  
14 do that, you have to have a drainage study?

15 MR. BYALL: We have an initial drainage study,  
16 and you can't do a final drainage study until you have a  
17 boundary.

18 MR. LAMB: Would you agree, sir, that you need to  
19 complete a drainage study?

20 MR. BYALL: We have a drainage study. Are you  
21 asking me if there is a final drainage study for the  
22 project site required?

23 MR. LAMB: Okay. Mr. Byall, in order to  
24 determine what should be done on whatever the footprint of  
25 the project site is, you have to do a drainage study for

1 that specific footprint, correct?

2 MR. BYALL: Correct.

3 MR. LAMB: It has not been done, right?

4 MR. BYALL: Correct.

5 MR. LAMB: It was never done for the original  
6 footprint, right?

7 MR. BYALL: The final drainage study was never  
8 done for the original footprint.

9 MR. LAMB: Okay. Now, if that final drainage  
10 study indicated the detention basins or debris basins or  
11 collection basins were warranted, would you agree that  
12 they should be in place?

13 MR. BYALL: If the final study validates that  
14 premise, yes.

15 MR. LAMB: In paragraph 4 of your declaration of  
16 September 13th, you say, in the absence of detection  
17 basins, I anticipate additional maintenance work only  
18 after storm events large enough to result in stormwater  
19 flows onto the project site from the Cady Mountains.

20 Do you recall that?

21 MR. BYALL: Yes.

22 MR. LAMB: Okay. So basically it has to rain  
23 enough so that the rain goes from the Cady Mountains to  
24 the project site.

25 MR. BYALL: And has enough volume or velocity to

1 carry sediment.

2 MR. LAMB: Okay. How large a storm event is  
3 that, sir?

4 MR. BYALL: I would estimate around a five-year  
5 event.

6 MR. LAMB: And how frequently does a five-year  
7 storm occur?

8 MR. BYALL: It has a probability of happening  
9 once every five years.

10 MR. LAMB: Okay. But it could happen multiple  
11 times in the same year, right, sir?

12 MR. BYALL: That is correct, or it could not  
13 happen at all

14 MR. LAMB: Okay. For example, the probability of  
15 a hundred-year storm occurring is essentially one out of a  
16 hundred, right?

17 MR. BYALL: That is correct.

18 MR. LAMB: But the percentage probability is  
19 25 percent, right?

20 MR. BYALL: No. It's a probability of it  
21 happening once every 100 years. It's not that it happens  
22 25 percent of the time every year.

23 MR. LAMB: I didn't say that.

24 What is the probability of it occurring?

25 MR. BYALL: Once every hundred years.



1           MR. LAMB: I'm not talking about the probability  
2 of the number of times it's going to occur, I'm talking  
3 about it occurring at all.

4           MR. BYALL: I don't know how to answer that  
5 question.

6           MR. LAMB: Okay. All right.

7           You say that a five-year twenty-four hour storm  
8 should produce enough runoff to have the impact that  
9 you're concerned with in paragraph 4, right?

10          MR. BYALL: Not should, could.

11          MR. LAMB: Okay. The words you used were, "I  
12 anticipate such a storm will produce." Is that could or  
13 should?

14          MR. BYALL: Could.

15          MR. LAMB: Will produce is could, not should?

16          MR. BYALL: There is a possibility that that  
17 event is capable of transporting sediment downstream in a  
18 given streambed.

19          MR. LAMB: Okay. You just said it may, it could,  
20 it's possible. In paragraph 5 you say "I do not expect  
21 maintenance, removal, or restoration will be required for  
22 storms of lesser magnitude than the five-year  
23 twenty-four-hour storm. I anticipate such a storm will  
24 produce measurable runoff from the Cady Mountains onto the  
25 project site."

1           So you expect it's going to happen, right?

2           MR. BYALL: I expect there is a possibility of it  
3 happening, yes. I don't know for sure because I've  
4 actually never seen or -- I don't know, I'm not that  
5 familiar with that event. And what I meant to say was,  
6 there is a possibility of that occurring. If -- I'm not  
7 even certain that a five-year twenty-four-hour storm will  
8 actually produce runoff in that soil.

9           MR. LAMB: In paragraph 8 you say, "All drainage  
10 features are designed for a 100-year 24-hour storm."  
11 What's your basis for that statement, sir?

12           MR. BYALL: That is a FEMA requirement.

13           MR. LAMB: What drainage features are you  
14 referring to?

15           MR. BYALL: The original basin design was based  
16 on a 24-hour 100-year event. The retention basins for the  
17 difference between the pre-development flow and the  
18 post-development flow around the main service complex per  
19 the San Bernardino requirements are based on a  
20 hundred-year 24-hour event.

21           MR. LAMB: Okay. My question is when you say,  
22 "All drainage features," what drainage features are left  
23 that you're referring to? There's no detention basins  
24 anymore, right?

25           MR. BYALL: Right.

1 MR. LAMB: Okay. So what drainage features are  
2 you talking about?

3 MR. BYALL: I am talking about the retention  
4 basin at the main service complex.

5 MR. LAMB: So that's it.

6 MR. BYALL: That's it.

7 MR. LAMB: So when you say all drainage features,  
8 you mean the single remaining drainage feature, which is  
9 the retention basin by the main service complex.

10 MR. BYALL: There are two of them, and yes.

11 MR. LAMB: There are two retention basins?

12 MR. BYALL: So far. I mean, that's what the  
13 initial plan is.

14 MR. LAMB: Okay. Did you hear Dr. Chang's  
15 testimony that he recommended against them?

16 MR. BYALL: I did.

17 MR. LAMB: You're going to put them in anyway?

18 MR. BYALL: I am.

19 MR. LAMB: Why?

20 MR. BYALL: Part of our condition was to comply  
21 with the San Bernardino Drainage Ordinance, which I am  
22 going to comply with.

23 MR. LAMB: Okay. You say in your written  
24 testimony, "Sediment movement will be most noticeable  
25 along the railroad right of way as is current the case."

1 Then you say, "The project would not significantly alter  
2 this existing condition."

3 MR. BYALL: That is correct.

4 MR. LAMB: Sir, when you talk about storms, you  
5 use words like "may" and "could" and "possibly," how can  
6 you testify affirmatively that the project would not  
7 significantly alter this existing condition?

8 MR. BYALL: The overall impact of the site, the  
9 densities, the improvement for the densities, whether it's  
10 the SunCatchers, the roads, the main service complex,  
11 based upon past experience do not create enough to change  
12 the coefficient of runoff, therefore --

13 MR. LAMB: Based upon past experience, sir?

14 MR. BYALL: Based upon past experience.

15 MR. LAMB: What other SunCatcher field have you  
16 ever emplaced in a desert environment within the  
17 Mojave Desert?

18 MR. BYALL: None. However, I have --

19 MR. LAMB: What other SunCatcher field have you  
20 ever emplaced anywhere?

21 MR. BYALL: Actually, I have placed a SunCatcher  
22 field in Peoria, which is part of Sonoran Desert.

23 MR. LAMB: Where?

24 MR. BYALL: Peoria. It's a community in southern  
25 Arizona.

1 MR. LAMB: Okay. How many SunCatchers?

2 MR. BYALL: Sixty.

3 MR. LAMB: Sixty? Would you agree that the scope  
4 of that project is maybe just a little smaller than the  
5 one anticipated here?

6 MR. BYALL: The density for the 13-acre site  
7 would be the same as in 13 acres in any particular  
8 location.

9 MR. LAMB: Okay. That's the 60 SunCatchers that  
10 are emplaced on flat ground that was graded, correct?

11 MR. BYALL: Not been graded. It was -- it is --  
12 it was farmland, yes, but it was not -- we did not grade  
13 it.

14 MR. LAMB: It had been previously graded.

15 MR. BYALL: Yes, it was a farm field.

16 MR. LAMB: It's flat.

17 MR. BYALL: Relatively. It still slopes at a  
18 one-percent slope.

19 MR. LAMB: Okay. It's not in a floodplain,  
20 right?

21 MR. BYALL: That is correct, it is not.

22 MR. LAMB: Doesn't have an alluvial fan.

23 MR. BYALL: That is correct.

24 MR. LAMB: Isn't adjacent to a railroad.

25 MR. BYALL: That is incorrect.

1 MR. LAMB: It's adjacent to a railroad?

2 MR. BYALL: Yes. BNSF is 1500 feet to the --

3 MR. LAMB: Excuse me? It's where?

4 MR. BYALL: It's about -- I'd say it's probably  
5 about 2,000 feet to the east.

6 MR. LAMB: Okay. Above it, right?

7 MR. BYALL: Above it?

8 MR. LAMB: Where is it -- where is it in  
9 relation -- does the water flow from that site to the BNSF  
10 railway?

11 MR. BYALL: Oh, it is upstream, yes.

12 MR. LAMB: Yeah, the railway's above it.

13 Yeah. Okay. So is that the only project that  
14 you're referring to when you say experience?

15 MR. BYALL: As far as the SunCatcher field, yes.

16 MR. LAMB: Okay. You say sediment within the  
17 at-grade road crossings will be pushed out of the floodway  
18 and spread out. Right?

19 MR. BYALL: Yes.

20 MR. LAMB: So you expect some increases of  
21 sediment as a result of emplacing the SunCatchers along  
22 the BNSF right of way, right?

23 MR. BYALL: I expect some sediment to occur over  
24 the overall site, yes.

25 MR. LAMB: Okay. Sir, my question is specific.

1 You expect some additional sediment, more than what  
2 naturally occurs in the environment today as a result of  
3 the SunCatcher placement, correct?

4 MR. BYALL: No, I do not.

5 MR. LAMB: You don't?

6 MR. BYALL: I don't.

7 MR. LAMB: What do you base that on?

8 MR. BYALL: I base it on the fact that I don't  
9 believe the SunCatcher creates -- the SunCatcher field  
10 creates enough to change the coefficient, the runoff  
11 coefficient of the site, therefore, it will not increase  
12 the velocity or the volume coming off the site.

13 MR. LAMB: And you're relaying on Dr. Chang for  
14 that?

15 MR. BYALL: No. Actually, it was stated in the  
16 Huitt-Zollars report, it was stated in Dr. Chang's report,  
17 and it was stated in Mortenson's report.

18 MR. LAMB: Are you saying that the Huitt-Zollars  
19 report measured the coefficient of the emplacement of  
20 SunCatchers?

21 MR. BYALL: They made a recommendation based upon  
22 the preliminary design that they did at 30-percent level,  
23 yes.

24 MR. LAMB: Okay. They didn't do any of  
25 measurement, right, sir?

1 MR. BYALL: Didn't do any what measurement?

2 MR. LAMB: Of the coefficient.

3 MR. BYALL: No, they suggested that the  
4 coefficient did not change for the placement of runoff --  
5 or for the placement of SunCatchers.

6 MR. LAMB: Then why did they recommend detention  
7 basins?

8 MR. BYALL: Because velocities of the streams on  
9 the northern boundary based upon the fact that our  
10 northern boundary was close to the apex of those -- that  
11 alluvial fan.

12 MR. LAMB: Okay. You understand now that the  
13 present plan is to put SunCatchers as close as possible as  
14 they can be together so that you can get within whatever  
15 the project site that's approved, right?

16 MR. BYALL: No. The SunCatcher can only be  
17 installed on a 56-by-112 foot grid, unless you change the  
18 slope negatively, then we can -- it has to go farther  
19 apart. To say that we have to -- or that we are going to  
20 increase the density of the SunCatcher based upon the  
21 lower -- or smaller site isn't so.

22 MR. LAMB: I wasn't suggesting that you're  
23 increasing the density. You're putting them as close  
24 together as they can go, right?

25 MR. BYALL: They are -- the distance, whether it



1 was the 82,000, 62,000, or 13-acre site, and this  
2 latitude, they are 56-by-112 provided that the slope is  
3 positive.

4 MR. LAMB: Okay. When the SunCatchers are  
5 looking directly upwards, how far between SunCatchers will  
6 there be?

7 MR. BYALL: The pedestals are 15 --

8 MR. LAMB: Not the pedestal, the edge of  
9 SunCatchers. What's the distance between SunCatchers?

10 MR. BYALL: I'd have to figure it out. I can't  
11 tell you off the top of my head.

12 HEARING OFFICER KRAMER: Mr. Lamb, I think we'd  
13 be helped with sort of a road map to know where you're  
14 going here. I mean, the Committee is most -- we don't  
15 mean to tell you exactly what to produce, but we're most  
16 interested in trying to understand your client's concerns  
17 about the state of the, I guess, the design of the  
18 drainage, because that's pretty clearly what is of  
19 interest to you. And also any ideas that your client may  
20 have for how to go about resolving that, whether it's by  
21 performance standards or -- I think you've already played  
22 the further-study-and-wait-to-see-what-happens card. But  
23 I just offer that as a little bit of guidance, if you  
24 will.

25 MR. LAMB: Well, I appreciate that, sir.

1 I want to make it clear that it's not a card,  
2 though, because we take this very seriously.

3 HEARING OFFICER KRAMER: I'm sorry, I didn't mean  
4 to --

5 MR. LAMB: We've asked for layouts, and we've  
6 gotten nothing. We've gotten some materials that show  
7 what look like lines, but when they're blown up, they show  
8 a sequence of dots. And we're trying to find out where  
9 they're in place. So I would like to know if they know  
10 how far apart the SunCatchers will be. I haven't seen any  
11 document that states that or references that. We've asked  
12 for that over and over and over again. And if they don't  
13 know, they don't know.

14 MS. BELLOWS: Can I interject here for a second?  
15 In terms of measurement, distance between SunCatchers, we  
16 measure them from pedestal to pedestal. That's the way we  
17 measure them. I'm sure there is a measurement between  
18 dish, but we, honestly, that's not a number that we don't  
19 quote off top of our heads.

20 So the distance between the SunCatchers is  
21 measured by, from our standards, pedestal to pedestal with  
22 the understanding that the dish is 38 feet in diameter,  
23 right?

24 In terms of the layouts that we've given you, the  
25 layouts are exactly what we have from Mortenson

1 Construction to date. And each one of those dots on that  
2 layout is a SunCatcher. That's what we're using, and that  
3 is what we're planning to use moving forward in terms of  
4 our design. Now, obviously there will be underground  
5 cabling designs and that sort of thing, but in terms of  
6 getting an idea of how many SunCatchers go where, that's  
7 what we've got, and that's what we're using.

8 In addition to that, we also supply -- was a  
9 layout of the hydrogen on those two layouts as well.

10 MR. LAMB: What's the distance between pedestals?

11 MS. BELLOWS: I believe Bob just talked to that.  
12 Bob?

13 MR. BYALL: 56 feet north to south, 112 feet east  
14 to west.

15 MR. LAMB: I didn't hear the first specification.

16 MR. BYALL: 56 feet center to center north to  
17 south, 112 feet center to center east to west.

18 MR. LAMB: So the present design calls for  
19 putting SunCatchers throughout the entire area of the  
20 washes, there's no area in the washes that they're not  
21 going to put a SunCatcher?

22 MR. BYALL: That is incorrect. We will not put  
23 SunCatchers in where --

24 MR. LAMB: Well --

25 MR. BYALL: Let me finish.

1           If you're going to insist that we're putting  
2 SunCatchers in washes, you might as well know what the  
3 restrictions is. Dr. Chang spoke to that, and I will  
4 reiterate.

5           SunCatchers will not be placed in washes that  
6 have a water surface elevation that is greater than 1.5  
7 feet nor have a scour velocity that is combined local and  
8 general that are more than 4 feet.

9           MR. LAMB: Okay. I thought you were responded,  
10 Ms. Bellows, that there's no area that you're excluding.  
11 We're trying the figure this out. We've got a diagram.  
12 I've got it on a flash drive, we can blow it up. It's  
13 full of dots. There's no space that there isn't dots.  
14 None.

15           MS. BELLOWS: That's correct. And that's why we  
16 proposed performance standards on that, and that's why our  
17 proposal is that when we get into the detailed design, we  
18 will stay out of the washes. We have not gotten into --  
19 we have done a -- and, Bob, you can go into this in more  
20 detail than I can certainly, but we have not gotten to the  
21 level of specificity in terms of where those washes are on  
22 site and where we would stay out of those. We will be  
23 doing that as part of our final design, and that's what we  
24 have proposed.

25           MR. LAMB: Okay. Mr. Moore, are you still there?

1 MR. MOORE: Yes, I am.

2 MR. LAMB: You make the statement in your  
3 declaration that the conclusion of the modeling analysis  
4 was that with proper installation and maintenance of  
5 standard best management practices during construction and  
6 operations, that Calico Solar Project would cause no  
7 significant impact on soil erosion rates.

8 Do you recall that?

9 MR. MOORE: Yes, I do.

10 MR. LAMB: Okay. And you would agree that best  
11 management practices could include emplacement of  
12 detention basins, right?

13 MR. MOORE: Yeah. I wouldn't rule that out on  
14 most sites. It could include retention basis, it could  
15 include detention basins to control the stormwater flows.  
16 However, for this site, I think including detention basins  
17 may be not the best choice here.

18 MR. LAMB: Well, I guess what concerns me is if  
19 you don't really know because you haven't done the study,  
20 why are you already excluding them? Why don't you just  
21 say we're going to do study, this is the footprint we're  
22 left with, whatever we're required to do, we'll do? Why  
23 is there the assumption that there aren't going detention  
24 basins?

25 MR. MOORE: I believe we discussed this earlier

1 today, and in Soil and Water, the latest version of Soil  
2 and Water 8 indicates that we're going to provide a  
3 hydrology and drainage study that would analyze these  
4 impacts and potential impacts and mitigation on site  
5 including the BMPs.

6 MR. LAMB: Okay. So if BMPs call for detention  
7 basins to the north, south, and middle, you'll put them  
8 in?

9 MR. MOORE: I can't certify that statement.  
10 It's --

11 MS. BELLOWS: Can I say yes to that.

12 MR. MOORE: Basically my contention -- I don't  
13 know --

14 MR. LAMB: Here's my concern. When does yes mean  
15 yes? We've been told yes before a number of times about  
16 detention basins, and it keeps moving. That's the  
17 problem. You state, Mr. Moore, that it is likely that  
18 additional maintenance will be required on the project  
19 site in the absence of the previously proposed detention  
20 basins, correct?

21 MR. MOORE: Yes.

22 MR. LAMB: So you agree that because there won't  
23 be detention basins, there will be additional maintenance  
24 required, right?

25 MR. MOORE: I believe so.

1 MR. LAMB: And that would include maintenance  
2 down by the right of way, right?

3 MR. MOORE: Wherever maintenance is required.

4 MR. LAMB: But you would expect it go down to the  
5 BNSF right of way, right?

6 MR. MOORE: It could; I can't say that it  
7 couldn't.

8 MR. LAMB: Well, would you agree, sir, that for  
9 several months everyone was operating under the theory  
10 that it would?

11 MR. MOORE: That the debris would make its way  
12 down to the BNSF right of way? Is that the question?

13 MR. LAMB: Yes, sir.

14 MR. MOORE: I think there was concern that debris  
15 from upstream would increase maintenance on site, and  
16 that's why the debris/detention basins were proposed on  
17 the upstream side of the project on the north side.

18 MR. LAMB: Sir, for several months weren't you  
19 operating under the principle that it was likely that  
20 debris would go from the site to the BNSF right of way?

21 MR. MOORE: Without installation of the detention  
22 and debris basins on site.

23 MR. LAMB: Correct.

24 HEARING OFFICER KRAMER: I'm sorry, you need to  
25 keep your voice up here. You're a little faint up here at

1 the Committee's place.

2 MR. MOORE: From me? This is Matt Moore.

3 HEARING OFFICER KRAMER: Yes.

4 MR. MOORE: Okay, sorry. I'll try to speak up.

5 It was my assumption that the debris and  
6 detention basins would allow for better maintenance on  
7 site, better collection areas, centralized area -- or not  
8 centralized but certain areas where they could better  
9 maintain the site from a sediment and erosion control  
10 perspective.

11 MR. LAMB: But you were operating under the  
12 premise for several months that the emplacement of the  
13 SunCatchers on the site without detention basins would  
14 result in increased sedimentation flowing to the BNSF  
15 right of way, correct?

16 MR. MOORE: I wouldn't say increased sediment and  
17 debris to the BNSF right of way. I wouldn't say that I  
18 was under the impression that there would be increased  
19 sediment and debris down to the BNSF right of way.

20 MR. LAMB: Okay. Well, you would agree that  
21 there's going to be some increased sedimentation from  
22 scour, right?

23 MR. MOORE: Localized scour around the  
24 SunCatchers. I wouldn't necessarily agree that there's  
25 going to be increased sedimentation or scour downstream of



1 the SunCatchers.

2 PROJECT MANAGER MEYER: I'm sorry to interrupt,  
3 Mr. Lamb. I just, for my notes I want to make sure that I  
4 understand, because I've heard a couple different people  
5 talk about at-grade crossings, and at least in my notes I  
6 have two different at-grade crossings, were defined  
7 different ways.

8 There's one where when we -- originally the  
9 applicant had talked about putting culverts in, and, you  
10 know, so that there would be sort of raised crossings  
11 through the individual washes. And then they went back  
12 and they started talking about Arizona or at-grade  
13 crossings through the washes as opposed to sort of the  
14 at-grade crossing of the railroad tracks. And I -- if  
15 people, when they're talking, just keep that clear so that  
16 I keep track in my notes of what we're talking about,  
17 because I know there's a lot of talk about at-grade  
18 crossings in our documents that we're actually referring  
19 to the washes and had nothing to do with the railroad.  
20 But I know once you introduce the railroad, it becomes a  
21 confusing term.

22 So anyway, sorry to interrupt, I just wanted to  
23 ask if people could help me with that. Thank you.

24 MR. LAMB: Okay. Well, maybe I can ask it in a  
25 more basic way, Mr. Moore.

1           Would you agree with the premise that you  
2 believed and operated under the principle that the project  
3 itself would have an adverse impact on the BNSF right of  
4 way in terms of sedimentation?

5           MR. MOORE: I don't believe that's -- my  
6 assumption or my premise was that the debris basins,  
7 detention basins on site would help control flow through  
8 the site providing better locations for maintenance. I  
9 don't believe I was operating under the premise that we  
10 were going to have increased sedimentation at the  
11 BNSF Railroad.

12           MR. LAMB: Never entered you're mind.

13           MR. MOORE: I wouldn't say that the premise  
14 didn't enter my mind, but the -- my thought was on  
15 controlling flows in sedimentation on site providing  
16 better maintenance.

17           MR. LAMB: Okay. All right. Paragraph 7 you say  
18 the project would not significantly alter hydrology and  
19 sediment transport at railroad facilities. What is your  
20 basis for that statement?

21           MR. MOORE: My basis for that statement is that  
22 the project would create a minimal amount of impervious  
23 surfaces, less than -- I believe I state that in my -- in  
24 the statement, less than three percent of the site, that  
25 was would be the main services complex and any other

1 associated facility on site. All of those facilities are  
2 surrounded by pervious surfaces that would allow flows  
3 from those impervious surfaces to percolate into the  
4 adjacent pervious areas.

5 MR. LAMB: I'm sorry. Water's going to percolate  
6 from the pervious areas to the impervious areas, or vice  
7 versa?

8 MR. MOORE: Vice versa. From the impervious  
9 surfaces into pervious surfaces.

10 MR. LAMB: What study have you done to support  
11 that conclusion, sir? You don't have any design  
12 specifications. How do you know that that's going to  
13 happen?

14 MR. MOORE: It's based on my understanding of the  
15 site, review of project plans and reports, and I do not  
16 have a drainage report that's going to substantiate that, but  
17 with implementation of Soil and Water Condition 8, that  
18 would -- that's where that information's going to come  
19 out.

20 MR. LAMB: Well, Soil and Water 8 tells you the  
21 standard you to have meet, correct?

22 MR. MOORE: Correct. I'm not saying that this  
23 is --

24 MR. LAMB: But you don't know -- you don't  
25 know --

1 MR. MOORE: I do -- go ahead. Sorry, sir.

2 MR. LAMB: You don't know that you can meet that  
3 standard, do you?

4 MR. MOORE: I'm reasonably confident that we can  
5 meet that standard in Soil and Water 8.

6 MR. LAMB: But you'd need to have a drainage  
7 study done to support that, right?

8 MR. MOORE: That's correct. We've talked about  
9 this many times today, so I would agree with that  
10 statement

11 MR. LAMB: Okay. You say in your statement  
12 existing sedimentation and maintenance issues at railroad  
13 facilities represent an existing condition that would not  
14 be significantly altered by scenario 5.5 or 6.

15 MR. MOORE: That's correct.

16 MR. LAMB: What do you base that on?

17 MR. MOORE: That would be implementation of all  
18 the soil and water conditions contained in the Staff  
19 Assessment, drainage erosion, sediment control plan, Soil  
20 and Water Condition 8, implementation of a stormwater  
21 pollution prevention plan during construction. That's  
22 what I base it on.

23 MR. LAMB: What is your basis for your knowledge  
24 of what the existing sedimentation and maintenance issues  
25 are at the railroad right of way right now?

1           MR. MOORE: I have not reviewed the -- I'm basing  
2 it off of Dr. Chang's studies. I do not have -- I have  
3 not reviewed any BNSF --

4           MR. LAMB: Dr. Change didn't do anything where he  
5 studied the drainage facilities of the right of way, did  
6 he?

7           MR. MOORE: That, I don't know.

8           MR. LAMB: So do you know whether they're  
9 adequate or inadequate for a hundred-year storm?

10          MR. MOORE: The BNSF culverts?

11          MR. LAMB: Yes.

12          MR. MOORE: No, I do not.

13          MR. LAMB: Are you aware of any sedimentation or  
14 maintenance issues along the BNSF right of way right now?

15          MR. MOORE: I have observed, based on site  
16 studies probably a year ago, that there was some sediment  
17 accumulation at the upstream side of the BNSF Railroad and  
18 that it was being maintained.

19          MR. LAMB: Is it your testimony that the hundreds  
20 of miles of roadways will not have any impact on the  
21 drainage or flow of the site?

22          MR. MOORE: I can't say that it will have no  
23 impact or no change in the hydrology. It's my  
24 understanding that with the drainage report we will be  
25 able to demonstrate what the results of that are, pre and

1 post.

2 MR. LAMB: But as you sit here today, you don't  
3 know, right?

4 MR. MOORE: I don't have a pre and post drainage  
5 study that is based on the current site design that I can  
6 base my opinion on.

7 MR. LAMB: The roadway that goes around the site,  
8 is it graded?

9 MR. MOORE: That, I haven't looked at the latest  
10 design for that. I believe, you know, you asked these  
11 questions of Dr. Chang as well.

12 MR. LAMB: You don't know if it will --

13 MR. MOORE: The site design is fluid, and I have  
14 not looked at the latest -- I've looked at the -- at the  
15 latest site design for scenarios 5.5 and 6 and the other  
16 scenarios. The site is not finally designed, so I can't  
17 testify to whether that's going to be a paved road or a  
18 graded road.

19 MR. LAMB: How about the maintenance roads that  
20 go between every other row of SunCatchers?

21 MR. MOORE: It's my understanding that those  
22 would be non-paved roads.

23 MR. LAMB: Are they graded?

24 MR. MOORE: That, I don't know

25 MR. LAMB: Are they treated with Soil Tech?

1 MR. MOORE: They may be.

2 MR. LAMB: Wouldn't you want to treat them with  
3 Soil Tech so that when trucks go through they don't kick  
4 up gravel or dust and adversely impact the mirror surfaces  
5 of the SunCatchers?

6 MR. MOORE: That would be my understanding.

7 MR. LAMB: And if you emplace Soil Tech on any of  
8 roadways, would you agree that that makes them more  
9 impervious than if they would have been left in their  
10 natural state?

11 MR. MOORE: Yes.

12 MR. LAMB: Is that a yes?

13 MR. MOORE: That is a yes; however, I would say  
14 that keep in mind that the surrounding soil adjacent to  
15 the roadways is pervious surface, naturally-occurring  
16 ground.

17 MR. LAMB: How much rainfall can the  
18 naturally-occurring pervious absorb before there's runoff?

19 MR. MOORE: Well, there -- the site is very  
20 large, and it depends on the actual place that you're  
21 evaluating. Overall, it's my understanding in reading  
22 through the reports and my own evaluation of the site that  
23 the alluvial fan is able to accept up to a five-year  
24 twenty-four hour storm event, including runoff from any --  
25 any runoff from the mountains. That would be a five-year

1 twenty-four hour storm event without prior -- prior storm  
2 events. We talked about this with -- I believe Dr. Chang  
3 and Bob Byall talked about this a little bit.

4 You know, if we've got five-year twenty-four hour  
5 storm event, that assumes that there are no, you know,  
6 back-to-back storms prior to the five-year twenty-four  
7 hour storm event.

8 MR. LAMB: Let's try it this way, Mr. Moore:  
9 Would you agree that that desert terrain the ground does  
10 not absorb much water?

11 MR. MOORE: I would say the converse, that the  
12 ground does absorb quite a bit of water.

13 MR. LAMB: Really. More so than farmland or  
14 something like that.

15 MR. MOORE: Depends on what farmland we're  
16 talking, about what soils we're talking about. Are we  
17 talking about clay soil, you know, silty sand, a sand  
18 soil, are we flat, what the slope is.

19 These are -- the five-year twenty-four hour storm  
20 event is based upon site conditions that I observed and  
21 the terrain that I observed out at the site, including the  
22 soils themselves based on a hydrologic soil condition.

23 MR. LAMB: Okay. Three percent of site doesn't  
24 include the roadways, right?

25 MR. MOORE: I would have to get back to you on



1 that one. That's my understanding -- my understanding  
2 is --

3 MR. LAMB: Well, you did the calculation, right?

4 MR. MOORE: I did not do the calculation. I  
5 evaluated it. The impervious surface is less than three  
6 percent of site. That's what I stated to; that's based on  
7 the current design that I'm aware.

8 MR. LAMB: But it doesn't include the roadways,  
9 right?

10 MR. MOORE: I would have to -- I can't positively  
11 say that because I'm not aware -- you were asking me  
12 questions before about the perimeter roads and if they're  
13 paved or not, so I would have to look at that and get back  
14 to you.

15 MR. LAMB: Is it your testimony, sir, that a grid  
16 or checkerboard design of 24,000 SunCatchers placed 56 to  
17 112 feet apart from each other with rows of roads with  
18 Soil Tech every other row running north the south is not  
19 going to in any way change the flow of water that  
20 naturally goes from northeast to southwest across the  
21 site?

22 MR. MOORE: I can't say that it won't, but the  
23 design focus is to provide natural -- to mimic the natural  
24 drainage system as best as possible.

25 MR. LAMB: But you just don't know, right?

1 MR. MOORE: I can make a statement that I believe  
2 with proper implementation of BMPs on site and proper  
3 design, that the stormwater flow through the site would  
4 not be significantly altered.

5 MR. LAMB: You don't think it would follow that  
6 grid line, the pattern of the roads?

7 MR. MOORE: There may be the potential, but the  
8 roads are going to be at grade, there's not going to be  
9 necessarily raised roadways or something like that that  
10 would divert the flows.

11 MR. LAMB: Okay. I don't have any further  
12 questions.

13 HEARING OFFICER KRAMER: Okay. Among the  
14 intervenors?

15 MR. BASOFIN: I had one question.

16 CROSS-EXAMINATION

17 MR. BASOFIN: This is Joshua Basofin with  
18 Defenders of Wildlife. Just a follow-up question for  
19 Mr. Byall.

20 Mr. Byall, you testified that no SunCatchers  
21 would be placed in washes with water levels higher than  
22 1.5 feet; is that correct?

23 MR. BYALL: That is correct.

24 MR. BASOFIN: And how many of those types of  
25 washes are there on the site?

1 MR. BYALL: I can't say off the top of my head.

2 MR. BASOFIN: Okay. Did you hear --

3 MR. BYALL: I do know of several, but they are  
4 mostly on the southern side of the railroad tracks.

5 MR. BASOFIN: Did you hear Dr. Chang's testimony  
6 that there weren't any washes that were with banks higher  
7 than one foot?

8 MR. BYALL: Yes, I did.

9 MS. FOLEY GANNON: Just for a correction,  
10 Dr. Chang testified north of railroad there was no washes  
11 more than one feet deep. That was his testimony.

12 MR. BASOFIN: Right.

13 And so are you familiar, Mr. Byall, with washes  
14 that are more than one foot deep?

15 MR. BYALL: North of the railroad track?

16 MR. BASOFIN: Yes.

17 MR. BYALL: No.

18 MR. BASOFIN: The washes that you're familiar  
19 with that are more than one foot deep are south of the  
20 railroad track.

21 MR. BYALL: That is correct.

22 MR. BASOFIN: Okay. Thank you.

23 HEARING OFFICER KRAMER: Anyone else?

24 MR. JACKSON: Pat Jackson.

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

## 1 CROSS-EXAMINATION

2 MR. JACKSON: Yes. To any one of the gentlemen,  
3 was there studies, are there findings just specific to the  
4 project site, or did it include any outlying lands at all?  
5 Did it include private lands, did it include the right of  
6 way?

7 MR. BYALL: The initial hydrologic study, the  
8 conditions for hydrological study for the project site  
9 included the private lands and they're not a part.

10 MR. JACKSON: Did you say it did include?

11 MR. BYALL: It does include, yes.

12 MR. JACKSON: Well, that raises the question; I'm  
13 properly owner, and I own private land in that area and  
14 I'm very familiar with it. And I can say that almost  
15 certainty that there are washes that go through my  
16 property that are more than one feet deep, and those  
17 washes continue in a northeast to southwest direction  
18 across my property into the proposed project area. So I'm  
19 a little confused. How did anybody measure or determine  
20 the depth of these washes?

21 HEARING OFFICER KRAMER: Have we established you  
22 two are talking about the same not a part, because there  
23 are three of them.

24 MR. JACKSON: Okay. I own land in not a part 1.  
25 Are the washes that you're referring to -- excuse me, the

1 washes that you're referring to north of the Burlington  
2 Northern Santa Fe Railroad, the only private land that I  
3 see up there is sections 1 and sections 36 and  
4 not a part 1.

5           So you said that you conducted studies on these  
6 private properties, and there are no washes up there that  
7 are over 1 foot in depth; is that correct?

8           MR. BYALL: No. I said the Huitt-Zollars report  
9 did do a watershed study, including your property north of  
10 the BNSF Railroad. I am not familiar with your property.  
11 I did not go across your property or walk across your  
12 property, so I don't know what's on your property. All I  
13 know is what's on the project site, and that I can --  
14 those I took a look at.

15           MR. JACKSON: Okay. For anyone then, would  
16 project hydrology storm runoff sheet flow, could that  
17 affect not only the Burlington Northern Santa Fe right of  
18 way, but also the adjacent property?

19           MR. BYALL: You are upstream of us. We're not  
20 going to affect you at all.

21           MR. JACKSON: But my understanding, right, is  
22 that you're going to build a perimeter road and that  
23 you're going to add Desert Tortoise exclusion fences that  
24 run perpendicular to sheet flow. And I asked Dr. Chang if  
25 those -- that sheet flow -- excuse me -- if the water

1 runoff would have an impact on the Desert exclusion  
2 fencing and vice versa. And he said he didn't know.

3 Do you know?

4 MR. BYALL: I do not.

5 MR. JACKSON: Thank you.

6 HEARING OFFICER KRAMER: Anyone else on the  
7 telephone or in the room?

8 Mr. Adams?

9 STAFF COUNSEL ADAMS: Staff did reserve a few  
10 questions for Ms. Bellows, if now would be an appropriate  
11 time --

12 HEARING OFFICER KRAMER: Okay.

13 STAFF COUNSEL ADAMS: -- but none for the current  
14 witnesses.

15 HEARING OFFICER KRAMER: Before you get to her, I  
16 have a couple questions for these witnesses. And we may  
17 end up asking again of the others.

18 This is by way of general background. So what  
19 are the -- I gathered the positive aspects of detention  
20 basins are that it's a convenient place to collect  
21 sediment, it's really easy, it piles up rather than being  
22 spread a lot, it's a lot easier to collect and deal with  
23 as you need to. But are there any down sides to them that  
24 were a factor in either generally or in the most recent  
25 decision to remove the detention basins?

1 MR. BYALL: Yes, there are down sides. And I  
2 believe that Dr. Chang actually addressed that.

3 If the outflow from the detention basins is not  
4 adequately -- how should I say this -- disbursed, then  
5 basically what you have done is increased sediment-free  
6 water which will scour out that channel that it's being  
7 directed to and there will be some undercutting of that  
8 channel until it reaches its natural equilibrium again.

9 HEARING OFFICER KRAMER: So it's kind of like a  
10 solubility principle, you know, so much salt goes into  
11 water, and then you add a little bit more and nothing's  
12 going to happen because it's saturated?

13 MR. BYALL: That is correct.

14 HEARING OFFICER KRAMER: Okay. Thank you.  
15 That's helpful.

16 Now, there's a theme in Soil and Water 8 about --  
17 that suggests that you really can't eliminate all the  
18 sediment flows downstream because there are some receptors  
19 downstream that need or benefit from sediment.

20 So how do you -- could you sort of briefly talk  
21 about what those would be in the case of this project and  
22 roughly where they're located? And then how do you go  
23 about balancing the need to protect the site from sediment  
24 while allowing a certain amount to pass through it to  
25 downstream neighbors?

1           MR. BYALL: Sure. Currently the site has a --  
2 and I don't remember what the annual deposition is, but  
3 according to -- in the West report, which Dr. Chang  
4 doesn't quite agree with, the overall site will have a  
5 deposition of roughly three to four inches over the life  
6 of -- the 30-year life of the project.

7           And what happens is as the sediment comes off the  
8 Cady Mountains, it's large and small particles, because  
9 there's a huge amount of velocity. And with the velocity,  
10 the sediment is being able -- you can carry a large amount  
11 of sediment. As it progresses down the slope, the slope  
12 flattens out, and as it flattens out, the larger particles  
13 of the sediment start to fall out. And as you progress  
14 down towards the BNSF Railroad, you're left with a very  
15 fine sand. And if you've ever been out there, you'll note  
16 that if you travel up and down the BNSF Railroad,  
17 especially in its low spots, that sand is like sugar.  
18 While if you go farther northern on the site, it becomes  
19 more and more granular, larger grains. And the closer you  
20 get to the Cady Mountains, the bigger the rocks are.

21           If the basins are installed, it's a juggling  
22 game. You're still going to get a lot of the fine sand  
23 from the lower portion of it that are actually going to  
24 get washed out and carried. Some of those are blown  
25 across during wind events that get washed downstream later



1 on and carried through -- it's -- to do that kind of  
2 analysis for the area around BNSF as far as the fine sands  
3 goes, it's going to take some juggling engineering and  
4 also some trial and error.

5 HEARING OFFICER KRAMER: But that's a general  
6 standard for design, right? Isn't it that your neighbors  
7 are not really supposed to notice that you're there  
8 because the same amount of water and sediment is supposed  
9 to come to them in pretty much the same place whether  
10 you're there or not, correct?

11 MR. BYALL: That is correct.

12 HEARING OFFICER KRAMER: And do you think you're  
13 going to be able to achieve that for this project?

14 MR. BYALL: Yes.

15 HEARING OFFICER KRAMER: I guess literally that  
16 would involve over 30 years giving BNSF another three to  
17 four inches as you said of sediment right near their  
18 tracks.

19 MR. BYALL: Actually, they're going to get more  
20 because the three to four inches is only on the northern  
21 portion of it. The higher volume and higher velocity  
22 washes are actually on the southern part of the property.

23 HEARING OFFICER KRAMER: So they could see  
24 without the project roughly what?

25 MR. BYALL: It would depend upon the storm. They

1 could actually see some serious damage. And that has  
2 occurred over time.

3 HEARING OFFICER KRAMER: I mean as far as  
4 sediment deposition goes.

5 MR. BYALL: They could get more than three  
6 inches. They could get up to a foot or so in specific  
7 locations.

8 HEARING OFFICER KRAMER: And then they would just  
9 have to collect it at some point and haul it away or -- if  
10 they were concerned about that.

11 MR. BYALL: They do that currently.

12 HEARING OFFICER KRAMER: Okay. Any redirect?

13 MS. FOLEY GANNON: Yes, we do have a couple of  
14 questions.

15 REDIRECT EXAMINATION

16 MS. FOLEY GANNON: First off, Mr. Byall, when you  
17 testified in August that you were intending to include the  
18 detention basins in the project as it was proposed and you  
19 had been aware of the -- of Chang's recommendations, I  
20 think you were trying to explain in response to some of  
21 Mr. Lamb's questions, and I'm not quite sure you were able  
22 to articulate it, you said something about you were going  
23 to be able to design around the issues that Dr. Chang had  
24 identified.

25 Can you explain that?

1           MR. BYALL: Yes. Basically, if a detention basin  
2 has one large outlet, that is a concern that Dr. Chang  
3 has, if you diffuse that, where you spread out the  
4 discharge over a natural wash, depending upon what volume  
5 you let go, that's what we had in mind.

6           MS. FOLEY GANNON: Okay. And just to be clear,  
7 when you testified under penalty of perjury in August that  
8 your intention was to keep the basins in, I assume that  
9 that was your intention at that time; is that accurate?

10          MR. BYALL: Yes, to diffuse the outlet over --  
11 over an area.

12          MS. FOLEY GANNON: So your intent was to design  
13 the detention basins in a way that they would be able to  
14 address the issues that have been identified by Dr. Chang  
15 in his report; is that correct?

16          MR. BYALL: That is correct.

17          MS. FOLEY GANNON: And you were also speaking  
18 about the experience that you had that served as the basis  
19 for your exercise of your professional judgment. And I  
20 understand you've been involved in one solar field. Have  
21 you been involved in other projects in which you've had to  
22 deal with issues sedimentation or detention basins or  
23 design storms?

24          MR. BYALL: Yes. I have about 35 years worth of  
25 experience in land development.

1 MS. FOLEY GANNON: And has some of that been in  
2 desert environment?

3 MR. BYALL: It's basically all been in desert  
4 environment.

5 MS. FOLEY GANNON: Okay. Thank you.

6 And, Ms. Bellows, a question, follow-up for you.

7 There was a question or a statement from Mr. Lamb  
8 saying that -- wanting to understand when we can assume  
9 that the agreements that you're making are going to stick.

10 There was a discussion about the fact that there  
11 was an agreement that we made in the August hearings.  
12 What was the nature of that agreement?

13 MS. BELLOWS: The agreement was to do a study on  
14 hydrology.

15 MS. FOLEY GANNON: And to provide the mitigation  
16 measures designed?

17 MS. BELLOWS: That's correct.

18 MS. FOLEY GANNON: And is it your understanding  
19 that Soils and Water 8 as agreed to and stipulated with  
20 staff, would a hydrologic study be done?

21 MS. BELLOWS: Absolutely. Again, as I stated  
22 previously, we have no problem with that whatsoever, doing  
23 a hydrology report.

24 MS. FOLEY GANNON: And would the mitigation  
25 measures that are identified in that plan be implemented?

1 MS. BELLOWS: Yes.

2 MS. FOLEY GANNON: If that study identified the  
3 fact that detention basins were necessary to be able to  
4 protect BNSF or other resources, would you be prepared to  
5 implement that?

6 MS. BELLOWS: Yes, we would be.

7 MS. FOLEY GANNON: But it is your anticipation  
8 that detention basins will not be necessary; is that  
9 correct?

10 MS. BELLOWS: Right. I think the difference is  
11 we have removed them from our scenarios because our belief  
12 today is that we do not need them; however, we're happy to  
13 do the same report we were talking about doing previously  
14 to prove that out.

15 MS. FOLEY GANNON: And Soils and Water 8  
16 currently calls for a hydrologic study. I believe that  
17 Mr. Lamb was asking you a question with whether you're  
18 willing to do a hydrologic study that was completed by  
19 someone commissioned by BNSF. Are you still in agreement  
20 with doing that hydrologic study?

21 MS. BELLOWS: I'm in agreement with doing that.

22 MS. FOLEY GANNON: Thank you.

23 No further questions.

24 HEARING OFFICER KRAMER: Mr. Adams?

25 STAFF COUNSEL ADAMS: Actually, my questions were

1 just asked, so I have no questions.

2 HEARING OFFICER KRAMER: Okay.

3 MS. MILES: I have one question for Ms. Bellows.

4 HEARING OFFICER KRAMER: Go ahead.

5 MS. MILES: Or perhaps your experts.

6 CROSS-EXAMINATION

7 MS. MILES: I'm not sure who's going to know the  
8 answer to this, but I'd just like for you to clarify what  
9 roads are going to be paved, whether the layout has  
10 changed for the roads at all with the 5.5 and 6 scenarios,  
11 and also which roads are going to be paved, which ones are  
12 going to use soil tack and which ones will have -- and if  
13 any of them going to be crowned I think is the term, and  
14 if any of them are going to be unpaved and without soil  
15 tack.

16 MS. BELLOWS: Okay. Well, I'll take a crack at  
17 that; and, Bob, please step in if I mess up here.

18 The intention in terms of the scenarios is that  
19 the only difference in roadways versus scenario 5.5 and  
20 scenario 6 versus the 6,215 acreage is that there will be  
21 fewer roads, right, because there will be fewer rows of  
22 SunCatchers. That's the only difference. We're still  
23 supplying the access road completely around the site,  
24 that's sort of thing. And within, you'll have the same  
25 type of roadways between the SunCatchers.

1           The intention is that there -- all roadways will  
2 be treated with soil tack, and my understanding is that  
3 there are no paved roads within the project boundaries.

4           Is that correct, Bob?

5           MR. BYALL: Yes. The main entrance road has a  
6 gravel cap on it. Other than that, there is no what we  
7 would call traditionally paved roads, that is, asphalt or  
8 concrete.

9           MS. MILES: Thank you.

10          HEARING OFFICER KRAMER: One more question I  
11 forgot to ask.

12          Soil and Water 8, the way I read it says that you  
13 have to have 90 percent drainage plans approved by the  
14 project manager before you can start site mobilization.  
15 Is that your understanding?

16          MS. BELLOWS: That's the ways it reads, yes.

17          HEARING OFFICER KRAMER: Is that doable in the  
18 time that you have with all these variable that --

19          MS. BELLOWS: That's exactly what I asked the  
20 engineers over the weekend.

21          (Laughter.)

22          MS. BELLOWS: And my understanding is that a good  
23 bit of that is underway and could be produced relatively  
24 quickly.

25          HEARING OFFICER KRAMER: And it appears that just

1 the CPM is reviewing this, so is it the case that, maybe  
2 Mr. Meyer can answer, that the -- will the other agencies  
3 be involved just as consultants or not at all?

4 PROJECT MANAGER MEYER: Yeah. I think I'd have  
5 to double check to see any changes since the last time I  
6 saw the conditions based on this stipulations they've  
7 talked about earlier, but going through the compliance  
8 project manager instead of myself, the other agencies  
9 would review and comment on those.

10 HEARING OFFICER KRAMER: Do I have it correct  
11 though that the current version of the condition, unless  
12 we hear otherwise, that is being recommended is the  
13 version that is in the Supplemental --

14 PROJECT MANAGER MEYER: The SSAA --

15 HEARING OFFICER KRAMER: Yeah, the SSAA dated  
16 September 17th, I guess; is that right?

17 MR. LAMB: For the record, Hearing Officer  
18 Kramer, this is where I have difficulty, because I keep  
19 hearing someone say from the applicant it's the same thing  
20 as what they had stipulated to before, but it's not the  
21 same thing. And then, you know, I hear Ms. Bellows say,  
22 yes, we're agreeing to that; but that's not what it says  
23 right now.

24 And what they had agreed to back on August 25th,  
25 was, and I'm going to quote from the lawyer who just asked



1 her the questions, was, quote, prior to installing any  
2 SunCatchers or construction of the detention basins,  
3 project owner shall pay for a hydrology study commissioned  
4 by BNSF, which will determine the impact if any on the  
5 rail safety and BNSF operation of its planned placement of  
6 SunCatchers and detention basins and determine appropriate  
7 mitigation measures if necessary to be paid for by project  
8 owner.

9 HEARING OFFICER KRAMER: So it does talk about a  
10 hydraulic analysis. Is that not the same study you're  
11 speaking of?

12 MR. LAMB: No. There's a big difference between  
13 they do a study and we pick the people who do the study  
14 that they pay for.

15 HEARING OFFICER KRAMER: I see.

16 MR. LAMB: There's a huge difference there.

17 HEARING OFFICER KRAMER: So it's the preparer.

18 MS. FOLEY GANNON: But as we just said, we are  
19 happy to put that in the condition. We wouldn't say that  
20 it is to study the detention basins, it's to study what is  
21 necessary to be able to meet these performance standards,  
22 whether it's a detention basin or something else.

23 HEARING OFFICER KRAMER: And the -- my  
24 articulation of the basic performance standard that --  
25 except for maybe things on the horizon, you -- from water

1 flows, you can't really tell somebody moved in next door?  
2 Is that basically the standard that the railroad is  
3 looking to achieve, the applicant is perhaps reluctantly  
4 committing to achieve, and the staff is committing to  
5 enforce?

6 MS. FOLEY GANNON: Can you articulate your  
7 performance standard again?

8 MR. LAMB: Yeah.

9 HEARING OFFICER KRAMER: That the water flows  
10 that exit the property are substantially the same as those  
11 that are exiting it now in its undeveloped state. And --

12 MS. FOLEY GANNON: Shall do no harm.

13 HEARING OFFICER KRAMER: Okay. So if you could  
14 reroute it a little bit and it does no harm and your  
15 neighbor agrees, then you're okay. Something like that.

16 MR. LAMB: Well, that's a different standard,  
17 sir, than that what they do will not adversely impact the  
18 BNSF right of way. I mean, that's like saying, you know,  
19 I've put in all this 24,000 SunCatchers, and your tracks  
20 are flooded out, and then they say, well, it would have  
21 happened anyway, good luck.

22 That doesn't work

23 MS. FOLEY GANNON: But we agreed in the  
24 performance standards that we proposed specifically the  
25 language you just quoted, which is that we will not

1 adversely affect the BNSF Railroad. That's what we  
2 proposed.

3 HEARING OFFICER KRAMER: But does that mean to  
4 the extent that mother nature today would do them harm,  
5 that you're responsible for mitigating that as well?

6 MS. BELLOWS: No.

7 HEARING OFFICER KRAMER: So you just don't add to  
8 the problem.

9 MS. FOLEY GANNON: Right. We do not create a  
10 problem.

11 HEARING OFFICER KRAMER: And is that your  
12 understanding, Mr. Lamb? Are you hoping for more than  
13 that?

14 MR. LAMB: I'm always hoping for more than that,  
15 sir.

16 HEARING OFFICER KRAMER: But would you settle for  
17 less?

18 MR. LAMB: Occasionally, if you catch me on the  
19 right day.

20 (Laughter.)

21 MS. BURCH: I think it would be helpful to you to  
22 understand from our experts what our concerns are and  
23 understanding what that means. So that we -- that's said  
24 a lot simpler than implementing it. And so we find --

25 HEARING OFFICER KRAMER: Sometimes I use sound

1 bites, yes.

2 MS. BURCH: -- we find that kind of -- you know,  
3 it sounds very good, you know, but implementing it is very  
4 difficult. And so we would like to talk about that and  
5 have some meat on those bones.

6 HEARING OFFICER KRAMER: Okay.

7 Mr. Adams, are you poised to say something?

8 STAFF COUNSEL ADAMS: I was.

9 In the -- I think it goes to this issue that the  
10 applicant has proposed a separate Soil and Water 8 and  
11 asked us and in particular asked staff to -- this was  
12 Attachment E to applicant's testimony docketed on the  
13 15th, and asked staff to review the performance standards  
14 in its proposed condition, which we've done today, and I  
15 think we're prepared to testify as to that as part of the  
16 staff presentation, but that may go in part to BNSF's  
17 concern that what they understood to be part of the deal  
18 isn't reflected in staff's own Soil and Water 8 at this  
19 point.

20 MR. LAMB: That's correct, sir. And it includes  
21 things like originally we were told we would look at -- we  
22 would be able to see 30, 60, 90, and that's not in there  
23 now.

24 MS. BURCH: It might help if we had a, quote,  
25 unquote, have a quick workshop over dinner, you know, for

1 five minutes maybe.

2 I wonder if this is inadvertent. It could be,  
3 given the pace we've all been through this past week.

4 But if we could maybe meet over lunch --

5 STAFF COUNSEL ADAMS: Well, I think to offer a  
6 sneak preview, I think staff is prepared to testify that  
7 by and large they are comfortable with the performance  
8 standards provided in -- by applicant in its testimony.  
9 And I -- staff's review during the hearing has really  
10 focused on those performance standards and not so much the  
11 latter part of the draft condition that gets -- that may  
12 get into what BNSF sees and at what point. But perhaps  
13 that will at least in part address your concerns.

14 MS. BURCH: Perhaps, but I just have to say we  
15 didn't get the staff report until after we filed our  
16 comments. And now we've prepared this weekend based on  
17 the staff report, and we thought had you rejected that  
18 approach. And so, you know, it just keeps getting more  
19 difficult every five minutes.

20 I know what my client has approved for me to come  
21 into, based upon your staff report as of Friday. I don't  
22 know if you amend it to include what we found to be very  
23 nice sounding empty sound bites from the Soil and Water 8  
24 from a week ago Monday.

25 PROJECT MANAGER MEYER: Yeah. Given the pace,

1 and I -- I'm familiar with the pace of this machine  
2 because I've spent a little bit of time underneath it, the  
3 question I had for you is the Soil and Water 8, was  
4 there -- I know there was talk at one point of BNSF having  
5 language, recommended language on that. Is that something  
6 that --

7 MS. BURCH: We have that.

8 PROJECT MANAGER MEYER: Was that included, or was  
9 that in any of the versions was -- were they improved  
10 based on that, or is there still outstanding?

11 MS. BURCH: We were told at the August, I  
12 believe, 25th hearing to submit them in our comments on  
13 the preliminary decision.

14 PROJECT MANAGER MEYER: I'm sorry, that is --  
15 you --

16 MS. BURCH: If you recall.

17 PROJECT MANAGER MEYER: Thank you for reminding  
18 me. Yes, we -- the understanding that staff had was that  
19 BNSF would supply comments on Soil and Water 8 in the  
20 PMPD, in their PMPD comments, and staff would look at  
21 that, and we believe that we would basically stimulate or  
22 agree with the comments that BNSF had at that time.

23 So I'm sorry, that is -- thank your for helping  
24 me.

25 MS. BURCH: That's okay.

1 MR. LAMB: And that's where we had the  
2 discussions about the 30, 60, 90, but nothing was ever  
3 written up.

4 MS. BURCH: Well, no, that's not true. I have a  
5 written-up version that I exchanged with staff.

6 MR. LAMB: Final though, I meant final.

7 MS. BURCH: It just needs to be put into -- and  
8 my understanding is it comports with what they had agreed  
9 to.

10 PROJECT MANAGER MEYER: Okay.

11 HEARING OFFICER KRAMER: Is that something you  
12 could share with us this evening?

13 MS. BURCH: Yes.

14 HEARING OFFICER KRAMER: Were you planning to in  
15 fact?

16 MS. BURCH: Well, if it was appropriate. I  
17 couldn't tell.

18 HEARING OFFICER KRAMER: Well, it might be.

19 Ms. White has a question, perhaps.

20 MS. WHITE: And I just want to make a  
21 clarification.

22 There are other conditions being proposed in the  
23 Soil and Water section, and we would want to make sure  
24 that the drainage, erosion, and sediment control plan is  
25 consistent with the study that results from Soil and

1 Water 8, and that the SWPs, both for construction and  
2 operation, are consistent with the findings and  
3 recommendations coming out of the hydrologic study of the  
4 Soil and Water 8. And so as to ensure that all of the  
5 plans and documentation about soil and water erosion  
6 control, sediment control, flood controls are all  
7 consistent, is that the expectation?

8 PROJECT MANAGER MEYER: I can tell you, I'm an  
9 archaeologist, but I got stuck writing SWPs and DRECPs,  
10 you know, documents a few times and I've put a couple  
11 hundred miles of silt fence in, so I'm used to these being  
12 living documents. And we've always set up these plans  
13 with things of that nature to be living documents that as  
14 additional information comes in, they get modified so that  
15 what is being implemented in the field has to work. And  
16 if it's not working, the -- in this case the compliance  
17 project manager would look for success, and if it's not  
18 working, we would expect it to be fixed immediately. And  
19 the plan updated to make sure that you don't have the same  
20 problems repeatedly. But you're right, it's --

21 MS. BURCH: But initially it would be based on  
22 the results of the hydrologic study resulting from Soil  
23 and Water 8; is that correct, Ms. Bellows?

24 MS. FOLEY GANNON: We would think that would  
25 definitely be a major component in it.



1 MS. WHITE: Would that help to address some of  
2 BNSF's concerns?

3 MS. BURCH: It would. And then almost everywhere  
4 where you say, you know, that you're going to give it to  
5 people, it's going to be given to the project manager, if  
6 you put in what we had discussed with staff and the  
7 attorneys before was it would be provided to us for review  
8 and comment and to the CPM for review and approval so that  
9 we would have an opportunity to take a look, and now with  
10 this, what we view as a very significant change, we would  
11 want that change made in more soil and water conditions  
12 than just 8.

13 MR. LAMB: To have the same type of conformity  
14 you're talking about.

15 MS. BURCH: It's building on the same point  
16 you're making, we have to look at more now.

17 MS. FOLEY GANNON: And then one clarification we  
18 would seek is in our proposal we had said prior to  
19 installation of the SunCatchers, these conditions had to  
20 be met, the study had to be signed off on, and if the  
21 study needs to be signed off on by multiple parties other  
22 than the CPM, we would ask that that be considered as a  
23 proposal rather than prior to site mobilization.

24 MS. BURCH: Well, that wasn't the understanding;  
25 that was glint and glare.

1 MS. FOLEY GANNON: I'm saying what we proposed in  
2 Soil and Water 8 we think is a reasonable accommodation.

3 MS. BURCH: We stick with mobilization. This is  
4 a -- we can't process access until we know what the plan  
5 is, what the problem is, and what we to have solve. And  
6 then we'll know where we can put bridges or at-grade  
7 crossings or if we can allow people to drive down our  
8 right of way or not or whether it's dangerous in November  
9 or December when a flash flood could come to have trucks  
10 going up and down.

11 So if it's consistent with what Felicia said,  
12 that they can have 90 percent design which can't follow  
13 until 60 percent design and 30 percent design is done and  
14 which can't even begin until the hydrology study is  
15 completed, and it can happen in 30 days, then it's an  
16 incredible work load again, but that's what we're talking  
17 about. And that's what should be the goal if you want to  
18 get on the site.

19 MS. FOLEY GANNON: Then there would be no review  
20 time if we submit it, and in 30 days this is --

21 MS. BURCH: What can I -- you know, I --

22 MS. FOLEY GANNON: -- I think what --

23 MS. BURCH: Then I rest with my colleague's  
24 intervenor points here that this pace this is moving at is  
25 unbelievable.

1 MS. FOLEY GANNON: I guess what we'd ask the  
2 Commission to consider is what is necessary to be able to  
3 mitigate the impacts and to be assured that the impacts  
4 will be mitigated. We are proposing performance standards  
5 as a way to be able to do that, and we believe that this  
6 timing is a way that can also allow -- accommodate the  
7 project's need as well as allowing for the condition to be  
8 met. And obviously that's a decision that we will be  
9 probably be hearing more testimony on, but we hope that  
10 that -- that you can consider that.

11 HEARING OFFICER KRAMER: And your proposed time,  
12 your proposed timing again would be?

13 MS. FOLEY GANNON: Prior to installation of a  
14 SunCatcher.

15 HEARING OFFICER KRAMER: We'll note the request.

16 MS. FOLEY GANNON: That was in our proposed --  
17 that was our proposed language in our Soil and Water 8 as  
18 well.

19 HEARING OFFICER KRAMER: I know we've been --  
20 that testimony we've been talking about is Exhibit 114,  
21 just for the record. It's the testimony or -- I guess,  
22 yes, the testimony declaration of Felicia Bellows.

23 MS. FOLEY GANNON: Attachment E to 114, correct.

24 HEARING OFFICER KRAMER: Attachment E, correct.

25 MS. BURCH: So could I ask -- I just -- this is

1 just -- I'm sorry if I seem confused, but I thought that  
2 Ms. Bellows opened with I can live with Soil and Water 8  
3 as staff proposed it on Friday.

4 MS. FOLEY GANNON: And that was not saying that  
5 was going to be reviewed and approved by you at 30, 60, 90  
6 before we could install it, it was not saying it had to be  
7 removed by other --

8 MS. BURCH: That was part of our prior agreement,  
9 that we were seeking clarification.

10 MS. FOLEY GANNON: And we obviously had not seen  
11 staff's Soil and Water 8 when we had an earlier  
12 clarification with you. So I don't think it's a  
13 contradiction, and I don't think that Ms. Bellows is going  
14 back on what she said earlier. We're trying to respond.

15 HEARING OFFICER KRAMER: I'm inclined to ask  
16 everybody what they think again after we finish this  
17 testimony, just to be clear.

18 Okay. I think I may have asked, did any of the  
19 intervenors have soil and water witnesses?

20 MR. RITCHIE: We don't have a witness. I did  
21 have one -- a couple quick follow-up questions on Soil and  
22 Water 8 issues if -- since we're considering them.

23 HEARING OFFICER KRAMER: Okay. Do you think it  
24 would be better to wait until after the railroad's  
25 witnesses testify?

1 MR. RITCHIE: That would be fine, yeah.

2 HEARING OFFICER KRAMER: Put them on --

3 MS. FOLEY GANNON: If we can clarify, Hearing  
4 Officer Kramer, if there's no more questions for Mr. Moore  
5 or Mr. Byall, we can release them; is that correct?

6 HEARING OFFICER KRAMER: Unless you feel you  
7 might need them to respond to the railroad.

8 MS. FOLEY GANNON: Does Bob need to go?

9 Okay. We'll deal with it by E-mail

10 HEARING OFFICER KRAMER: So you may bring them  
11 back via E-mail

12 MS. FOLEY GANNON: Yes.

13 HEARING OFFICER KRAMER: Okay. All right.

14 So we're done with questions for the  
15 applicant's -- Mr. Ritchie, were your questions for them?

16 MR. RITCHIE: I think they're more directed  
17 toward Ms. Bellows, but they might be able to provide some  
18 insight, so it might be worth asking before we let them  
19 go.

20 HEARING OFFICER KRAMER: Okay. I think we were  
21 thinking about breaking for dinner at about 6:15, so  
22 you'll help us get there.

23 MR. RITCHIE: Okay.

24 HEARING OFFICER KRAMER: You don't have to take  
25 all the time though.

1 (Laughter.)

2 MR. RITCHIE: I understand.

3 CROSS-EXAMINATION

4 MR. RITCHIE: Since we were going back over the  
5 assurances of, you know, Soil and Water 8 will be met,  
6 will be met, BNSF's concerns will be met, I just wanted to  
7 put out there too, you know, BNSF's concerns aren't the  
8 only concerns. We've also discussed off-site sediment and  
9 critical habitat and the Pisgah ACEC where the sediment  
10 flows impact the Mojave Fringe-toed Lizard habitat there  
11 critically and other habitat. And it says in Soil and  
12 Water 8, the project shall not significantly alter  
13 sediment transport through project site, but it also says  
14 at number 5 that post-development runoff shall be equal to  
15 or less than pre-development runoff.

16 And I'm just wondering what happens, since we  
17 done have a drainage plan, we don't know precisely how  
18 these things are going to be interacting, what happens  
19 when a concern of BNSF is directly contradicted by a  
20 concern of the Mojave Fringe-toed Lizard, and how are we  
21 going to weigh that decision at a later date. And my  
22 concern is that right now we don't have a concept of what  
23 those conflicts are even going to be because we don't have  
24 a drainage plan, we don't know what's going to happen on  
25 the site. So I guess my question is what do we do when --

1 we can't just work our way through it a little ways down  
2 the line?

3 MS. FOLEY GANNON: I assume that you're trying  
4 the say you want to meet the existing conditions, you're  
5 not asking that we improve the conditions of the critical  
6 habitat that's downstream, correct? So we're trying --  
7 the standard is we're trying to meet the existing  
8 conditions.

9 As we just -- it was asked of BNSF a few moments  
10 ago, they're not asking that we improve the conditions at  
11 their railroad. So there is a way that those two  
12 conditions do not conflict right now. Apparently there's  
13 enough sedimentation that's getting to the critical  
14 habitat that's downstream, and it's not adversely  
15 affecting the railroad. So those conditions are being met  
16 currently. So we will meet those conditions after project  
17 construction.

18 MR. OTAHAL: I would also point out that the  
19 habitat is not downstream, it is actually upstream of the  
20 habitat -- the water flows toward the west, whereas the  
21 habitat is toward the east of the project. So the --

22 MR. RITCHIE: Of the Pisgah ACEC.

23 MR. OTAHAL: Exactly. So the flow of material  
24 across the project really does not impact that because  
25 we've already determined that the main source of the sand

1 in the Pisgah ACE is from the water flows coming from the  
2 Cady Mountains to the north of the Pisgah ACEC, and that  
3 there's very little that is actually wind blown across  
4 from the project site.

5 MR. RITCHIE: So then what about for the  
6 locations on site of the Whitemargin Beardtongue?  
7 Presumably sediment changes -- I mean, because those are  
8 located within the project footprint. And we have  
9 problems with that, the adequacy of that mitigation.

10 Anyway, but putting that aside, again, if the  
11 sediment is changing through the site and that's going to  
12 impact BNSF's railway and so we put up detection basins to  
13 stop sediment moving through the site or to stop flow  
14 moving through the site, but that in turn ends up, you  
15 know, negatively affecting the Whitemargin Beardtongue,  
16 when do we make these decisions or evaluations of, well,  
17 we're going to sacrifice beard the Beardtongue for the  
18 railroad, or we're going to -- you know, the railroad's  
19 going to do another study so that we can save the  
20 Beardtongue?

21 I mean, I guess the question that -- the reason I  
22 ask for the experts to stay on is maybe this stuff is too  
23 far out there, but from what I've read and what I see,  
24 there are too many standards and criterion here, and they  
25 may not all be able to be met. We might not be able to



1 design our way out of this because we don't know we're  
2 facing at this point.

3 MS. FOLEY GANNON: I think our answer would be  
4 the same.

5 MR. RITCHIE: In that --

6 MS. FOLEY GANNON: We believe --

7 MR. RITCHIE: -- you're confident you can design  
8 your way out of it.

9 MS. FOLEY GANNON: We are confident that we can  
10 design to meet the current conditions so that we will not  
11 be doing adverse -- we won't adversely affecting the  
12 resources as a result of sediment changes.

13 MS. BELLOWS: I mean, in addition, just going to  
14 the fact that we have -- you know, our contractor has come  
15 to us with a preliminary design. So we -- again, that  
16 backs up our level of confidence on the issue.

17 MR. RITCHIE: That's it

18 HEARING OFFICER KRAMER: Okay. Mr. Lamb, does it  
19 makes sense to start with your witnesses or --

20 MR. LAMB: Well, I thought you were going to have  
21 Mr. Ritchie ask his questions, but --

22 MR. RITCHIE: That was essentially it. I just  
23 figured if they were --

24 MR. LAMB: Oh, that was it?

25 I don't think it makes sense to start before

1 6:15. I still have a question how you can have a  
2 preliminary design if you haven't had a study yet. That  
3 just doesn't make any sense to me. So apparently they're  
4 out there designing something but they haven't even done a  
5 hydraulic study. None of this makes sense. Everything  
6 seems to me to be the cart before the horse here. And it  
7 really concerns us.

8 HEARING OFFICER KRAMER: Well, then maybe they'll  
9 have to buy two horses, or two carts. I'm not sure how  
10 that metaphor works.

11 (Laughter.)

12 MR. LAMB: It doesn't.

13 HEARING OFFICER KRAMER: Okay. Well, how about  
14 then we'll break for dinner. Everyone come back at  
15 7 o'clock by the clock in the back.

16 Do we have any housekeeping issues to talk about  
17 before we do that?

18 MR. BASOFIN: I have a --

19 PROJECT MANAGER MEYER: Go ahead, Josh.

20 MR. BASOFIN: I have one housekeeping issue.

21 My witness, Mr. Aardahl, is currently on his way  
22 back to his home in Gualala, and he will be in the  
23 passenger seat, so he'll be able to talk to us, although  
24 he will out of cell phone range on that journey for, I  
25 think, an hour to an hour and a half. So I wanted to

1 apprise you of that situation. I think that will be  
2 around 7 o'clock.

3 HEARING OFFICER KRAMER: That he's out of range?

4 MR. BASOFIN: That he'll be out of range.

5 Probably between something like 7:00 and 8:00.

6 HEARING OFFICER KRAMER: And he's on cultural?

7 MR. BASOFIN: Biological.

8 HEARING OFFICER KRAMER: Biological, that's  
9 right. Okay.

10 Well, if it helps, we're not done with soil and  
11 water yet.

12 MR. BASOFIN: He may be all the way home by the  
13 time we get to bio.

14 HEARING OFFICER KRAMER: Okay. That's not a  
15 goal, though.

16 MR. BASOFIN: And I'm not trying to curse us.

17 HEARING OFFICER KRAMER: Okay. Well, just for  
18 the record, Mr. Lamb estimated half an hour to an hour for  
19 his witnesses when we come back.

20 Mr. Meyer.

21 PROJECT MANAGER MEYER: Just two quick points.

22 Just, if it helps expedite things, I think we can  
23 deal with staff's direct in about 10 minutes if you wanted  
24 to squeeze that in for people to think about.

25 But just while you're thinking about that, just

1 as far as more housekeeping, on traffic, we have staff  
2 here waiting to answer any questions; but I'm curious, it  
3 sounded like the traffic concern was more of a project  
4 access not relating to the traffic analysis that was done,  
5 and if maybe people can clarify, if they actually need our  
6 traffic staff available or if it was more of an --

7 MR. LAMB: No, but is Mr. Weaver going to  
8 testify about soil and water?

9 PROJECT MANAGER MEYER: Yes.

10 MR. LAMB: Is he going to do that before our  
11 experts or after?

12 PROJECT MANAGER MEYER: I have no -- it's up to  
13 the Committee. I was just saying that since, you know, we  
14 have fairly quick, if they wanted to get it before the  
15 break or if you want to wait until after BNSF --

16 MR. LAMB: It might be helpful if -- I mean,  
17 Mr. Adams seemed to be inclined to believe that might help  
18 elucidate things for us, so -- which would be great.

19 PROJECT MANAGER MEYER: So before we get to that,  
20 does it sound like we can release our traffic and  
21 transportation?

22 MR. LAMB: I would agree with that. And then if  
23 you start want to start with Mr. Weaver and do him  
24 quickly, and then we'll go to our experts. Does that  
25 work?

1 HEARING OFFICER KRAMER: That's fine with the  
2 Committee. And this would be after we come back from our  
3 dinner break.

4 But as far as traffic goes, Mr. Jackson, you  
5 still with us?

6 MR. JACKSON: Yes, I am.

7 HEARING OFFICER KRAMER: Were you looking to ask  
8 any questions of the staff traffic witness?

9 MR. JACKSON: No.

10 HEARING OFFICER KRAMER: Okay. So I guess we  
11 could release the traffic witness.

12 So with that, let's make it 7:05 now. Be back  
13 here then.

14 And we're off the record.

15 (Thereupon a dinner recess was taken.)  
16  
17  
18  
19  
20  
21  
22  
23  
24  
25

EVENING SESSION

1  
2 HEARING OFFICER KRAMER: Okay. We'll go back on  
3 the record.

4 So I think we had decided that staff was going to  
5 go next with their soil and water witness, Mr. Weaver.

6 Right on time.

7 MR. WEAVER: Yes.

8 STAFF COUNSEL ADAMS: So staff has two witnesses,  
9 both of whom have been sworn previously; Casey Weaver here  
10 on my left, and I believe Steve Allen is on the phone.

11 Mr. Allen, are you there? I guess not.

12 MR. WEAVER: I think he --

13 HEARING OFFICER KRAMER: Hold on. I know that I  
14 tested the phone a minute ago, so I think it's still  
15 working.

16 How many people do we have?

17 Mr. Allen, are you on the phone?

18 Do you need to --

19 STAFF COUNSEL ADAMS: I think we can proceed  
20 without him.

21 HEARING OFFICER KRAMER: Okay.

22 Whereupon,

23 CASEY WEAVER

24 having been previously sworn, testified as follows:

25 ///

## 1 DIRECT EXAMINATION

2 STAFF COUNSEL ADAMS: So, Mr. Weaver, are you the  
3 sponsor of the soil and water section of the Supplemental  
4 Staff Assessment Addendum that was docketed on Friday the  
5 17th of September?

6 MR. WEAVER: Yes.

7 STAFF COUNSEL ADAMS: And do you have any  
8 additions to that testimony at this time?

9 MR. WEAVER: No.

10 STAFF COUNSEL ADAMS: Could you briefly summarize  
11 the content of that section?

12 MR. WEAVER: Sure. Everybody knows the reduced  
13 acreage portions that the applicant has provided as their  
14 alternative reduced acreage. You know, I ran my analysis  
15 initially on the full size of the project and subsequently  
16 looked at this smaller, you know, reduced acreage  
17 alternative scenario, 5.5 and 6. And basically all of the  
18 conclusions that I had arrived at previous still apply.

19 STAFF COUNSEL ADAMS: And can you characterize  
20 the thrust of the previous conditions that you're saying  
21 were not changed in major -- to major effect? Were  
22 all -- well, a further study required.

23 MR. WEAVER: Yeah. In the addendum you can see  
24 through underlined strike out the different revisions that  
25 we had made to the different conditions. Primarily I

1 believe it was Soil and Water 3 and Soil and Water 8 had  
2 most of the revisions. The rest of them were pretty much  
3 left alone.

4 STAFF COUNSEL ADAMS: Have you had an opportunity  
5 to review the applicant's proposed performance standards  
6 in Attachment E of their testimony dated September 13th  
7 and docketed September 15th?

8 HEARING OFFICER KRAMER: That would be  
9 Exhibit 114.

10 MR. WEAVER: Yes, I have. Exhibit 114, yes, I  
11 have.

12 STAFF COUNSEL ADAMS: And do you have any opinion  
13 of the proposed performance standards they've suggested in  
14 paragraphs 1 through 7 of that condition?

15 MR. WEAVER: Yes. We're in general agreement  
16 with the items that they've presented. A couple of them,  
17 we thought that with this additional work they may not be  
18 appropriate right now to specify 1.5 flood depth or 4 foot  
19 scour depth. So we thought maybe we would leave those out  
20 until the final hydrologic evaluation's done to readdress  
21 those particular depths and thicknesses.

22 STAFF COUNSEL ADAMS: With that exception, all  
23 the proposed performance standards seem appropriate to  
24 you?

25 MR. WEAVER: With minor changes, minor edits,



1 yes.

2 STAFF COUNSEL ADAMS: Do you want to go through  
3 those now?

4 MR. WEAVER: Sure.

5 I'll just go right to -- number one, we seem --  
6 it was fine and talks about watershed boundaries. I don't  
7 know if you want to talk about watersheds rather than the  
8 boundaries, because you could look at it and say, oh,  
9 well, we're just going to affect the edge, just the  
10 boundaries, but I know the intent is the entire watershed.

11 Second one, project construction shall not  
12 adversely affect any single railroad structure through the  
13 changes in the volume of water velocity of stormwater  
14 runoff reaching the railroad structure.

15 Again, "single" railroad might be too limiting.  
16 I'd recommend that you just strike "single" and have  
17 "railroad structures," because if it's multiple, then you  
18 wouldn't be held to that particular performance, if  
19 multiple structures that were affected instead of just  
20 one.

21 Number 3, the -- no SunCatcher shall be placed  
22 within a wash where hundred-year twenty-four hour water  
23 surface elevation would be more than 1.5 feet by the base  
24 of the pedestal. You know, if there's a wash and you have  
25 a hundred-year storm, it's likely you're going to exceed

1 1.5 feet in thickness, so probably "areas" rather than  
2 "wash."

3           Again, Dr. Chang's explanation of sheet flow  
4 coming out of banks and flowing over, I think is the  
5 intent of that, the 1.5 feet thickness of the flood water  
6 sheet flow going outside of that.

7           We thought 4 was, you know, too limiting with  
8 that four feet. I think that the hydrologic study needs  
9 to be done to really determine that. I think with the  
10 final report that gets done, we'll either stay with that  
11 or go to something else. So I'm recommending not to  
12 include 4.

13           5 is fine as it is. Post-development runoff  
14 shall be equal to less than the pre-development runoff.  
15 That's what we were saying earlier. What you folks were  
16 discussing earlier was that like low-impact design, you  
17 have water coming on the site, going off the site, even  
18 without the project -- well, with the project, the same  
19 volume coming off the site -- it would be the same volume  
20 coming off the site with or without the project. That's  
21 the intent of that one.

22           Project number 6, the project and reports  
23 prepared for the project shall comply with the  
24 requirements of San Bernardino County drainage manual,  
25 including requirements for the retention basins for the

1 main service complex. That's fine.

2           Number 7, the project shall not significantly  
3 alter sediment transport through the project site. That's  
4 kind of the same as 5, so we're suggesting maybe to  
5 combine those two; it's basically the same -- I think the  
6 same comment. That's the way I interpret it.

7           STAFF COUNSEL ADAMS: To clarify, do you  
8 recommend something in place of 4, which is the four-foot  
9 scour depth or the -- that that not be included at all?

10           MR. WEAVER: Again, I would -- I think that the  
11 final hydraulic study will come to a conclusion and a  
12 recommendation for that particular performance standard.  
13 I don't know that just taking four feet is any magical  
14 number, you know. I'd like to see it based on soil types,  
15 velocities, depth, whatever the design is, and why and  
16 how.

17           STAFF COUNSEL ADAMS: And finally, I don't know  
18 if this was a subject of discussion testimony at an  
19 earlier hearing or not, but are you comfortable with  
20 the -- you heard the discussion earlier about submitting  
21 study results for comment to BNSF, and I believe to allow  
22 BNSF to have a role in selecting the party performing the  
23 study. Is staff agreeable to those --

24           MR. WEAVER: Yes.

25           STAFF COUNSEL ADAMS: -- provisions?

1           One moment, please.

2           Thank you. That's all for our questions of staff  
3 witnesses. He's available to other parties.

4           HEARING OFFICER KRAMER: Applicant?

5           MS. FOLEY GANNON: Couple of questions.

6                           CROSS-EXAMINATION

7           MS. FOLEY GANNON: Thank you.

8           Couple of questions on your comments or proposed  
9 changes to the performance standards.

10           I think in 1 you were just suggesting taking out  
11 the "boundaries" and saying "watershed," "drainage  
12 watersheds." And I think the applicant would agree with  
13 that for the reasons you stated.

14           For number 4, how would you see that performance  
15 standards coming out of the hydrologic study? What would  
16 you be looking for to set the depth of scour that would be  
17 acceptable?

18           MR. WEAVER: The flow velocities, the volumes  
19 that would be shown, their erosivity, you know,  
20 how -- what the conditions are that would cause scour.

21           MS. FOLEY GANNON: Right. I think that the  
22 intent of this performance standard was to say, you know,  
23 if you get a scour beyond this level, we could see it  
24 having an adverse impact. And so this is a -- sort of a  
25 numeric line that could be drawn. And I believe you

1 reviewed the Chang report?

2 MR. WEAVER: Uh-huh.

3 MS. FOLEY GANNON: And I believe that that was  
4 based upon Chang's recommendations.

5 Do you think this is an appropriate --

6 MR. WEAVER: Well, there's two things. You know,  
7 what are the materials underneath or did you hit a rock,  
8 what's your embedment depth? You know, it's almost like  
9 there should be some relationship to the amount of the  
10 post that's stuck in the ground rather than just the  
11 physical depth from the surface.

12 You know, if it's -- I don't know, a third a  
13 fifth, whatever the number is, it would be an engineering  
14 call, you know, of how much erosion you could have before  
15 it could start turning over.

16 MS. FOLEY GANNON: So it would be your view that  
17 this standard isn't necessary to assure that there's going  
18 to be no adverse impacts --

19 MR. WEAVER: You could write it --

20 MS. FOLEY GANNON: -- independently.

21 MR. WEAVER: You could write it in a -- well, the  
22 four feet. It's just an arbitrary number. I mean, it  
23 kind of holds you to a particular thing. If it was a  
24 ratio of the embedment depth, I think that would be more  
25 valuable.

1 MS. FOLEY GANNON: Ratio of the embedment depth.  
2 Okay. That's a good idea.

3 Okay. And then reading 5 and 7, you think that  
4 they're going towards the same thing?

5 MR. WEAVER: Yes.

6 MS. FOLEY GANNON: Because 5 is talking about --  
7 and I think you were talking about like the normal like  
8 LID, Low Impact Development standard matching pre and post  
9 velocities and not having hydromodification essentially  
10 from a project. I think that's what 5 was going for. Is  
11 that the way you read it?

12 MR. WEAVER: Yes. That's the runoff, that would  
13 be the water; and then 7 is the sediment. So they're kind  
14 of --

15 MS. FOLEY GANNON: And I think when you read  
16 this, sediment transport through the project site, so I  
17 think that was somewhat looking at the issue that was  
18 raised earlier.

19 MR. WEAVER: And combined I think it would be --

20 MS. FOLEY GANNON: Combined as one condition,  
21 both those --

22 MR. WEAVER: Yeah, I think you could say, you  
23 know, the runoff and sediment pass through, you know,  
24 shall remain the same pre and post.

25 MS. FOLEY GANNON: Okay. That makes sense.

1           So with those conditions, would you think that  
2 you can make a determination about whether the project  
3 would have a significant impact if these conditions were  
4 satisfied?

5           MR. WEAVER: If the conditions in Soil and  
6 Water 8 and the rest of conditions that are in the soil  
7 and water section are complied with, I think it could.

8           MS. FOLEY GANNON: And in your experience working  
9 with other projects, have you worked with projects where  
10 there's a preliminary drainage report done and then  
11 there's designs done and then followed by a final  
12 hydrologic report; is that something you've seen done in  
13 other projects?

14          MR. WEAVER: Yes.

15          MS. FOLEY GANNON: Is that unusual?

16          MR. WEAVER: It's all unusual for me. These are  
17 fast-track giant projects. So it's unusual.

18          MS. FOLEY GANNON: But I mean even in a typical  
19 design of a project, what would be the first step. You do  
20 a preliminary?

21          MR. WEAVER: Preliminary, sure, a discussion, you  
22 develop some kind of a work plan that you'd get whatever  
23 regulatory buy-in with it, and then you'd continue to the  
24 development.

25          MS. FOLEY GANNON: Then you do design.

1 MR. WEAVER: That's how I've done it, yeah.

2 MS. FOLEY GANNON: And then you would do a final  
3 hydrologic report to confirm the design; is that correct?

4 MR. WEAVER: The --

5 MS. FOLEY GANNON: So you would do a preliminary  
6 design -- I mean a preliminary hydrologic report --

7 MR. WEAVER: Right.

8 MS. FOLEY GANNON: -- you design whatever  
9 features you're talking about --

10 MR. WEAVER: Based on that information.

11 MS. FOLEY GANNON: And then you would do a final  
12 hydrologic report to confirm?

13 MR. WEAVER: Not always. You wouldn't always do  
14 a final. You know, if did really -- if you did one  
15 sufficient to base -- you know, to develop your design --

16 MS. FOLEY GANNON: It may not be necessary --

17 MR. WEAVER: -- you wouldn't need the follow up  
18 final.

19 MS. FOLEY GANNON: -- in every case.

20 No further questions. Thank you.

21 HEARING OFFICER KRAMER: Ms. Gannon, I think you  
22 asked Mr. Weaver if he could form an opinion about whether  
23 there would be significant impacts or not. And did I hear  
24 him correctly say that he could form an opinion, but he  
25 never offered what the opinion would be?



1 MS. FOLEY GANNON: I thought -- okay. I thought  
2 he did, I heard it in my head.

3 MR. WEAVER: Yeah, I said as long as it is -- the  
4 project was constructed in conformance with the conditions  
5 in the soil and water section of the -- it will end up  
6 being the PMPD, it should be suitable for construction in  
7 my opinion.

8 MS. FOLEY GANNON: So less than significant?

9 MR. WEAVER: Yes, less than significant.

10 HEARING OFFICER KRAMER: Okay, yeah, we were  
11 going for the language of CEQA.

12 MS. FOLEY GANNON: Exactly.

13 HEARING OFFICER KRAMER: Thank you.

14 MS. FOLEY GANNON: Thank you.

15 HEARING OFFICER KRAMER: Any intervenor  
16 questions?

17 Mr. Ritchie?

18 CROSS-EXAMINATION

19 MR. RITCHIE: Hi, Mr. Weaver. Travis Ritchie  
20 with Sierra Club.

21 I had couple questions starting with a statement  
22 I believe in the staff addendum, whatever we're calling  
23 it. You stated that the applicant had not submitted the  
24 comprehensive detail that staff needs to analyze the  
25 ability of any necessary drainage basins to retain maximum

1 flows and protect the project from flooding; that's  
2 correct?

3 MR. WEAVER: That's correct.

4 MR. RITCHIE: And so we've discussed a final  
5 drainage report, and those would be the type of things  
6 that are lacking at this point in time that you would be  
7 looking for to resolve that issue, correct?

8 MR. WEAVER: Well, the drainage report would give  
9 you the criteria from which to base a design for flood  
10 control.

11 MR. RITCHIE: Okay. And based on the information  
12 that you could obtain from that drainage report, would you  
13 consider recommending any updates or modification to the  
14 performance standards and criteria in Soil and Water 8?

15 MR. WEAVER: You know, how do you answer that? I  
16 have to see it.

17 MR. RITCHIE: I believe you said -- when you  
18 started out you said that some of performance standards  
19 would be altered by the results of the drainage plan and  
20 that Soil and Water 8, the standards as they are now don't  
21 adequately address some of those issues.

22 MR. WEAVER: Okay. That would be -- that would  
23 go back to the design, the design which currently is no  
24 flood protection, because Dr. Chang believes that it's  
25 just sheet flow, that there's no issue. I believe that

1 once you go through a full hydrologic evaluation, there  
2 will be a change in design.

3 MR. RITCHIE: But at this point we simply don't  
4 know what that final design would be because of the  
5 information that we're still missing on the drainage  
6 report, correct? In other words, in order to verify  
7 Dr. Chang's assessment.

8 MR. WEAVER: The drainage report would  
9 likely -- well, I don't know. I don't know. I don't what  
10 the answer -- what the final drainage plan will be.

11 MR. RITCHIE: Is it fair to say then that you  
12 don't know what the final design plan would be?

13 MR. WEAVER: Both, correct.

14 MR. RITCHIE: Is it also fair to say then that  
15 you're not -- that you don't know what the final  
16 performance standards and criteria should be at this  
17 point?

18 MR. WEAVER: I believe that Soil and Water 8 will  
19 handle most any -- soil and Water 8 will handle the  
20 development of the project in accordance with flood  
21 issues, flood and drainage issues.

22 MR. RITCHIE: But in -- to be clear though, as it  
23 stands right now, we would have to modify number 4 in your  
24 opinion, in that the four-foot -- I believe you said the  
25 four-foot scour depth was arbitrary.

1           MR. WEAVER: Oh, I'm sorry. I'm talking about  
2 the addendum, not the item 114. Not -- what do you call  
3 it, the conformance -- Exhibit 114. You're looking at  
4 Exhibit 114.

5           MR. RITCHIE: Right, the applicant's proposed  
6 Soil and Water 8.

7           MR. WEAVER: Right. I thought we were talking  
8 about the SSAA.

9           MR. RITCHIE: Well, I'm equally confused on what  
10 we're talking about, because I actually have --

11           MR. WEAVER: There's two documents.

12           MR. RITCHIE: -- no idea right now what the  
13 proposed Soil and Water 8 is that would go into the final  
14 plan. And if -- I don't really know that anybody has any  
15 idea what the final Soil and Water 8 would be at this  
16 point.

17           MR. WEAVER: I think I can clarify, unless you  
18 want to.

19           MS. FOLEY GANNON: You can go ahead.

20           MR. WEAVER: The applicant has stipulated that  
21 they're all right with Soil and Water 8 that's in the  
22 SSAA, the Supplemental Staff Assessment Addendum.

23           MR. RITCHIE: Yes.

24           MR. WEAVER: And we're offering some of these  
25 other performance standards to be incorporated within.

1 MR. RITCHIE: Okay.

2 MR. WEAVER: The performance standards in  
3 Exhibit 114.

4 MR. RITCHIE: Right. And that's what we just  
5 discussed, you and Ms. Foley Gannon discussed.

6 MR. WEAVER: Yes.

7 MR. RITCHIE: But at this point, that  
8 incorporation hasn't -- so the document, the Staff  
9 Assessment document we have right now is not a final  
10 version of what's Soil and Water 8 will be once you  
11 incorporate these other issues that the staff has  
12 proposed; is that correct?

13 MR. WEAVER: That's correct. There will be  
14 additional information.

15 MR. RITCHIE: And all that information is  
16 necessary to gather -- to inform your decision that  
17 there's no significant impact on the project.

18 MR. WEAVER: It specifies performance standards  
19 that don't detract from Soil and Water 8 and may provide  
20 additional clarification.

21 MR. RITCHIE: So I guess going back to the  
22 question, are -- is the incorporation in the final  
23 document necessary for your conclusion that it would be  
24 less than significant impacts from this project?

25 MR. WEAVER: No.

1 MR. RITCHIE: So the Staff Addendum as it stands  
2 right now --

3 MR. WEAVER: From my opinion.

4 MR. RITCHIE: In your opinion.

5 And so you're not recommending any changes to the  
6 Staff Addendum suggested Soil and Water 8 based off  
7 anything that might be found in the drainage report.

8 MR. WEAVER: Yes, that's correct.

9 MR. RITCHIE: Are you familiar with the Ivanpah  
10 project that also went through?

11 MR. WEAVER: Not that much. A little bit. I  
12 know there was -- yeah, I know there's drainage issues  
13 there as well, alluvial fan.

14 MR. RITCHIE: If I could, may I show the witness  
15 an exhibit that Sierra Club docketed last night?

16 HEARING OFFICER KRAMER: 1021?

17 MR. RITCHIE: I believe so, yeah.

18 HEARING OFFICER KRAMER: Can you describe it?

19 MR. RITCHIE: I can. I'll bring a copy up as  
20 well for the Commission.

21 So this is Sierra Club's Exhibit Number 1021.  
22 It's a letter from BLM to the project manager for  
23 BrightSource Energy, which was the applicant in the  
24 Ivanpah proceeding. And it explains in detail some of the  
25 issues that BLM and also refers to issues that CEC looked

1 at with respect to a stormwater plan in the Ivanpah  
2 proceeding and discusses such things as, you know, work  
3 plans for hydrology and hydraulics, infiltration memos,  
4 technical memos.

5 I know you haven't seen this letter before today,  
6 but was there a subsequent or a similar request from CEC  
7 staff in this proceeding to -- for applicant to prepare a  
8 drainage plan before this point in time?

9 HEARING OFFICER KRAMER: Before you -- just for  
10 the record, this letter is dated April 8, 2008. And the  
11 Exhibit Number, again, was 1021?

12 MR. RITCHIE: 1021.

13 HEARING OFFICER KRAMER: 1021.

14 MR. WEAVER: I really -- you know, and this is  
15 the first I've seen it so I don't know anything about  
16 that, but I do know I can offer up a little information is  
17 what I've discussed with my co-staff, was that there were  
18 four iterations of the drainage development for Ivanpah.  
19 So there was a lot of this back and forth of revising the  
20 final drainage plan.

21 MR. RITCHIE: Do you have any concept of what  
22 those four iterations were?

23 MR. WEAVER: No, I don't, it was just in passing.

24 MR. RITCHIE: And characterizing the two, have  
25 you -- has there been more than one iteration of a

1 drainage plan in this context in Calico? I mean, the only  
2 thing I'm aware of is the Huitt-Zollars --

3 MR. WEAVER: Well, yeah, the Huitt-Zollars, the  
4 West, Windsor & Kelly review for BLM, the DESC. Those  
5 are the ones that I can think of off the top of my head.

6 MR. RITCHIE: So you have no opinion on whether  
7 the drainage plan that was required by the staff in the  
8 Ivanpah proceeding was more rigorous or less rigorous or  
9 more final or less final than the drainage plan that's  
10 being required at this point in time for the Calico  
11 proceeding?

12 MR. WEAVER: I really don't.

13 MR. RITCHIE: Would it surprise you if the -- in  
14 reviewing this document and seeing what was required, if  
15 the drainage plan in Ivanpah was much more extensive and  
16 rigorous than the stormwater drainage plan that's being  
17 required here?

18 MR. WEAVER: The final drainage plan hasn't been  
19 submitted, so I expect that this -- you know, the final  
20 will be much more rigorous than what's been provided.

21 MR. RITCHIE: So would the timing of that final  
22 report be surprising to you and that staff in the Ivanpah  
23 proceeding seemed quite concerned about seeing that final  
24 report before the PMPD, before making its recommendations  
25 on Conditions of Certification. I think for many of the



1 reasons that you stated, in that many of these project  
2 design-level decisions cannot be made at this point.

3           And I'm just wondering, in your opinion, why  
4 staff in this case didn't seem to follow a similar  
5 rigorous review of the drainage plan, because it's not  
6 there yet.

7           MS. FOLEY GANNON: Hearing Officer Kramer, it  
8 appears that the witness has said that he's not familiar  
9 personally with the process in Ivanpah and the drainage --  
10 development of the drainage study, so just wondering if  
11 there's much point in carrying this conversation on much  
12 further since he's said he has not personally -- he has no  
13 personal knowledge of that.

14           I mean, I think you can ask him about what he's  
15 requiring in this case and his conclusions, but --

16           MR. RITCHIE: I'll rephrase to stick to this  
17 case.

18           In this proceeding -- I believe we covered that  
19 earlier. It's fair to say, in your opinion, that  
20 there's -- there is not a final drainage plan that would  
21 inform final project designs in this project, correct?

22           MR. WEAVER: That's correct.

23           MR. RITCHIE: Okay. No further questions.

24           HEARING OFFICER KRAMER: Any other intervenors?

25           ///

## 1 CROSS-EXAMINATION

2 MR. LAMB: Steve Lamb for BNSF.

3 Good evening, Mr. Weaver. How are you?

4 MR. WEAVER: Fine, thank you

5 MR. LAMB: Let me make sure that I understand  
6 what's going on here.7 If I understand you correctly, Soil and Water 8,  
8 as you envision it, finally is going to be essentially a  
9 compendium or a combination of what the standards as you  
10 believe should be revised that the applicant submitted,  
11 coupled with the Soil and Water 8 that's part of the most  
12 recent SSA that was submitted, coupled with including the  
13 request that BNSF be afforded the opportunity to select  
14 the party that's going to do the study and to receive the  
15 periodic 30, 60, 90-day review documents. Is that  
16 generally accurate?

17 MR. WEAVER: Generally accurate. Sure.

18 MR. LAMB: Okay. And that final document, we  
19 don't have a draft of that right now, right?20 MR. WEAVER: We were just going through the  
21 negotiation of the points.22 MR. LAMB: Okay. Now, when you reviewed the  
23 report that was submitted by the applicant from Dr. Chang,  
24 you found it to be insufficient, correct?

25 MR. WEAVER: That's true.

1 MR. LAMB: And you believed that then, right?

2 MR. WEAVER: Excuse me?

3 MR. LAMB: You believed that then, correct?

4 MR. WEAVER: Then?

5 MR. LAMB: Then, when you wrote it, right?

6 MR. WEAVER: I didn't write Chang's report.

7 MR. LAMB: No, no, no.

8 When you wrote the SSA.

9 MR. WEAVER: Okay.

10 MR. LAMB: The portion of the SSA attributed to  
11 you.

12 MR. WEAVER: Uh-huh.

13 MR. LAMB: Is that correct?

14 MR. WEAVER: Yeah, the SSA or the SSAA?

15 MR. LAMB: You know, it's the SSAA, and there may  
16 be another "A" in there. The one that was submitted  
17 Friday.

18 MR. WEAVER: Okay. There's a lot of documents.

19 MR. LAMB: You know what, sir, there certainly  
20 are.

21 The Supplemental Staff Assessment that was  
22 submitted last Friday.

23 You believed that then?

24 MR. WEAVER: The addendum for the reduced  
25 acreage.

1 MR. LAMB: Yes, sir.

2 MR. WEAVER: Right, gotcha.

3 MR. LAMB: And you still believe it today, right?

4 MR. WEAVER: Believe what I wrote?

5 MR. LAMB: That his -- you still believe that  
6 Dr. Chang's report and analysis is insufficient.

7 MR. WEAVER: Yes.

8 MR. LAMB: Okay. Now, in your earlier testimony  
9 when you referred to "sheet flow," it seemed to me you  
10 were not impressed with that concept by Dr. Chang. Would  
11 that be accurate?

12 MR. WEAVER: Yes.

13 MR. LAMB: You think it's something other than  
14 sheet flow.

15 MR. WEAVER: I think sheet flow exists. In his  
16 description, the sheet flow begins once the creeks flood.

17 MR. LAMB: But you believe that when a  
18 comprehensive hydraulic study is done, that something else  
19 will come up, right?

20 MR. WEAVER: Yes --

21 MR. LAMB: Okay.

22 MR. WEAVER: -- in addition. I mean, they'll  
23 come up with sheet flow and drainage flow as well.

24 MR. LAMB: Okay. If you have in front of you  
25 what the applicant submitted, we were just looking at it

1 in terms of the standards for Soil and Water 8, but I want  
2 to look at Bio 26 real quick. It's on page 33. So you  
3 were at about page 40 earlier. If you could just go to  
4 page 33.

5 HEARING OFFICER KRAMER: This is the applicant's  
6 114?

7 MR. LAMB: This is applicant's 114, yes, correct.

8 It's part of Bio 26. If you go forward a couple  
9 pages, it's part of Bio 26, what would be page 31, it's  
10 not marked, just so can you get a frame of reference.

11 MR. WEAVER: Yeah, I see it.

12 MS. FOLEY GANNON: Excuse me. Are you talking  
13 about Attachment C to Exhibit 114? Is that where you are?  
14 I'm just trying to follow you.

15 MR. LAMB: Am I where?

16 MS. FOLEY GANNON: I'm trying to find where you  
17 are. You said you're in -- are you into the attachments  
18 to --

19 MR. LAMB: Okay. He was just -- when you were  
20 just going through all your questioning, he was on page 40  
21 of the same document at Soil and Water 8.

22 MS. FOLEY GANNON: Well, we were looking at  
23 Attachment E for Soils and Water. That's what we were  
24 looking at. So I'm trying to see, are you now in  
25 Attachment C? Attachment B? I'm sorry, it's D, and it's

1 page --

2 HEARING OFFICER KRAMER: D as in "dog"?

3 PROJECT MANAGER MEYER: D as in "dog."

4 HEARING OFFICER KRAMER: Okay. That was  
5 Condition Bio 26.

6 MR. LAMB: No, it's the same attachment.

7 MR. WEAVER: Yeah, but it's Attachment D.

8 HEARING OFFICER KRAMER: Somehow I found it.

9 MS. FOLEY GANNON: We were look at it separately  
10 under Attachment E. I'm sorry.

11 MR. LAMB: I mean, it's just five pages ahead of  
12 what you were questioning him on.

13 MS. FOLEY GANNON: I was just looking at in a  
14 different place, so it wasn't -- there wasn't anything  
15 that was five pages ahead. That was the problem, I  
16 couldn't find it.

17 MR. LAMB: Okay. All right.

18 And this is reference to Bio 26, best management  
19 practices. If you look at 2E, it says the project owner  
20 shall minimize road-building construction activities and  
21 vegetation clearing within ephemeral drainages to the  
22 extent feasible.

23 Do you see that?

24 MR. WEAVER: Yes.

25 MR. LAMB: How does the applicant do that if they

1 employ a grid methodology of emplacing SunCatchers?

2 MR. WEAVER: You'd have to talk to the biologist  
3 about that.

4 MR. LAMB: Well, don't you think that this  
5 condition of certification should mesh with and comport  
6 with and be consistent with conditions that are in soil  
7 and water?

8 MR. WEAVER: Maybe. Yeah, it could fit.

9 MR. LAMB: Well, it should fit, right?

10 MR. WEAVER: There are similarities, yeah.

11 MR. LAMB: Well, I mean you wouldn't want to have  
12 a condition of certification in soil and water that  
13 required something that couldn't be done --

14 MR. WEAVER: Correct.

15 MR. LAMB: -- and was inconsistent with bio,  
16 right?

17 MR. WEAVER: Right.

18 MR. LAMB: All right. So you just -- since you  
19 didn't draft this, you have no idea how they're going to  
20 do it.

21 MR. WEAVER: I could guess, but, yeah, I don't  
22 know what they were thinking.

23 MR. LAMB: Well, there are ephemeral drainages  
24 all throughout the site, right?

25 MR. WEAVER: Right.

1 MR. LAMB: So if you're going to avoid ephemeral  
2 drainages, you're really not going to be able to use a  
3 specific grid format, are you?

4 MS. FOLEY GANNON: Are you looking at 2E where it  
5 says "minimize"? Is that what you're saying, where they  
6 say "minimize those conditions," 2E under 26; is that  
7 right?

8 MR. LAMB: It says the project owner shall  
9 minimize road building construction activities and  
10 vegetation clearing within ephemeral drainages to the  
11 extent feasible.

12 MS. FOLEY GANNON: Okay. Thank you.

13 MR. WEAVER: You know, I didn't write them, but  
14 it makes sense to me.

15 MR. LAMB: You just don't know how it's going to  
16 happen, right?

17 MR. WEAVER: How they minimize it?

18 MR. LAMB: Right.

19 MR. WEAVER: You know, construction techniques.  
20 They'd go out with a -- some equipment to, you know, grade  
21 the road, minimize the slope coming in and out. There's  
22 construction methods that are available.

23 MR. LAMB: Well, okay. If you don't know the  
24 answer to this, you don't know. But I'm just trying --  
25 this is supposedly a standard of what they're going to do.



1 I mean, how are you going to measure that? I mean, for  
2 example, if there's shrubbery in a wash basin, and they  
3 decide to put a SunCatcher there, what does minimize mean?  
4 I mean, how do you -- do you just at the end of the day  
5 say, well, we minimized it? I mean, how do you -- how  
6 does this work? How do you actually figure out whether  
7 they're doing this?

8 STAFF COUNSEL ADAMS: Could I suggest that since  
9 we'll have biological expert witnesses on later, that this  
10 might be more appropriate for them since it's a biology  
11 condition? You're asking someone who had nothing to do  
12 with this condition.

13 MR. LAMB: Sir, I completely -- well, Soil and  
14 Water 8 Number 1 says, project construction shall not  
15 alter the existing drainage watershed boundaries. So  
16 how -- how does that fit with 2E and Bio 26 and how are  
17 they going the make that work?

18 MS. BURCH: What's the right standard here? Is  
19 it the one that we're drawing your attention to, or is it  
20 this? It goes to what Travis is saying. There are all  
21 kinds of issues here.

22 They proposed five or six broad generalizations  
23 of standards here, but there are decisions being made out  
24 in the field regularly when this starts -- when things  
25 start moving. And we're trying to understand really

1 what's intended here, in good faith trying to understand.

2 We were told at the last workshop to give  
3 comments on any condition that we thought was relevant to  
4 this issue. So we spent the weekend looking at all the  
5 conditions. We have a few. And this is one of them.

6 MR. WEAVER: Well, I can offer some construction  
7 methods up. I don't know, you know, how they're going to  
8 do it, but can you use track vehicles, you can minimize  
9 your impact through your construction activities, the way  
10 that you carry on your business.

11 MS. BURCH: Would you agree that project  
12 construction shall not alter the existing drainage  
13 watershed doesn't really tell us anything?

14 HEARING OFFICER KRAMER: The Committee is  
15 certainly willing to entertain a panel that is  
16 multidisciplinary here, and if it -- nobody objects,  
17 perhaps even if you do, for less than compelling reasons,  
18 we'd be perfectly happy to have a biological witness join  
19 Mr. Casey -- or Mr. Weaver to help sort this out.

20 Whereupon,

21 CHRIS HUNTLEY  
22 having been previously sworn, testified as follows:

23 MR. HUNTLEY: This is Chris Huntley, biological  
24 resource staff. I might be able to shed a little bit of  
25 light on Condition E.

1 MR. LAMB: Good to see you, Mr. Huntley.

2 MR. HUNTLEY: How are you, sir?

3 MR. LAMB: Good.

4 MR. HUNTLEY: The project owner shall minimize  
5 road building construction activities and vegetation  
6 clearing within ephemeral drainages to the extent  
7 feasible. "Extent feasible" would not normally be in our  
8 conditions. The applicant is going to be required to  
9 mitigate for all of the ephemeral drainages that are  
10 identified on the project site, which was the acreage in  
11 front of me was 282 acres for the proposed project. For  
12 scenario 5, it's substantially lower. I think it's 155,  
13 so on and so forth.

14 So we've considered impacts to the drainages on  
15 the project site to be functionally destroyed, but we  
16 asked them whenever possible to minimize any further  
17 impacts to the drainages on the site. This was also  
18 because the Energy Commission is issuing in effect the  
19 1600 permit. And that is standard -- the 1600 permit  
20 streambed alteration agreement from the Fish and Game.  
21 That language is standard language within streambed  
22 alteration agreement permits is to minimize the impacts  
23 whenever you can. So that's why we put that language in  
24 there. I don't know if that was helpful or not.

25 MR. WEAVER: That's why I couldn't answer.

1 MS. BURCH: But, Mr. Huntley, you're saying that  
2 the bottom line here is that they're going to destroy all  
3 the plant life in this area, denuded if you will.

4 MR. HUNTLEY: It's not going to be fully denuded.  
5 But staff considered the impacts to the drainages on site  
6 to have lost most of their biological function because of  
7 construction maintenance, et cetera --

8 MS. BURCH: But that's not consistent --

9 MR. HUNTLEY: -- so that's why they're mitigating  
10 for all drainages on site.

11 MS. BURCH: That's what we thought was happening  
12 here, but that's not mother nature. You're not left with  
13 mother nature drainage out there, at least in my  
14 experience.

15 MR. HUNTLEY: Staff considers the impacts to  
16 those drainages to be total.

17 MS. BURCH: Thank you.

18 MR. LAMB: Mr. Weaver, did you have an  
19 opportunity to review the testimony of Steven Metro that  
20 was submitted on Friday?

21 MR. WEAVER: No, I haven't seen that.

22 MR. LAMB: Okay. You're familiar with the  
23 history of this particular project, this site in relation  
24 to detention basins, right?

25 MR. WEAVER: Yes.

1 MR. LAMB: And you would agree that relatively  
2 early on the plan was to have debris basins on the north,  
3 right?

4 MR. WEAVER: Yes.

5 MR. LAMB: Then detention basins throughout the  
6 site?

7 MR. WEAVER: Yes.

8 MR. LAMB: In April 2009, in response to numerous  
9 data adequacy requests, applicant represented that from a  
10 surface water perspective, the project will create new  
11 impervious surfaces that will have the potential to create  
12 additional runoff and subsequent erosion and  
13 sedimentation.

14 Do you agree with that statement?

15 MR. WEAVER: Yes.

16 MR. LAMB: You agree that that's still true  
17 today, right?

18 MR. WEAVER: Yes.

19 MR. LAMB: So would it be correct then that you  
20 disagree with Dr. Chang's view that this impervious nature  
21 of the pedestals is not significant?

22 MR. WEAVER: I don't quite know how to answer  
23 that one. Of course, the pedestals are impervious;  
24 they're steel.

25 MR. LAMB: Well, I believe that he testified that

1 it's going to be -- it does matter. It will be like  
2 mother nature, despite what we just heard from Mr.  
3 Huntley, that it will be basically denuded of vegetation,  
4 Dr. Chang believes that emplacing 24,000 SunCatchers will  
5 leave it just like mother nature. You would disagree with  
6 that, right?

7 MR. WEAVER: Let me see if I'm getting what your  
8 question is.

9 You're going to put all these poles in -- or all  
10 these poles are going to be in the drainage and they're  
11 going to affect the way water flows down the channel. Is  
12 that what your asking?

13 MR. LAMB: Well, they will affect how water flows  
14 down the channel, right?

15 MR. WEAVER: I don't know if that's what you're  
16 asking or not. Is that what you're asking?

17 MR. LAMB: Yeah.

18 MR. WEAVER: Yeah.

19 MR. LAMB: It will, right?

20 MR. WEAVER: It has to.

21 MR. LAMB: It has to, right?

22 So you would disagree with Dr. Chang about that,  
23 right?

24 MR. WEAVER: At that particular point.

25 MR. LAMB: Now, in March 30th of this year, the

1 CEC and BLM issued the Staff Assessment Draft  
2 Environmental Impact Statement. And you were involved in  
3 that, right?

4 MR. WEAVER: I -- yes, uh-huh.

5 MR. LAMB: And that Staff Assessment DEIS noted  
6 that the debris basins were located in the northernmost  
7 border of the project site and if the site footprint was  
8 reduced under the reduced acreage alternative, as  
9 obviously it was here, the, quote, flood intercept debris  
10 collection and flow detention basins would need to be  
11 similarly designed and constructed downstream from the  
12 southern boundary of the lands no longer included in the  
13 project site as a result of the reduced acreage  
14 alternative.

15 Do you remember that?

16 MR. WEAVER: Yes, I do.

17 MR. LAMB: And then the Staff Assessment went on  
18 to say that assuming that that was done, there would be no  
19 change in the CEQA level of significance impact, right?

20 MR. WEAVER: That's correct.

21 MR. LAMB: And you believed that then, right?

22 MR. WEAVER: Yes.

23 MR. LAMB: And what's being proposed now is their  
24 elimination.

25 MR. WEAVER: That's correct.

1 MR. LAMB: Okay. And what was being discussed  
2 then and what the staff was requiring then was if there  
3 was a reduction in footprint, that essentially the debris  
4 basin would follow down south, right?

5 MR. WEAVER: Yes. They'd be relocated to the  
6 northern property boundary.

7 MR. LAMB: And there's been nothing that you've  
8 scene that's been submitted by applicant, whether it's  
9 from Dr. Chang or anyone, that would change your opinion  
10 of that, correct?

11 MR. WEAVER: Of the relocation of the debris  
12 basins?

13 MR. LAMB: Correct.

14 MR. WEAVER: There was no design for debris  
15 basins in the reduced alternative, in this reduced  
16 alternative.

17 MR. LAMB: Right.

18 MR. WEAVER: The SSA looked at a different reduce  
19 alternative. This is different from that.

20 HEARING OFFICER KRAMER: Folks, for the WebEx  
21 recording, you need to get a little closer to microphones.  
22 I think people on the phone are hearing okay, but we have  
23 a backup WebEx recording if we need it, so if we get a  
24 little closer, it will help.

25 MR. LAMB: Okay. So with the original footprint,



1 if it was going to be reduced, the detention basins, the  
2 debris basins would shift south, right?

3 MR. WEAVER: They would presumably follow the  
4 drainages. I mean, it wouldn't necessarily just be a  
5 linear straight perpendicular to the northern boundary, it  
6 would have to shift to the drainage to intercept the  
7 drainages.

8 MR. LAMB: And you've already said that what  
9 Dr. Chang submitted was insufficient. So would you agree  
10 that you haven't seen anything submitted by applicant that  
11 would justify what the staff originally said was a  
12 requirement to meet CEQA level of significance impact,  
13 namely that the detention and debris basins would shift  
14 south and reduce footprint scenario?

15 STAFF COUNSEL ADAMS: I mean, staff's analyses in  
16 each of these cases has responded to the applicant's  
17 project proposal.

18 MR. LAMB: I would appreciate that. And I would  
19 really appreciate an answer to this question, because it  
20 has huge CEQA implications, as you're aware, Mr. Adams.

21 STAFF COUNSEL ADAMS: Well, maybe you could  
22 repeat the question, because it seems to me you're asking  
23 staff to account for decisions that the applicant has made  
24 or not made in various proposals submitted.

25 MR. LAMB: I am not. The staff submitted a

1 document the SA DEIS. That document said that if there is  
2 a reduction in the footprint of the site, that the debris  
3 and detention basins would shift south and would be  
4 reimplemented; and if that occurred, there would be no  
5 CEQA level of significance impact.

6 Isn't that correct, Mr. Weaver?

7 MR. WEAVER: That could be a portion of it with  
8 additional information. I mean, it's not just the debris  
9 basins, there's more to it than that.

10 MR. LAMB: Sure. But it certainly would require  
11 the debris basins to shift south, right?

12 MR. WEAVER: Yes.

13 STAFF COUNSEL ADAMS: Could you please give us  
14 the citation of that, because your presuming that --

15 MR. LAMB: I'd be happy to. It's in the  
16 executive summary, Page 24 of the SA DEIS. And I'll quote  
17 it again so that we're clear on the record.

18 Quote, Flood intercept debris collection and flow  
19 detention basins would need to be similarly designed and  
20 constructed downstream from the southern boundary.

21 That was what was said then. Right, Mr. Weaver?

22 MR. WEAVER: I believe so.

23 MR. LAMB: And that hasn't happened, correct?

24 MR. WEAVER: As that design hasn't continued with  
25 the current project?

1 MR. LAMB: Correct.

2 MR. WEAVER: That's right.

3 MR. LAMB: And you have found that what Dr. Chang  
4 submitted was insufficient, correct?

5 MR. WEAVER: In my opinion.

6 MR. LAMB: So would you agree that you have seen  
7 nothing from the applicant that would warrant the  
8 elimination of the debris basins?

9 MR. WEAVER: Debris basins are one method of  
10 flood mitigation. It was one that happened to be  
11 presented by the applicant and was continued into their  
12 design. It's not a cure-all; it may not be the design  
13 that they end up with. They may do some other method of  
14 flood control besides debris basins, detention basins,  
15 retention basins, whatever you want to call them, holes in  
16 the ground or dams, channels. There are other methods  
17 besides these debris basins.

18 MR. LAMB: But they have proposed no other  
19 method, sir, nothing. Correct?

20 MR. WEAVER: I'm not going to argue that.

21 MR. LAMB: Okay. And my point is when the SA  
22 DEIS came out, it was put out and said that if there is a  
23 reduced acreage alternative, there must be debris  
24 collection and flow detention basins similarly designed  
25 and constructed downstream.

1 MR. WEAVER: And that was the design at the time.

2 MR. LAMB: And you haven't seen anything that  
3 would change your professional opinion about the validity  
4 of the original design, correct?

5 MR. WEAVER: That's correct.

6 MR. LAMB: Thank you, sir.

7 Now also, in the SA DEIS, there were identified  
8 13 major components of the proposed project. Can you tell  
9 us what a major component is?

10 MR. WEAVER: Can you say that again?

11 MR. LAMB: Sure. Under biological resources  
12 section, the SA DEIS identified 13 major components of the  
13 proposed project.

14 Is that a question for you, Mr. Huntley?

15 MR. HUNTLEY: This is Chris.

16 If you're speaking to biology, maybe we should be  
17 answering that. And I may be misunderstanding your  
18 question, but major components of the project, things like  
19 evaporation ponds, SunCatcher units, originally the  
20 detention basins, the road structures, the facilities  
21 maintenance buildings, things of that nature, I don't have  
22 it in front me, but those are some of the components I  
23 believe you were asking about; is that correct?

24 MR. LAMB: Well, I'll quote it.

25 It's stormwater detention basins, debris basins,

1 and diversion channels. It's at the SA DEIS at C.2-11.

2 MR. HUNTLEY: Okay.

3 MR. LAMB: And you would agree that when you  
4 remove a major component from a project, you're supposed  
5 to recirculate it and go through the process, because  
6 you -- it's a major deviation from the project, right?

7 MR. HUNTLEY: Not if it minimizes or reduces  
8 impacts to resources or doesn't result in additional  
9 impacts to biological resources; but perhaps that's a  
10 question that the CEQA attorney could answer.

11 MR. LAMB: It may come to that.

12 But there's been no evidence to show that there  
13 been a reduction, right?

14 MR. HUNTLEY: If you're asking about biological  
15 resources, the removal of the sediment catchment basins,  
16 detention basins we believe would further minimize impacts  
17 to biological resources on the project site.

18 MR. LAMB: I'm not asking about biological  
19 resources, I'm talking about --

20 MR. HUNTLEY: Respectfully, sir, you were asking  
21 a question on biology. I thought I was giving you an  
22 appropriate answer.

23 MR. LAMB: Okay. So the site is going to be  
24 basically almost denuded, right?

25 MR. HUNTLEY: No, sir, it's not going to be

1 denuded. The reason staff considered impacts to  
2 biological resources on the project site to be compromised  
3 for a number of reasons. I believe as we identified in  
4 our staff analysis, it's a combination of the length and  
5 duration of construction, two, three, four years. It  
6 includes the fencing, which is going to exclude moving of  
7 animals both on the site. It includes the heavy-duty  
8 construction that would take place on the site for a  
9 number of years. It considered the 24-hour maintenance  
10 activities that would take place on the site. It also  
11 considered the noise of the SunCatchers window washing --  
12 mirror washing and other factors. We felt those things  
13 combined would compromise the integrity of the site to the  
14 biological resources that were on it, you know, nesting  
15 birds, small mammals, tortoises, and other things.

16 That's why we said that. We do expect that there  
17 would be clearing of vegetation in some of these  
18 drainages, but because we felt the drainages were  
19 compromised, we asked that the applicant mitigate those at  
20 a one-to-one ratio. But it doesn't necessarily mean that  
21 the site be denuded of vegetation.

22 MR. LAMB: But you don't know whether the removal  
23 of the detention basins is going to ultimately result in  
24 more problems to the remaining vegetation.

25 MR. HUNTLEY: I can't speak to the hydrology, but

1 to the biology on the site, typically when you compromise  
2 a stream channel or a riparian or an ephemeral drainage by  
3 placing a structure up above it, like a detention basin,  
4 something that traps sediment, it typically degrades the  
5 habitat quality downstream and the biological resources  
6 perspective, the removal of those sediment basins will  
7 allow sediment to continually wash through the project  
8 area, and it will not channelize the flows outside of  
9 those visiting drainages.

10           So whatever residual biology is within the site,  
11 we felt it would have some residual value, plus it would  
12 allow sediment to come downstream to replenish soils in  
13 some of the areas occupied by the Whitemargin Beardtongue.  
14 It is possible that sediment coming down could provide  
15 some habitat for the Mojave Fringe-toed Lizards, but we  
16 believe basically that the Fringe-towed Lizards on site  
17 will still be degraded.

18           MR. LAMB: Okay. Are you aware, sir, that  
19 there's detention basins that were originally planned in  
20 front of some of the environmentally sensitive areas to  
21 protect them from being washed out, and now they no longer  
22 exist?

23           MR. HUNTLEY: I'd have to look at the figures,  
24 but I always knew there was going to be a series of  
25 detention basins on the proposed project site.

1 MR. LAMB: And now there aren't going to be any  
2 hub.

3 MR. HUNTLEY: That's our understanding, except  
4 for around the main services complex.

5 MR. LAMB: Okay. And there's certain  
6 environmentally sensitive areas that are denoted with a  
7 circle, right?

8 MR. HUNTLEY: Yes, sir.

9 MR. LAMB: Okay. And how are those going to be  
10 protected?

11 MR. HUNTLEY: I don't believe they're going to be  
12 protected by anything other than distance as a buffer.

13 MR. LAMB: Do you understand that they're putting  
14 SunCatchers right up against those  
15 environmentally-sensitive areas?

16 MR. HUNTLEY: Yes, sir. I can't speak fully for  
17 the botany, but we felt that the 250-foot buffer would  
18 be -- was the best compromise for avoiding impacts to --  
19 or minimizing impacts to plants. But we do know that  
20 they're going to be surrounded and isolated by  
21 SunCatchers.

22 MR. LAMB: And you don't know what's going to  
23 happen?

24 MR. HUNTLEY: I don't think we know what's going  
25 the happen. It would be speculation at this point.



1           MR. LAMB: And, Mr. Weaver, would you agree that  
2 if you put a grid line on a line linearly north to south  
3 of SunCatcher bases, and then every other row has a  
4 roadway that's north to south on a grid, that you would  
5 expect that to channelize the water from going from  
6 northeast to southwest to more north to south?

7           MR. WEAVER: In this particular case, not  
8 necessarily. Because the drainages traverse from the  
9 northeast to the southwest, they'd be tangential to the  
10 northwest -- or to the north-south alignment. So  
11 actually, the water could run down on a north-oriented  
12 roadway and then get picked up by the drainage. There are  
13 methods of collecting and diverting that wouldn't cause it  
14 to go down those roads in your grid pattern.

15           MR. LAMB: What methods of collecting?

16           MR. WEAVER: Well, again, there's the general  
17 grain of the drainages as from the northeast to the  
18 southwest and your -- the grid is in north-south,  
19 east-west alignment. So it couldn't just go down. You  
20 have undulations. So they wouldn't -- it's not going to  
21 go uphill, it's going to divert. It will pick up the  
22 natural drainage and go down the natural drainages.  
23 That's the idea with their design of the Arizona roadways,  
24 Arizona soils I guess they're called, is to allow the  
25 water to pass through those roadways in the natural

1 course, in the natural stream channel, the wash, whatever  
2 you want to call it.

3 There are areas, of course, that are the  
4 interfluves, the areas in between the drainages that would  
5 be hardened with soil tack or whatever it's going to be.  
6 That would, you know, slow down the infiltration or cause  
7 it to run off.

8 MR. LAMB: And that would affect the flow, right?

9 MR. WEAVER: It could affect the flow. But  
10 again, in the conditions that we have, if they comply with  
11 those, it gets handled.

12 MS. BURCH: Could you clarify that then?

13 Number 1 says project construction shall not  
14 alter existing drainage. Do you mean direction, and do  
15 you mean construction and operation?

16 MR. WEAVER: Again, I didn't write that, that was  
17 the applicant's suggested language, and we modified that a  
18 little bit.

19 MS. BURCH: But does it include operation?

20 MR. WEAVER: Yes, it would include operation.

21 MS. BURCH: Because it says, project  
22 construction. I mean, you know, often in the document  
23 using construction to mean the construction phase. Do you  
24 mean the construction phase or do you mean -- because in  
25 later they have some that are in the operation phase.

1 That could be argued not to apply to operation. So I'd  
2 like to know what your proposal to that is.

3 STAFF COUNSEL ADAMS: I think project  
4 construction in this circumstance would mean project  
5 construction. So if your suggestion is to make it also  
6 apply to operation, that would need to be stated.

7 MS. BURCH: Okay. So if the condition would be  
8 project construction and operation shall not alter  
9 existing drainage watershed. I think you ended the  
10 sentence with watershed.

11 MR. WEAVER: Just with watershed, right, not the  
12 boundaries.

13 MS. BURCH: And would that then mean that if  
14 these roads do cause the drainage, if they would in  
15 design, it would be clear that that would change where the  
16 drainage would go, that that would not be allowed.

17 MR. WEAVER: Right. And in our discussion  
18 previously it was really about constructed -- already  
19 built roads, so that would be in the operation phase. It  
20 would be in both. The construction phase obviously is  
21 where you generate the dust and try to keep that down and,  
22 you know, the BMPs that you need for storm drain -- you  
23 know, active construction site.

24 But really what I was talking about with the  
25 orientation of the north-south grid with the

1 northwest-southeast trending or northeast-southwest  
2 trending drainages would apply to operation. It would  
3 apply to both but --

4 PROJECT MANAGER MEYER: Just a brief  
5 clarification. I mean back to what -- the question that  
6 Lorraine White had earlier about the living type documents  
7 that these would be, that would be another one we would  
8 expect the condition would be if, as we talked about  
9 construction and operation, it would be looking at for it  
10 to perform well. And if it under inspection was not  
11 performing, staff would expect it to be rectified, to be  
12 remedied so that it's not just that it was designed,  
13 constructed bad, that we would expect the applicant or the  
14 project owner operator to fix any issues to get it back  
15 into conformance.

16 MS. BURCH: Is that in Soil and Water 8 now?

17 PROJECT MANAGER MEYER: I think that's as  
18 written, as far as, you know, they have to comply with  
19 these -- with the drainage plans. And that document would  
20 be a living document, so it wouldn't be new language, it's  
21 just the way that we would enforce the existing language.

22 (Thereupon a discussion occurred off the record.)

23 MS. SMITH: Hi, Mr. Kramer. This is Gloria  
24 Smith. Can you just tell me let me know what's happening  
25 at the moment? It's not really clear on the phone.

1 HEARING OFFICER KRAMER: Not much.

2 (Laughter.)

3 PROJECT MANAGER MEYER: Staff is looking up a  
4 reference.

5 MS. WHITE: And I'd also like to ask -- this is  
6 Lorraine White. I'd also like to ask that people make  
7 sure that they speak clearly into the microphone for those  
8 us on the phone.

9 HEARING OFFICER KRAMER: You're actually not  
10 super loud yourself, Lorraine, but the Burlington Northern  
11 folks are --

12 MS. BURCH: A little soft.

13 We can come back to this, but that is a concern  
14 that we have, is --

15 MR. WEAVER: It's in Soil and Water 1,  
16 verification C.

17 Once operational, the project owner shall provide  
18 in the annual compliance report information on the results  
19 of stormwater BMP monitoring and maintenance activities.

20 MS. BURCH: That's all that I found. Okay.

21 So if -- have you ever in the first year of after  
22 construction of a project like this with questions like  
23 this thought about more frequent the first year, to  
24 verify -- or after any major event if there was a problem,  
25 have a reporting procedure?

1 MR. HUNTLEY: This is Chris.

2 I'm sorry to cut you off, Casey.

3 We actually have, I believe it's in Condition of  
4 Certification Bio 8, there is an inspection of drainages  
5 and fences after every major storm event to make sure that  
6 best management practices are in place.

7 I'll take a look at the condition to make sure I  
8 can highlight it for you.

9 MS. BURCH: But would it be used usable by BNSF  
10 if the issue is drainage, an impact of drainage on its  
11 right of way?

12 MR. HUNTLEY: That condition is not specifically  
13 for hydrology, so I couldn't necessarily answer that right  
14 now.

15 PROJECT MANAGER MEYER: This is Christopher  
16 Meyer. I can speak just from my experience with  
17 compliance, overseeing, you know, the construction aspect  
18 of these projects.

19 During the construction window, the compliance  
20 project manager will be on site periodically. We'll also  
21 have our chief building official, which is a delegate to  
22 the Energy Commission. They will be looking at BMP  
23 issues, drainage issues. They'll be out constantly during  
24 construction basically making sure that the project is  
25 built per engineering standpoint, but they also are going

1 to act as our eyes and ears in field, how things are  
2 going, but also -- when the compliance project manager  
3 visits the site during construction through the entire  
4 construction phase, which in this project will be the  
5 first, you know, several years, they will be looking at  
6 all of these things. So that for the first several years,  
7 compliance with all of the different conditions, you know,  
8 during construction are going to be observed by Energy  
9 Commission staff on a much higher frequency than during  
10 the operational phase.

11 So there will be a lot of opportunity for our  
12 staff to provide input back to the applicant on things  
13 that are not working correctly. And we will not be  
14 waiting for reports from the applicant to go out and check  
15 to see if things are working or not.

16 MS. BURCH: Thank you.

17 MR. WEAVER: There's another condition here, Soil  
18 and Water 3 also that addresses monitoring and reporting.

19 It says, monitor and inspect periodically before  
20 first seasonal and after every storm event.

21 So it's more than just periodic, it's actually  
22 based on a precipitation event.

23 MS. BURCH: And then you have the ability to  
24 compel a change to make sure that it's fixed if there's a  
25 problem?

1 MR. WEAVER: That's my understanding. We have a  
2 whole compliance group that, you know, looks at the  
3 conformance with these conditions.

4 MR. LAMB: Mr. Weaver, by the time the SA DEIS  
5 was put out, you were pretty clear that there would be  
6 impacts to this BNSF right of way because of the project,  
7 right?

8 MR. WEAVER: No.

9 MR. LAMB: Okay. Now, in C729 it says, quote,  
10 localized channel grading is proposed to take place on a  
11 limited basis to improve channel hydraulics in the  
12 vicinity of BNSF Railway right of way to control the  
13 surface runoff.

14 Are you familiar with that?

15 MR. WEAVER: Vaguely.

16 MR. LAMB: Okay. Well, that would be an impact  
17 to the BNSF right of way, would it not?

18 MR. WEAVER: Positive impact. It would be  
19 removing sediment in that area. That's the way I  
20 interpret what that says.

21 MR. LAMB: Is localized channel grading being  
22 proposed now?

23 MR. WEAVER: I don't know that it's not. I don't  
24 know the answer to that. I don't know that it's not

25 MR. LAMB: You don't know what applicant is doing



1 right now, right?

2 MR. WEAVER: Say that again?

3 MR. LAMB: You really don't know what applicant  
4 is proposing to do.

5 MR. WEAVER: It's an evolution of the project.  
6 We've seen that for a while.

7 MR. LAMB: This is an evolution that pretty much  
8 frustrated you in Barstow, right?

9 MR. WEAVER: I didn't -- I didn't get to go to  
10 Barstow.

11 (Laughter.)

12 MR. WEAVER: You missed that opportunity, that's  
13 right. That would have been here.

14 MR. WEAVER: Right.

15 MR. LAMB: Okay. The SA DEIS in the same area  
16 says the detention basins will be designed so that the  
17 retained flows will empty within 72 hours after the storm  
18 to provide mosquito abatement and the design can be  
19 accomplished by draining, evaporation, and filtration or  
20 combination thereof.

21 It goes on to say that site drainage during  
22 construction will follow pre-development flow patterns  
23 with ultimate discharge to the BNSF right of way and  
24 ultimately at the westernmost property boundary. That is  
25 correct then, right?

1 MR. WEAVER: Yes.

2 MR. LAMB: And it's correct now, right?

3 MR. WEAVER: Well, there -- sure. There's no  
4 indication of alteration. It will flow as it has and is.

5 MR. LAMB: Okay. And then on July 21st, 2010,  
6 the Supplemental Staff Assessment was put out, right?

7 MR. WEAVER: Yes.

8 MR. LAMB: And you handled soil and water for  
9 that, right?

10 MR. WEAVER: Yes.

11 MR. LAMB: And at C.7-2 the SSA made the  
12 following finding: Quote, impacts due to flooding in  
13 these areas are potentially significant without adequate  
14 mitigation. This leaves portions of the project subject  
15 to significant adverse impact due to flooding, end quote.

16 You believed that then, right?

17 MR. WEAVER: Yes.

18 MR. LAMB: You believe it now, right?

19 MR. WEAVER: Yes.

20 MR. LAMB: When you testified during the Barstow  
21 hearings, but from here on the phone, you were frustrated  
22 because applicant kept changing the numbers and sizes of  
23 detention basins, right?

24 MR. WEAVER: I don't remember being frustrated by  
25 it.

1 MR. LAMB: Well, you testified that applicant  
2 kept changing the numbers and sizes of the detention  
3 basins, right?

4 MR. WEAVER: That was a historical discussion of  
5 the evolution of the project.

6 MR. LAMB: Okay. And on that transcript,  
7 8/6/2010 at 47, 17-20, you said, quote, Soil and Water 8  
8 was written to assure that the applicant would develop an  
9 appropriate design and will construct adequate flood  
10 control features that will protect the site from flooding  
11 hazards, end quote.

12 Do you remember that?

13 MR. WEAVER: Yes, I do.

14 MR. LAMB: That was true then, right?

15 MR. WEAVER: Yes.

16 MR. LAMB: That was important then, right?

17 MR. WEAVER: Right?

18 MR. LAMB: It's important now, right?

19 MR. WEAVER: It's right there in Soil and Water 8

20 MR. LAMB: Well, that's a different Soil and  
21 Water 8.

22 MR. WEAVER: It has everything that -- well,  
23 almost everything. You can see through the strike  
24 through --

25 MR. LAMB: Except for detention basins.

1           It doesn't have detention basins, right?

2           MR. WEAVER: It has provisions for the  
3 construction of detention basins should that design be  
4 re-erected.

5           MR. LAMB: Okay.

6           MR. WEAVER: It even goes so far as the Division  
7 of Safety Dams, if the detention basins have dams that  
8 meet that jurisdictional requirement.

9           MR. LAMB: You further explain, quote, compliance  
10 with Soil and Water 8 will protect the project from  
11 flow -- excuse me -- from flood hazards resulting from the  
12 hundred-year storm while allowing pass through of flows  
13 resulting from smaller storms to replenish sediment in  
14 channels allowing ground water recharge along the  
15 drainages which will maintain the function of the desert  
16 washes.

17           Do you remember that?

18           MR. WEAVER: Yes, I do.

19           MR. LAMB: And that was true then, right?

20           MR. WEAVER: That was the concept.

21           MR. LAMB: Well, it was true, right?

22           MR. WEAVER: I thought that that was a method  
23 that would work, yes.

24           MR. LAMB: And you think it would work today too,  
25 right?

1 MR. WEAVER: Sure.

2 MR. LAMB: And that Soil and Water 8 at that time  
3 included detention basins, right?

4 MR. WEAVER: Yes. The design just changed last  
5 week to not having detention basins.

6 MR. LAMB: Right. And do you recall that during  
7 the Barstow hearing, applicant was resisting Soil and  
8 Water 8 that was being proposed at the time?

9 MR. WEAVER: We discussed the elements in Soil  
10 and Water 8.

11 MR. LAMB: Okay. Do you remember Ms. Foley  
12 Gannon offering to stipulate to Soil and Water 8 and agree  
13 with its inclusion?

14 MR. WEAVER: Yes.

15 MR. LAMB: Okay. And that happened, for the  
16 record, at the transcript at 49 1 through 5.

17 And the quote is: The applicant is willing to  
18 stipulate to Soil and Water 8 and agree with its  
19 inclusion.

20 Do you remember that?

21 MR. WEAVER: Yes.

22 MR. LAMB: And that included detention basins,  
23 right?

24 MR. WEAVER: Soil and Water 8 does discuss  
25 detention basins. It did then; it does now.

1 MS. FOLEY GANNON: Hearing Officer Kramer, it  
2 seems that we're spending a lot of time going over  
3 testimony that was previously given by Mr. Weaver and  
4 asking if he still believes in that testimony.

5 Maybe a generally question of if he has changes  
6 to his previous testimony, if disagrees anything he  
7 previously said. I mean, it think it would be good if we  
8 could move on to some new ground.

9 HEARING OFFICER KRAMER: Well, I suppose the  
10 danger in that kind a question is the imprecision of it.

11 So, Mr. Lamb, can you make an offer of proof of  
12 the importance of continuing along this exploratory line?

13 MR. LAMB: Actually, I was done. That was the  
14 end of his testimony.

15 HEARING OFFICER KRAMER: Even better.

16 MR. LAMB: I was not going to -- he hadn't  
17 testified after that other than what he just did here.

18 Do you agree that the project and reports  
19 prepared for the project shall comply with the  
20 requirements of the San Bernardino County Drainage Manual?  
21 That's number 6 of Soil and Water 8 that was proposed by  
22 the applicant on page 40.

23 MR. WEAVER: Could you say that again?

24 MR. LAMB: Okay. I want to know if you agree  
25 that condition, because there's a couple things going on

1 here. First of all, let's back up. All the analysis  
2 before that was done was for a hundred-year flood, right?

3 MR. WEAVER: It's my understanding that the  
4 design storm was a five-year storm, that the structures  
5 would be constructed in an area that wouldn't be inundated  
6 or impacted from a five-year flood.

7 The hundred-year storm was the -- it was the  
8 design storm for the structures, for the flood control.  
9 Flood control was based on the hundred-year storm. So the  
10 project design would be different. The flood control  
11 would be elements of the project.

12 MR. LAMB: Do you agree that the project site has  
13 to withstand a hundred-year storm?

14 MR. WEAVER: Yes.

15 MR. LAMB: Okay. So it has to be designed to  
16 meet that specification.

17 MR. WEAVER: To prevent it from being impacted  
18 from a hundred-year storm.

19 MR. LAMB: And all the prior analysis prior to  
20 about a week ago was done with that assumption, right?

21 MR. WEAVER: I wouldn't agree with all the  
22 analysis, no.

23 MR. LAMB: Well, that was an assumption that  
24 applied.

25 MR. WEAVER: For the -- for flood control.

1           MR. LAMB: Right. And you heard Dr. Chang  
2 testify today that he didn't do an analysis for the  
3 hundred-year storm.

4           MR. WEAVER: I didn't hear that in particular. I  
5 did hear his testimony. I didn't hear that he didn't do a  
6 study for the hundred-year storm.

7           MR. LAMB: Would it concern you if he testified  
8 he didn't?

9           MR. WEAVER: That he what?

10          MR. LAMB: That he did not.

11          MR. WEAVER: He qualified his study as being a  
12 sediment supply report. So, you know, you were talking  
13 earlier about the percentages and probability of a  
14 hundred-year storm happening. I don't know, I can't talk  
15 for him.

16          MR. LAMB: Okay. And you don't believe that that  
17 sediment supply report is sufficient to warrant the  
18 findings that he made?

19          MR. WEAVER: No. That's why we've recommended  
20 these -- the final hydrologic report, geomorphic reports.

21          MR. LAMB: So for over a year the assumption was  
22 that there were going to be detention basins, right?

23          MR. WEAVER: That was the design. That was the  
24 design that we analyzed.

25          MR. LAMB: Other than the fact that on



1 September 3rd the Committee issued an order requiring a  
2 reduced footprint, have you seen any other reason to  
3 justify the removal of the detention basins?

4 MR. WEAVER: No.

5 MR. LAMB: Okay. Now, in your -- you're saying  
6 you're not familiar with Exhibit 1021, the Ivanpah --

7 MR. WEAVER: Correct.

8 MR. LAMB: --issue.

9 If one of your colleagues within the CEC staff  
10 made a finding that the San Bernardino requirements in  
11 relation to flood control and drainage were not specific  
12 enough to ensure that best management practices were  
13 employed and that something more strict than that needed  
14 to be employed, would you have any reason to disagree with  
15 that?

16 MR. WEAVER: No, I wouldn't have -- no. We have  
17 free flow of information. If somebody shows me something  
18 that I didn't know about, I'd be appreciative of it.

19 MR. LAMB: Okay. Have you made a determination  
20 by analyzing the San Bernardino County requirements  
21 whether or not they are strict enough if they're complied  
22 with?

23 MR. WEAVER: I think one of the co- -- I know one  
24 of the co-authors of the document that we put together did  
25 do that. Steve Allen is our hydrologic expert.

1           MR. LAMB:   And has a determination been made  
2 whether they are?

3           Let me be clear, Mr. Weaver.   The reason why I'm  
4 asking is because what applicant said is they're going to  
5 comply, and that could be viewed one of two ways.   At a  
6 minimum they'll do that, but they'll do whatever else is  
7 necessary, or that as long as they do that, that will be  
8 sufficient.   And this is the problem with some of these  
9 conditions, is they can be read in two different ways.  
10 And I'm trying to figure out, you know, as you're  
11 analyzing these and making comments on them, how you're  
12 looking at that.   Do you understand what I'm saying?

13           MR. WEAVER:   Sure.   Yeah, it's important when we  
14 write these conditions, that they are enforceable.   I  
15 mean, that's --

16           MR. LAMB:   Yes.

17           MR. WEAVER:   -- we end up coming around to the  
18 compliance issue as well.   We do both the siting and the  
19 initial analysis and we also do the compliance.   So we  
20 wear both hats.

21           So we -- you know, not everybody's, perfect we  
22 try to make it an enforceable document that holds somebody  
23 accountable to it.   With San Bernardino in particular,  
24 they're one entity.   You know, they -- in there we say  
25 that they're going to review it and comment.   You know, we

1 want to include BNSF as well.

2 MR. LAMB: Okay. So by that, if you accept  
3 number 6, you're not saying then that compliance with  
4 San Bernardino means it's compliance. You're viewing it  
5 more as the minimum rather than if they do that they meet  
6 the requirements?

7 MR. WEAVER: Soil and water 8 has a lot more to  
8 it than this performance specification, number 6. This is  
9 one element of it. And I think we've addressed it in Soil  
10 and Water 8 as a stand alone.

11 MS. BURCH: Could you --

12 MR. LAMB: Well, here's the problem. I mean,  
13 there's an interlineation of FEMA's guidelines.

14 MS. BURCH: We're looking at the proposal you  
15 were going over with Ella at the beginning of this  
16 session.

17 MR. LAMB: Right. It's on --

18 MS. BURCH: Where you're saying what you'll do to  
19 the six and seven points that she proposed. And in  
20 Number 6, she struck "FEMA" --

21 HEARING OFFICER KRAMER: Microphone.

22 MS. BURCH: -- she had struck FEMA, she has said,  
23 "shall comply with San Bernardino." I believe in your  
24 draft, it said, "as applicable San Bernardino will be  
25 used." And of course you had "FEMA," which we agreed

1 with.

2 MS. FOLEY GANNON: For clarity, these weren't --  
3 he testified that these were not replacing his, these were  
4 in addition to his conditions.

5 MS. BURCH: So how are we supposed to interpret  
6 "as applicable" versus "shall" in the same soil and water?

7 PROJECT MANAGER MEYER: I think we have a lot of  
8 different questions going on here. I just want to make  
9 sure the staff's answering the right one.

10 As we talked about briefly earlier, the applicant  
11 stipulated to staff's condition of certification and then  
12 the additional performance were being added on top of  
13 that. We are not accepting the applicant's rewrite of 8,  
14 you know, where -- it would -- which includes that  
15 deletion in 6.

16 MS. BURCH: 6 is not changing.

17 PROJECT MANAGER MEYER: No, we -- the soil -- as  
18 we said three times already, Soil and Water 8 as in the  
19 Supplemental Staff Assessment Addendum is what the --  
20 we're -- staff is sticking with, we're proposing, and with  
21 the addition, not elimination, the addition of a new  
22 performance criteria that we've been talking about here  
23 and they're talking about doing some modification to those  
24 performance criteria, but not to the actual condition. If  
25 I summarized that correctly?

1 MR. LAMB: So just -- go ahead and answer the  
2 question, Mr. Meyer.

3 MR. WEAVER: Yes, he did a good summary of that.

4 MR. LAMB: So if you look at C-714 of Soil and  
5 Water Resources 9, then that's what you're proposing,  
6 which would include San Bernardino and FEMA, San  
7 Bernardino as applicable?

8 I'm sorry, this is just really confusing to us  
9 and we're trying to sort it out, so I apologize. It's  
10 tedious.

11 MR. WEAVER: I brought the information in that I  
12 thought we were going to be discussing today, but we'll  
13 get it.

14 That's C-714?

15 MR. LAMB: Yes, sir. C-714 and Number 9.

16 MR. WEAVER: Okay.

17 MR. LAMB: That would be the course, that's what  
18 you're proposing, that would not change. It starts "In  
19 addition to the criteria."

20 MR. WEAVER: That's correct.

21 MR. LAMB: Okay. All right. That answers my  
22 question. I appreciate it.

23 Thank you, Mr. Weaver, I appreciate your time and  
24 your clarifications, sir.

25 MR. WEAVER: You're welcome.

1 MR. LAMB: I don't have any further questions.

2 HEARING OFFICER KRAMER: Anyone else?

3 MR. LAMB: I would -- I would like to know though  
4 from the staff's perspective and the applicant's  
5 perspective if there's going to be some type of workshop  
6 or something that's going to combine this so we can get a  
7 sense of what it real is.

8 PROJECT MANAGER MEYER: I'll leave this up to the  
9 Committee to clarify, but our understanding is that  
10 we've -- we're putting this on the record for the  
11 Committee to develop their PMPD, and then that will be all  
12 parties' opportunity to make comments on that condition.  
13 But where -- I think we're trying to get into the record  
14 what everyone's positions are so that the Committee in  
15 their wisdom can, you know, put something together that  
16 actually makes sense.

17 HEARING OFFICER KRAMER: I think it would helpful  
18 to us if staff tomorrow could take their Soil and Water 8  
19 and add in the features that you said were acceptable to  
20 you from applicant's Appendix E to Exhibit 114, or  
21 Attachment E I guess it was, and sort of blend those in  
22 the way that you think it works to assist us so we're at  
23 least more likely to appreciate what it is exactly that  
24 you would like to see.

25 PROJECT MANAGER MEYER: Could staff ask that BNSF

1 send any thoughts they have on that as well, because I  
2 know that they were going save those for PMPD comments,  
3 but if you send an e-mail to all parties to that, maybe  
4 what we send to parties with our understanding of 8 and  
5 our understanding of what BNSF wants, any changes in 8, we  
6 can get something that actually is closer to final.

7 MS. BURCH: And could I just go back and say that  
8 it's really Soil and Water 1 through the end as -- I'm  
9 sorry --

10 MR. LAMB: Ms. White.

11 MS. BURCH: -- Ms. White had pointed out. To  
12 make them all work together.

13 Now, BNSF would be looking at other documents and  
14 Soil and Water 1, 3, as well as 8. I just have to add  
15 BNSF in a couple places.

16 HEARING OFFICER KRAMER: Okay. You're speaking  
17 to the --

18 MR. LAMB: Getting reports.

19 HEARING OFFICER KRAMER: -- consultation --

20 MR. LAMB: Right, sir.

21 HEARING OFFICER KRAMER: -- feature.

22 MS. BURCH: I can do all soil and waters.

23 PROJECT MANAGER MEYER: Right. I think my  
24 understanding is staff is in agreement with that. And  
25 would that be correct to say that my understanding is that

1 that would be acceptable if that was in the PMPD, just  
2 adding BNSF for review of those documents.

3 Applicant?

4 MS. FOLEY GANNON: We're fine with that.

5 PROJECT MANAGER MEYER: Staff?

6 MR. WEAVER: Yes.

7 HEARING OFFICER KRAMER: Well, we'd still -- we'd  
8 be really happy if somebody took a stab at trying to put  
9 all that together.

10 PROJECT MANAGER MEYER: Do you want us to just  
11 focus on 8, or do you want us to actually give the full  
12 soil and water with the addition of BNSF?

13 HEARING OFFICER KRAMER: Might as well go all the  
14 way.

15 (Laughter.)

16 PROJECT MANAGER MEYER: Okay. So we will file  
17 tomorrow the Conditions of Certification for soil and  
18 water as we understand them changed in this proceeding.

19 HEARING OFFICER KRAMER: Thank you.

20 MR. RITCHIE: Mr. Kramer, just procedurally  
21 again, we've mentioned CEQA several times. I think it's  
22 relevant to keep that in mind in this record. Will public  
23 participation and comment be allowed on whatever these  
24 final Conditions of Certifications are whenever they are  
25 developed and finalized?



1 HEARING OFFICER KRAMER: Well, the Committee's  
2 going to issue a --

3 MR. RITCHIE: And will that be 30 days?

4 HEARING OFFICER KRAMER: You can certainly  
5 comment during PMPD comment period.

6 MR. RITCHIE: Which would be 30 days.

7 HEARING OFFICER KRAMER: Yes. Although we will  
8 be encouraging the parties, especially the applicant and  
9 staff, but this group sounds like you're more interested  
10 as a group in proposing modifications to the conditions  
11 than some other people in your position normally would be.

12 We'd like -- we're talking about having a PMPD  
13 comment hearing that will be near the end but not at the  
14 end of the 30 days, and we'd really like people to, if  
15 they can, be ready to talk about their proposed changes at  
16 that conference, because then we can all sit and talk back  
17 and forth and understand each other and perhaps work  
18 things out. Otherwise, you don't know what you're going  
19 to get if all your comments hit the Committee's desk and  
20 we have to figure it out without the opportunity to speak  
21 to you.

22 MR. RITCHIE: Do you know what lead time we would  
23 have between a PMPD and that conference?

24 HEARING OFFICER KRAMER: Well, we need to wait  
25 and see till the end of this evening, but at the end of

1 this evening we were going to announce those dates. I  
2 mean, it would probably be on the order of 2 and a half to  
3 3 weeks, somewhere in that range.

4 MR. RITCHIE: So, sorry 2 and a half to 3 weeks  
5 of the PMPD coming out, or that would be the difference  
6 between 2

7 HEARING OFFICER KRAMER: It would be -- you'd  
8 have 2 and a half to 3 weeks after the PMPD is released  
9 this comment hearing would be held. You could wait until  
10 the end of the period. It's just not terribly productive.  
11 And we would be especially disappointed in the staff and  
12 the applicant if they were to do that.

13 MR. RITCHIE: And I understand. And, I mean, the  
14 reason -- the timing again as we brought you before is  
15 becoming more and more critical because we're bumping up  
16 against certain deadlines that we don't have control over,  
17 particularly now.

18 I don't think 30 days from now we could guarantee  
19 that it's going to be appropriate to survey these sites  
20 and do any sort of Desert Tortoise movement, because as of  
21 today we're talking October 20th, which I think we've had  
22 some biological evidence, and we can talk about this more,  
23 but, you know, we don't think that that timeline is  
24 appropriate.

25 And if we're pushing this out, you know, even

1 farther and then 30 days to that, I think that just goes  
2 to what we started with of this doesn't appear to be a  
3 project that is allowing the appropriate level of public  
4 comment, given the timeframes that we're facing here. And  
5 that doesn't necessarily require a response. I can leave  
6 that on the record.

7 HEARING OFFICER KRAMER: Rhetorical point noted.

8 (Laughter.)

9 HEARING OFFICER KRAMER: Okay. So I think I've  
10 lost track, but --

11 MR. BASOFIN: Mr. Kramer, I have a couple  
12 questions.

13 HEARING OFFICER KRAMER: Ah, thank you. So  
14 intervenors, other intervenors, questions for staff.  
15 Go ahead.

16 CROSS-EXAMINATION

17 MR. BASOFIN: Mr. Weaver, Joshua Basofin with  
18 Defender's of Wildlife. Just a couple questions.

19 Would you expect for a project of this type that  
20 a stormwater model be done

21 MR. WEAVER: A stormwater model?

22 MR. BASOFIN: Yeah.

23 MR. WEAVER: Yes.

24 MR. BASOFIN: Okay. And has a stormwater model  
25 been done for this project that you're aware of?

1 MR. WEAVER: There's been lots of hydrologic  
2 study done. Again, we realized that there needs to be  
3 more. And that's why we put that into Soil and Water 8 as  
4 a requirement of that condition.

5 MR. BASOFIN: And can you -- do you have the  
6 ability to fully analyze the effect of say a hundred year  
7 flood event in the absence of a stormwater model?

8 MR. WEAVER: I'm not a hydrologist. We have the  
9 experts with us that can -- would be able to answer that  
10 better than I.

11 MR. BASOFIN: Would you have the ability to fully  
12 analyze the effect of scour in the absence of a stormwater  
13 model?

14 MR. WEAVER: Well, the stormwater model term is  
15 different. I mean, if we're going to do a final  
16 hydrologic model -- or report, it should have that kind of  
17 information if in it, and modeling would occur. I mean  
18 that's part of that kind of a report.

19 MR. BASOFIN: And is modeling -- stormwater  
20 modeling something that you're expecting to receive at  
21 some point?

22 MR. WEAVER: I would expect so.

23 MR. BASOFIN: But you're not aware of it?

24 MR. WEAVER: Again, I'm not a hydrologist, but  
25 when, you know, we recommend that a final hydrologic

1 report be conducted, that it would have that kind of  
2 information in it.

3 MR. BASOFIN: Okay. Thank you.

4 HEARING OFFICER KRAMER: Ms. Miles.

5 CROSS-EXAMINATION

6 MS. MILES: Thank you. I've got a question for  
7 Mr. Huntley in regard to testimony that I believe I just  
8 heard.

9 Is it correct that you just testified that it  
10 will be speculative what will happen to the ESAs?

11 MR. HUNTER: This is Chris.

12 No, we have a series of Conditions of  
13 Certification for rare plants that would be implemented.  
14 I spoke out of turn. Bottom line is the habitat within  
15 those ESAs will be monitored. The populations of those  
16 plants, both on-site and off-site, will be monitored. If  
17 remedial actions are needed to be taken, they will be  
18 implemented. And if I have missed anything, Mr. White,  
19 then further clarify that.

20 MR. WHITE: I don't think you missed too much,  
21 but it might be -- it's worth adding that we contracted  
22 with Phil Williams and Associates who did some watershed  
23 analysis, sediment transport analysis, oil and sand  
24 movement. I shouldn't say analysis for that part, but it  
25 played into it. The locations of the Whitemargin

1 Beardtongue, with one or two exceptions, are near small  
2 drainage ways within the project area, that the drainage  
3 ways themselves were not previously proposed to have  
4 upstream debris basins or to our understanding other flood  
5 control modifications.

6 In particular, I'm looking at -- well, actually  
7 all the project maps would look the same in this part.  
8 Section 18 in the southern corner of the project has a --  
9 on the western part of Section 18, there's a cut-out  
10 segment there of probably about 60 acres or so. And one  
11 of the Whitemargin Penstemon occurrences is within that  
12 area.

13 And it's very close to a small wash that  
14 originates from the southeast and drains towards the west.  
15 And that wash was not proposed previously and is not  
16 proposed now as far as I know, to have any kind of flood  
17 control work done on it at all.

18 So that's kind of the most important example.  
19 That's the location where the most of those plants were.  
20 There are several other locations where fewer plants were  
21 found. And with only 1 or 2 exceptions, those fell into  
22 the same scenario where the upstream hydrology wasn't  
23 going to be affected even under the previous project  
24 description.

25 MS. MILES: And with the mitigation monitoring

1 and remedial action, do you believe that the mitigation  
2 will be effective? Do you believe that populations  
3 will -- or actually, how do you -- do you believe it will  
4 be effective and how do you define effective?

5 MR. WHITE: For that species we recommended a  
6 suite of mitigation measures, including avoidance on site  
7 as has been discussed here, a 250-foot buffer area  
8 surrounding the individuals plants. In addition to that,  
9 long-term monitoring adoption of adaptive management  
10 measures as appropriate. We recommended collecting seed  
11 and retaining a portion of that in perpetuity in seed  
12 banks for germplasm storage.

13 We also recommended monitoring of sand transport  
14 eastward across the project site, from the project area  
15 into the Pisgah Crater ACEC, where the much greater  
16 majority of the California occurrences of these plants are  
17 located.

18 And again, adopting adaptive management measures  
19 as may be needed, but our sand transport study indicates  
20 that there's probably only minimal sand transport eastward  
21 from the site. And further that, known occurrences of the  
22 plants elsewhere in Arizona and in Nevada rely, only to a  
23 very small extent, on sand transport mechanisms for their  
24 habitat.

25 I suspect I'm leaving something, but we have a

1 pretty long list of mitigation measures for that plant.  
2 And in sum, our conclusion is that it reduces potential  
3 project impacts to below a level of significance.

4 MS. MILES: In some, in which ones do you know?

5 MR. WHITE: In s-u-m, sum.

6 MS. MILES: In sum, thank you. I wasn't sure  
7 what you meant by that.

8 All right, that was my only question.

9 Thanks

10 MR. BASOFIN: Mr. Kramer, so we just got into the  
11 Whitemargin Beardtongue and I have a few questions about  
12 that, but I don't know if I should save them until we're  
13 fully into Biology, because that was sort a --

14 HEARING OFFICER KRAMER: I would say so, yeah.  
15 Just cross over questions for now.

16 Does anyone on the telephone have a question?

17 Okay, I think.

18 Any redirect, Mr. Adams?

19 STAFF COUNSEL ADAMS: No.

20 MS. FOLEY GANNON: I have 3 questions.

21 HEARING OFFICER KRAMER: Applicant?

22 MS. FOLEY GANNON: If I can ask.

23 RE-CROSS-EXAMINATION

24 MS. FOLEY GANNON: Mr. Weaver, there was a  
25 question about whether the SunCatchers are impervious



1 surfaces or not. And I think you said, of course, they're  
2 steel peels. They're impervious. I think what Dr. Chang  
3 was actually testifying to was the impact of putting in  
4 2-foot poles on a 2-inch diameter -- 2-foot diameter poles  
5 on a site of this size. And I believe his testimony said  
6 that he thought it would be an insignificant creation of  
7 impervious surface for the entire site. Would you agree  
8 with that characterization?

9 MR. WEAVER: I think I've gone a little too far  
10 in the hydrology stuff actually. I probably shouldn't be  
11 testifying to that.

12 That said, you know, it would be all about the  
13 density and if they are to be located in drainages, there  
14 would be more impact than if they weren't in drainages.

15 MS. FOLEY GANNON: Okay. And then there was also  
16 a question saying that in the earlier versions of the  
17 Staff Assessment, and there had been a reliance on the  
18 detention basins to mitigate to less than significant.  
19 And I don't know if you got to answer the question, is you  
20 said that with the detention basins it was less than  
21 significant. But were you saying that there had to be  
22 detention basins for there to be an impact that was less  
23 than significant -- to mitigate the impacts to less than  
24 significant?

25 MR. WEAVER: Not necessarily.

1 MS. FOLEY GANNON: And there was also a question  
2 about the analysis that you have done and whether there's  
3 sufficient information for you to do that analysis. Do  
4 you know the types of impacts that can happen to soil and  
5 water as a result of the construction of this type of  
6 project?

7 MR. WEAVER: Sure.

8 MS. FOLEY GANNON: And you've established  
9 performance standards that address those types of impacts?

10 MR. WEAVER: Yes, those would be shown in the  
11 condition for development of the DESC.

12 MS. FOLEY GANNON: And the various soil and water  
13 conditions that we've been talking about this evening.

14 MR. WEAVER: And some of the other soil and water  
15 conditions, right. Correct.

16 MS. FOLEY GANNON: And again just as your  
17 conclusion -- is it your conclusion that these conditions,  
18 these performance standards are sufficient to mitigate  
19 these impacts to a less than significant level?

20 MR. WEAVER: Yes.

21 MS. FOLEY GANNON: Thank you. No further  
22 questions.

23 HEARING OFFICER KRAMER: Okay. Mr. Lamb, your  
24 witnesses on soil and water.

25 MR. LAMB: Thank you. We have three witnesses

1 that we'd like to bring up. Douglas Hamilton, Steven  
2 Metro and David Miller.

3 HEARING OFFICER KRAMER: And I can't recall if  
4 they've been sworn before.

5 MR. LAMB: None of them have before sworn.

6 HEARING OFFICER KRAMER: Okay. Gentlemen if you  
7 would raise your right hands.

8 Whereupon,

9 DOUGLAS HAMILTON, STEVEN METRO and DAVID MILLER  
10 being sworn to the truth, the whole truth and nothing but  
11 the, testified as follows:

12 HEARING OFFICER KRAMER: Okay, let me get you a  
13 microphone.

14 MS. SMITH: Mr. Kramer, can I just ask a quick  
15 question. This is Gloria Smith.

16 HEARING OFFICER KRAMER: Sure.

17 MS. SMITH: It's 9 o'clock. It was my  
18 understanding that we were going to start with Bio. This  
19 hearing has been going for 8 hours. I'm just wondering if  
20 there's some kind of a plan here on when we're going to  
21 get to bio and whether that will be today, or if this  
22 hearing will be continued to a time when people can sort  
23 of do this when they've got their wits about them.

24 MS. MILES: Yeah, I'd like to just second that  
25 comment. I've actually been going since 9 a.m. like all

1 of you. And it's not to say that it's physically  
2 impossible, but the quality of the testimony, the quality  
3 of the ability to synthesize the material does degrade.  
4 And I think at 1 a.m. it's pretty much null.

5 PRESIDING MEMBER EGGERT: This is Commissioner  
6 Eggert. I guess I would just say that, you know, I  
7 recognize the challenge that this presents, in terms of  
8 trying to work through these issues, but this is the 6th  
9 day of this evidentiary hearing. The Committee does  
10 intend to try to get through all the evidence today.

11 And so again, I would just sort of reiterate that  
12 we would appreciate people basically speaking only to the  
13 those issues that are relevant to what the Committee is  
14 wrestling with, which is the revised project proposal.  
15 And if we go to nil at 1 in the morning, I don't know if  
16 there's a degradation gradient between now and then, but  
17 perhaps, you know, that might be our target time for the  
18 conclusion of this.

19 I think, you know, if everybody can be, you know,  
20 basically providing very direct questioning, make sure  
21 that you tell us where you're going, give the Committee  
22 all the information that we would need to have the benefit  
23 of your thinking, I think that we'll be able to get  
24 through this in a timely fashion.

25 And I think actually, I'm going to speculate that

1 we did anticipate that the soil and water issues were  
2 going to be a challenge. I think with respect to Biology  
3 obviously there's a number of issues we do need to dig  
4 into. But for the most part there, it's more of a, you  
5 know, understanding the changes to the impacts, most of  
6 which we anticipate to be reductions in impacts and how  
7 that affects the mitigation requirements. So the hope is  
8 that that actually will go more quickly.

9 MS. SMITH: Well, and I do appreciate that. And  
10 I understand that every one is doing their best to get  
11 through this. But from environmental intervenor's  
12 perspective it is always bio that gets kicked to the  
13 middle of the night, unfailingly. And it hasn't only been  
14 on this particular project. And it's very frustrating for  
15 us. You know, we've been prepared to go since 1 o'clock  
16 this afternoon for this case, for Calico. And here it is,  
17 some 8 hours later with no hope in sight. And this isn't  
18 the first time that Bio has gone again, you know, in just  
19 some insane hour. So it's just very frustrating for us.

20 HEARING OFFICER KRAMER: Well, I understand.  
21 It's certainly not intentional. And what we'll do is  
22 we'll have Bio follow Soil and Water then, which will, I  
23 suppose, help a little bit.

24 MS. MILES: Actually, cultural has been kicked to  
25 the end as well in this proceeding. And I do remember

1 very late nights where BLM protested vociferously.

2 PROJECT MANAGER MEYER: Just from staff, since  
3 cultural is going to hopefully be very quick now, we can  
4 maybe get that done in -- and let those people go.

5 HEARING OFFICER KRAMER: Those people who are  
6 closest to their warm beds.

7 PROJECT MANAGER MEYER: Yeah. I was avoiding  
8 making that point previously.

9 HEARING OFFICER KRAMER: Okay. Well, let's get  
10 to the point where we have to decide who goes next.

11 So, Mr. Lamb, if you could introduce your  
12 panelists and have them spell their name for our court  
13 reporter so they will famous under their correctly spelled  
14 names.

15 DIRECT EXAMINATION

16 MR. LAMB: Certainly. Douglas Hamilton, would  
17 you state and spell your name for the record, please?

18 MR. HAMILTON: Yes, I'm Douglas Hamilton,  
19 D-o-u-g-l-a-s, H-a-m-i-l-t-o-n.

20 MR. LAMB: And Steven Metro will you do likewise,  
21 sir.

22 MR. METRO: Steven Metro with a V. And it's  
23 M-e-t-r-o.

24 MR. LAMB: And finally David Miller, will you  
25 also do that for the record, please.

1 MR. MILLER: David Miller, D-a-v-i-d,  
2 M-i-l-l-e-r.

3 MR. LAMB: For the record, we have submitted the  
4 prepared direct testimonies of Douglas Hamilton, Steven  
5 Metro and David Miller, and would ask that they be marked  
6 and entered into evidence as Exhibits 1211 for Hamilton,  
7 1212 for Metro, and 1213 for Miller.

8 HEARING OFFICER KRAMER: Are those numbers  
9 already marked on the electronic copies you sent out?

10 MR. LAMB: They are not, sir.

11 HEARING OFFICER KRAMER: Okay. Then let me make  
12 sure I make that note before we forget.

13 MR. LAMB: Sure.

14 HEARING OFFICER KRAMER: Okay, so go ahead again,  
15 1211.

16 MR. LAMB: Hamilton is 1211. Metro is 1212 and  
17 Miller is 1213.

18 HEARING OFFICER KRAMER: Please go ahead.

19 MR. LAMB: Thank you, sir.

20 Mr. Hamilton, did you prepare some direct  
21 testimony in a written form for this proceeding?

22 MR. HAMILTON: Yes, I did.

23 MR. LAMB: And did you review it and sign it  
24 under penalty of perjury?

25 MR. HAMILTON: Yes.

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

3 MR. HAMILTON: Yes.

4 MR. LAMB: And do you so affirm it here today?

5 MR. HAMILTON: Yes.

6 MR. LAMB: Can you explain briefly without going  
7 into all the details of your CV, just so that the  
8 Commission gets an overview of your professional  
9 background and your relationship to railroads in general.

10 MR. HAMILTON: Okay. I'm a civil engineer. My  
11 background is in water resources and hydrology. Studied  
12 at UC Davis. I've worked a lot with issues related to the  
13 National Flood Insurance Program. In 1996, I was on a  
14 National Research Council Committee that was called  
15 alluvial fan flooding, that was for FEMA. I was on the --  
16 I was a consultant to the Governor's task force on  
17 flooding, which was about 10 years ago. And then the  
18 government's task force on alluvial fan flooding, which  
19 was about ended about a year ago.

20 And I've also worked a lot in desert areas  
21 related to flooding effects near railroads, and also  
22 desert hydrology in general.

23 MR. LAMB: And what projects have you worked on  
24 in relation to railroads in particular, sir?

25 MR. HAMILTON: I worked on the rail collapse in



1 2004 in the Victorville, Hesperia area. Also, I've worked  
2 on other flooding issues for railroads in Carson that were  
3 in areas where the land was subsiding and they had  
4 drainage problems, and worked on the Kingman Amtrak  
5 accident several years back.

6 MR. LAMB: And would you say, sir, that you're  
7 familiar generally with drainage issues that impact  
8 railroads?

9 MR. HAMILTON: Yes.

10 MR. LAMB: Now, you understand that this  
11 particular project involves a site that has alluvial fans,  
12 right?

13 MR. HAMILTON: Yes.

14 MR. LAMB: And you heard the testimony of Dr.  
15 Chang regarding his viewpoint of an alluvial fan, right?

16 MR. HAMILTON: Correct.

17 MR. LAMB: And he used the term equilibrium or  
18 near equilibrium. Could you explain to the Commission if  
19 you agree with that? And if not, why?

20 MR. HAMILTON: Okay. It's probably not that  
21 important in this context, but equilibrium means you have  
22 the same amount of sediment and approximately the same  
23 size of sediment going into the upper end of the river as  
24 coming out the lower end. So what happens is, you neither  
25 have deposition of lots of sand building up in the river

1 and you don't have scour either. It kind of just stays  
2 that way.

3 And that applies mainly to rivers that have water  
4 flowing through them all the time. I don't know that it's  
5 that applicable to alluvial fans, because that's the  
6 definition of an alluvial fan is there's large sediment at  
7 the top and it gets smaller as you go down. Otherwise,  
8 you don't have a fan.

9 MR. LAMB: And an alluvial fan, such as the  
10 alluvial fan in this particular project site are they  
11 stable?

12 MR. HAMILTON: No, these aren't. The information  
13 I found, there's a geologic map done by a fellow named  
14 Dibley. That's very helpful on this. But it's all -- the  
15 soils are classified as recent alluvium and recent  
16 alluvium gravel. And reading through the Huitt-Zollars  
17 Report, I think they said they counted more than 100  
18 channels as they walked across the site, you know, so they  
19 would have been walking in a direction that basically is  
20 perpendicular to the way the water is flowing off the  
21 mountains.

22 MR. LAMB: Now, these hundred channels that they  
23 counted, are these channels that are set in place and  
24 aren't moving based on future storm events.

25 MR. HAMILTON: No, they move, and sometimes what

1 happens is up closer to the mountains the water can move  
2 one way or the other, and then it forms new channels. And  
3 the other channels that look like they're channels really  
4 are no longer connected to the source water. So they're  
5 kind of abandoned. And that's the process that goes on  
6 with active alluvial fans.

7 MR. LAMB: So these stream channels jump around?

8 MR. HAMILTON: Yes, and they form new ones. And  
9 if you, you know, base a design on the assumption that  
10 those channels are permanent, will always be there and  
11 they won't move around, then -- well, it's usually not  
12 done. We've kind of learned that that's a bad way to  
13 design things.

14 MR. LAMB: And in relation to an alluvial fan  
15 system, such as the one on this project site, if somebody  
16 emplaces structures within that alluvial fan, what, if  
17 any, will be the impact of those streambeds that jump  
18 around?

19 MR. HAMILTON: They can cause erosion, and  
20 undermine the foundation of a building or a structure.  
21 They also have high impact forces, especially out here out  
22 at the site, where the slope is about five percent, the  
23 water can be moving very quickly and carrying large rocks.  
24 So there's, you know, a collision force. And there's  
25 also, what are known as, debris flows. And that's when

1 it's a soil-water mixture that's very thick, almost like  
2 concrete, and it flows down and it can actually bury a  
3 structure.

4 MR. LAMB: Dr. Chang referred to the  
5 Huitt-Zollars study. Are you familiar with that?

6 MR. HAMILTON: Yes.

7 MR. LAMB: Okay, and in that study, there was a  
8 map, a geomorphic hazard map, which concluded that  
9 virtually the entire area between the foot of the Cady  
10 Mountains down to the BNSF right of way is subject to  
11 either severe or high hazard levels. Do you recall that?

12 MR. HAMILTON: Yes.

13 MR. LAMB: And did you agree with that  
14 assessment?

15 MR. HAMILTON: Yes.

16 MR. LAMB: Why is that?

17 MR. HAMILTON: They were able to document the  
18 presence of debris flow channels. Based on the number of  
19 channels that are there, it's indicative of an active  
20 alluvial fan. And it corresponds very well with the  
21 Dibley map of geology -- surficial geology for that area.

22 MR. LAMB: So your testimony essentially is that  
23 these streams, these hundred streams, are essentially  
24 unpredictable, and entirely new streams or desert washes  
25 could be created by a single storm event, correct?

1 MR. HAMILTON: Yeah, that's one of the  
2 problematic things with alluvial fans, and building on  
3 them.

4 MR. LAMB: Now, there's been testimony that the  
5 applicant intends to lineup this SunCatcher system, these  
6 24,000 SunCatchers, on essentially a north-south,  
7 east-west grid. Do you recall that?

8 MR. HAMILTON: Yes.

9 MR. LAMB: With roadways going every other row  
10 between the SunCatchers for the purpose of doing  
11 maintenance on the SunCatchers, right?

12 MR. HAMILTON: That's correct.

13 MR. LAMB: And if I understand it correctly, the  
14 general drainage flow is from the Cady Mountains in the  
15 northeast to the southwest essentially culminating at the  
16 BNSF right of way, correct?

17 MR. HAMILTON: Yes, that's the general direction  
18 of water flow down the -- and that's the steepest  
19 direction. That's why the water is flowing down that way.

20 MR. LAMB: And can you explain to the Commission  
21 what, if any, the impact of this grid system, this linear  
22 grid system, to include roadways would you expect to have  
23 on the flow of that water and why?

24 MR. HAMILTON: In general, what happens, and this  
25 could even happen with a single road that for say a gas

1 pipeline easement, it might cut across a channel and water  
2 escapes out of that channel, and goes down the road and  
3 forms a new channel. And that happens quite frequently,  
4 especially with dirt roads, because they're subject to  
5 erosion by water that's flowing from the mountains. And  
6 if the roads are going north, the water would be crossing  
7 this way. If the roads are going east-west, the water is  
8 still crossing this way, which I think there was some  
9 previous testimony about that. It's just that, if you  
10 have, according to the Huitt-Zollars report, there's one  
11 of these sort of existing washes or depressions about  
12 every 200 feet on the average. And it would be real  
13 difficult to put in a traditional north-south east-west  
14 grid overlaid on a series of channels that are diagonal to  
15 it.

16 MR. LAMB: So you expect there will be an impact,  
17 right?

18 MR. HAMILTON: Yes.

19 MR. LAMB: All right. Now, in your report in  
20 your direct testimony, in talking about detention basins,  
21 you're not saying that there absolutely has to be  
22 detention basins, right?

23 MR. HAMILTON: That's correct. There are lots of  
24 other strategies for mitigating hazards on alluvial fans.

25 MR. LAMB: Okay. But one of the things that you

1 point out is that one of the issues that Dr. Chang has is  
2 that if detention basins or debris basins are put in  
3 place, then sediment won't be able to flow down. And you  
4 say that there's an approach that could be designed so  
5 that sediment does pass through the system and is not  
6 trapped, right?

7 MR. HAMILTON: Yes.

8 MR. LAMB: Can you explain that to the  
9 Commission?

10 MR. HAMILTON: Yes. This is becoming more and  
11 more widely used. And basically, it's a strategy where  
12 you have channels or guidebanks or something like that and  
13 they collect the sediment and the water, and they keep it  
14 moving. And then it goes into discrete channels that are  
15 controlled. And you know where they go, and then they're  
16 released at say the downstream side of your property or  
17 your project in a manner that's similar to the natural  
18 condition. And that way you're not trapping the sediment,  
19 because in a lot of places the sediment itself is an  
20 important resource to the overall biological character,  
21 especially out in the desert.

22 MR. LAMB: So detention basins can be constructed  
23 in such a manner, so that you could then duplicate what  
24 Dr. Chang refers to as Mother Nature, right?

25 MR. HAMILTON: Yes. And I've designed a few of

1 those and they've worked quite well.

2 MR. LAMB: And do you believe that if the project  
3 goes forward as it's been described in Scenarios 5.5 and 6  
4 without any detention basins whatsoever, that as Dr. Chang  
5 says, it will be just like Mother Nature?

6 MR. HAMILTON: Yeah. I'm not sure what he meant  
7 by that, because on an alluvial fan Mother Nature can be  
8 pretty scary.

9 But I think it's probably not an option,  
10 especially if one of the criteria is going to be to adhere  
11 to San Bernardino County's rules, because San Bernardino  
12 county is part of the National Flood Insurance Program,  
13 which is administered by FEMA. They have to follow the  
14 minimum floodplain guidelines from FEMA, one of which in  
15 Section 65.13 says that if you're building something on an  
16 active alluvial fan, you can't -- you can't base your  
17 design on the possibility that the water spreads out into  
18 a lot of different channels, and sort of dissipates by  
19 itself. You have to assume that most of that water is  
20 going to be targeted at the thing you're designing or  
21 something that's important.

22 So that's why there needs to be something at the  
23 northern end that has some type of ability to collect  
24 stormwater from the mountains.

25 MR. LAMB: It doesn't necessarily have to be a



1 detention basin, but some flood control mechanism?

2 MR. HAMILTON: Yes, something.

3 MR. LAMB: And basically it's your testimony that  
4 eliminating flood protection measures at the northern  
5 boundary will subject the site to the full force of  
6 alluvial fan flooding, right?

7 MR. HAMILTON: That's correct.

8 MR. LAMB: And in relation to what you just  
9 testified, do you take issue with Dr. Chang's view that  
10 this will be just sheet flooding?

11 MR. HAMILTON: Yes. I mean, there is such a  
12 thing as sheet flow. I just don't think that's the  
13 process that's going on on this particular --

14 MR. LAMB: What do you think the process is  
15 that's going on on this project site?

16 MR. HAMILTON: These are a series of, it appears  
17 to be about 5 active alluvial fans. And as you go  
18 downhill, they still have this fan shaped topographic  
19 character. That's why they're called fans, but they start  
20 to merge. And it's even -- it's still very step, even  
21 when you reach the BNSF right of way.

22 And so basically what happens is somewhere way up  
23 at the top of one of these alluvial fans the water might  
24 change direction. And instead of flowing down this path  
25 where you think it's going to go, and it might be in a

1 photograph in one of the reports, it's going to go down  
2 this other path. That's what's happening.

3 MR. LAMB: And according to your prepared direct  
4 testimony -- and you've heard the testimony of Mr. Weaver  
5 from the staff, where he said that he felt that Dr.  
6 Chang's analysis was insufficient, right?

7 MR. HAMILTON: I recall the testimony, yes.

8 MR. LAMB: And you would agree that that's your  
9 assessment also?

10 MR. HAMILTON: Yes. It's insufficient for  
11 protecting the solar project, and also from the standpoint  
12 of causing no harm to the BNSF right of way.

13 MR. LAMB: We're not going to go through every  
14 issue, but there's a couple points that you made in your  
15 report that I want you to explain for the Commission.

16 You noted that FLUVIAL-12 is not a computer  
17 program accepted by FEMA for this process, right?

18 MR. HAMILTON: Correct.

19 MR. LAMB: And why is that significant in your  
20 analysis?

21 MR. HAMILTON: Mainly because if the design has  
22 to be compliant with San Bernardino County and FEMA,  
23 they'll want the analysis done with the computer program  
24 that -- like there's a program called H-E-C dash R-A-S,  
25 HEC-RAS, is the name of it. And I saw that referenced

1 somewhere. And they want it to be on that list of  
2 accepted programs, so they can eventually review and  
3 approve it.

4 MR. LAMB: So there are accepted programs like  
5 HEC-RAS?

6 MR. HAMILTON: Yes.

7 MR. LAMB: And FLUVIAL-12 is not one of them?

8 MR. HAMILTON: It's not on the list.

9 MR. LAMB: Now, you also took issue with some of  
10 the calculations that Dr. Chang did in relation to pure  
11 scour depth. And you specifically referred to a standard  
12 formula from the Federal Highway Administration referenced  
13 on page 11 of the Chang Report. There was a problem with  
14 that?

15 MR. HAMILTON: Yes. This is an equation that  
16 calculates scour around the pier. And it's one of the  
17 variables is the diameter of the pier. And then there's  
18 some other things, but there are four values called K1,  
19 K2, K3, K4. And K3 and K4 were missing from the equation  
20 in his report. And I thought that was odd, so I looked it  
21 up and they're there. And those 2 factors are important,  
22 because they have to do with the characteristics of the  
23 soil, and the characteristics of how the water is flowing  
24 past the pier that's being scoured.

25 MR. LAMB: Okay. You also have in your report

1 you talk a lot about what Dr. Chang talked about of his  
2 analysis of a hypothetical channel carrying only 40 cubic  
3 feet per second, that was he used for his calculations,  
4 versus what you showed as a hydrograph, I believe, from  
5 the Huitt-Zollars Report, which showed a maximum flow of  
6 10,000 cubic feet per second.

7 MR. HAMILTON: Correct.

8 MR. LAMB: Can you explain to the Commission why  
9 that's such a big variance and why that's significant to  
10 you in your analysis?

11 MR. HAMILTON: The reason it is a big variance is  
12 that what Dr. Chang did was to look at one of these  
13 channels and say there is a typical desert channel and it  
14 might be a foot deep and it might be 15 feet wide, and  
15 then you figured out how much water could fit in there,  
16 and that's 40 cubic feet per second. So it's based on his  
17 computer program.

18 In reality, the amount of water that's coming out  
19 of all five of those alluvial fans is actually closer to  
20 thousandths. You know, I think it was actually in excess  
21 of 10,000 cubic feet per second. And that's a hundred  
22 year flood calculated in the Huitt-Zollars Report.

23 MR. LAMB: Okay. And ultimately you came up with  
24 a conclusion that based on 5.5 and 6.0, if they're not  
25 mitigated in some way, that it will have an impact on

1 BNSF's right of way, correct?

2 MR. HAMILTON: Yes.

3 MR. LAMB: Can you explain that to the  
4 Commission?

5 MR. HAMILTON: The impact will be -- I think the  
6 amount of scour around the piers and the network of roads  
7 will divert surface water flow that's coming from the  
8 mountains and crossing the Calico Solar site. And when it  
9 rains, I know there's the ability for these SunCatchers to  
10 rotate and maybe have a smaller shadow that would block  
11 the rain. So, you know, it's not like you have a 38-foot  
12 diameter circle covering the dirt when it's raining. But  
13 even if you tilt it, usually when it's raining, rain is  
14 not falling down. The wind is usually blowing it, so it's  
15 always hitting the side, and you don't know which way the  
16 wind is going to blow, and it might change during the  
17 storm, so there's going to be this process.

18 And I've seen this happen in the desert quite a  
19 bit, where water trickles off of something and you form  
20 this preferential flow path. And it just starts to cause  
21 erosion on the soil, because the soil there can only  
22 absorb so much water. And then once it starts having  
23 concentrated water, it starts to erode, you get erosion  
24 gullies. And if there's a very large storm, you know,  
25 there have been extremely large storms out there. Yeah, I

1 think the hundred year storm is 3 and a half inches, but  
2 that's enough rain that just -- it's not something you  
3 could be out there with 24,000 of these things during that  
4 storm.

5           And fixing the roads and so what you'll end up  
6 with, I think, is a very sort of unpredictable series of  
7 interconnected channels that is going to exit the project  
8 site and hit the BNSF right of way, either at a different  
9 place or in a concentrated manner or some other way that  
10 it doesn't happen today.

11           MR. LAMB: And Mr. Hamilton, Dr. Chang  
12 essentially testified that in his opinion the emplacement  
13 of 24,000 SunCatchers pedestals, and that obvious umbrella  
14 type shield that they have over them, coupled with a main  
15 services complex, coupled with a substation complex,  
16 coupled with hundreds of miles of roadway, that's going to  
17 be insignificant in relation to the impervious surface  
18 area of the site, and won't have an impact on essentially  
19 flooding. Do you agree with that?

20           MR. HAMILTON: No, I can't imagine how it could  
21 have no impact. It's going to have an impact. It's an  
22 impact that's able to be mitigated, but it will have an  
23 impact.

24           MR. LAMB: Okay. When you say it's able to be  
25 mitigated, what will you have to do? Do you have any idea

1 at this stage?

2 MR. HAMILTON: I'm just thinking, we sort of  
3 talked about this, but these retention ponds are a good  
4 idea. They seem to work well out in the desert. And  
5 basically, that's a pond where water enters, but it  
6 doesn't leave. It just soaks into the ground and  
7 evaporates.

8 MR. LAMB: Well, originally, the plan included  
9 debris basins up top, and then detention basins throughout  
10 the site, and retention basins, a whole panoply of that.  
11 Is that what you more typically see?

12 MR. HAMILTON: I used to see that a lot. But I  
13 think things are moving now into -- flood protection is  
14 moving more towards the idea that you don't want to trap  
15 all the sediment somewhere and then have to dig it out and  
16 then figure out what to do with sediment you want to pass  
17 it through. It's just a better way to do it, but you need  
18 to engineer it correctly and design it, so it's in a  
19 controlled way, so you know exactly where it's going to go  
20 and how it's going to exit your property.

21 MR. LAMB: So you need to control it at the top  
22 and at the bottom.

23 MR. HAMILTON: Yes.

24 MR. LAMB: And throughout the site?

25 MR. HAMILTON: Yes. Yeah, so you have off-site

1 water coming from the mountains. And you have on-site  
2 water, that's the rain that hits the solar project itself.

3 MR. LAMB: Is there anything else that you think  
4 you need to call to the attention of the Commission before  
5 go onto Mr. Metro?

6 MR. HAMILTON: I think that's it. Thank you.

7 MR. LAMB: Thank you.

8 All, Mr. Metro. And you created some prepared  
9 direct testimony, which was reduced to written form also,  
10 correct, sir?

11 MR. METRO: Yes.

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

14 MR. METRO: Yes.

15 MR. LAMB: And do you affirm it here as your  
16 testimony? It will be exhibit 1212?

17 MR. METRO: Yes.

18 MR. LAMB: Can you please describe for the  
19 Commission, and make sure that you speak up a little bit,  
20 sir, so the people who are falling asleep on the phone  
21 there can hear you, what your background is and your  
22 relationship with railroads

23 MR. METRO: I'm a civil engineer. I have about  
24 38 years of experience. We are a consulting firm that  
25 works a lot for the railroads, BNSF and a large usual.



1           One of my primary projects or responsibilities is  
2 to go out and evaluate the railroads after flood occur or  
3 major rainfall events to determine the cause and the  
4 effect and then recommend remedies for that. And in this  
5 case, it's more being proactive, recognizing that this is  
6 a sensitive corridor for the railroad that has had some  
7 issues with water flowing through it. It's actually a  
8 system of 7 bridges and a major drainage way on the north  
9 side, that needs to be maintained.

10           And in this case, they've asked me to come and  
11 take a look at this is to see what impacts the proposed  
12 conditions will have on the drainage system.

13           MR. LAMB: Mr. Metro, your prepared written  
14 testimony refers to your company completing at least 30  
15 drainage and flood studies for railroad bridges throughout  
16 the southwest. And you personally working on over 20  
17 matters involving drainage and flooding issues in desert  
18 environments with alluvial fans.

19           You also note that you've seen firsthand the  
20 effects of flooding caused by structural improvements  
21 placed upgradient from a railroad right of way. Can you  
22 explain what you mean by that to the Commission?

23           MR. METRO: Yes. As I mentioned in my earlier  
24 description, that is one of the projects or work that I do  
25 is to evaluate floods that have occurred along the

1 corridor, the railroad corridors. Projects have been from  
2 Victorville and Tejon Pass to Kingman, the Empire Canyon,  
3 various areas through California, Arizona, and New Mexico  
4 in particular.

5           And when the flooding occurs, I basically go out  
6 and do the drainage analysis, look at it in the field to  
7 see what has caused it. Alluvial fans with a hundred year  
8 storm, the flows are quite damaging, and as Mr. Hamilton  
9 said, quite unpredictable.

10           MR. LAMB: And how does the emplacement of  
11 structures upgradient from the BNSF railway impact the  
12 flooding in relation to those alluvial fans?

13           MR. METRO: The major concern we have on this  
14 particular project is the impervious areas that are  
15 created with new development. Anytime you go into the  
16 desert and you start disturbing the soils with  
17 construction activity, you start putting in roads and  
18 running heavy equipment over them, you start building  
19 fences and other things that basically change the drainage  
20 hydrology, will have impacts on the downstream recipient,  
21 in this case it would be BNSF Railroad.

22           And our concern is, is that there's enough  
23 structural pieces and predictable devices put in that will  
24 maintain the historic flows as discussed earlier in the  
25 report meetings.

1           MR. LAMB: Okay. Can you describe for the  
2 Commission some of the impacts that you've seen from  
3 flooding and alluvial fans that have hit railroads as a  
4 result of upgradient structures and development? What's  
5 happened?

6           MR. METRO: Well, typically there are lawsuits is  
7 what it ends up with. But normally what happens is the  
8 rainfall comes at a much higher intensity. And the flows  
9 will either wash out the structures, in the worst cases it  
10 will go over the railroad and then interrupt the railroad  
11 services, which is, of course, the main concern that the  
12 BNSF has with flooding.

13           MR. LAMB: And in relation to this particular  
14 project in your prepared direct testimony, you state that  
15 the 24,000 SunCatchers foundations and paths to the main  
16 service complex and substation, hundreds of miles of  
17 access and service roads and associated structures  
18 required to support the proposed project will necessarily  
19 decrease the surface area, that allows for absorption of  
20 stormwater and day-to-day operations associated with the  
21 facility. And that will increase the storm flow water and  
22 alter the already shifting and unpredictable nature of the  
23 streambeds within the alluvial fan, that's your opinion?

24           MR. METRO: Yes.

25           MR. LAMB: Okay. And you've heard what Dr. Chang

1 says, it's not going to be a problem, right.

2 MR. METRO: Yes.

3 MR. LAMB: And you've heard what Mr. Milton said?

4 MR. METRO: Right.

5 MR. LAMB: And based on your training and  
6 experience, is it or isn't it expected to be a problem and  
7 why?

8 MR. METRO: I expect it to potentially be a  
9 problem without the proper mitigation techniques. And  
10 it's mainly caused by the increase in runoff from the  
11 developed site, as well as, in this case, we think the  
12 maintenance roads could potentially change the drainage  
13 patterns out on the developed site. And we feel this  
14 needs to be mitigated, either by detention or  
15 channelization or different types of devices that will  
16 basically reduce the impacts on what we consider this  
17 railroad corridor to be pretty much -- we think it will  
18 pass the hundred year.

19 We're pretty -- our analysis shows that, but  
20 we're concerned that any -- we've had cases where it's  
21 actually got below the low cord, and we want to make sure  
22 that we don't make it any worse.

23 One of the things that, you know, I think we  
24 should be thinking about in this, since it's kind of hard  
25 to understand what exactly the development is to kind of

1 look at the worst case scenarios. I mean, rather than --  
2 it was kind of my feeling as I was reading through,  
3 particularly Dr. Chang's report, that he was kind of  
4 looking at more of the best case scenario. I would be  
5 tempted and I hope that the Committee will encourage that  
6 we put some conservatism in here with the worst case  
7 scenario.

8 MR. LAMB: Well, ultimately, it could result in  
9 completely washing out the BNSF right of way, right?

10 MR. METRO: Correct.

11 MR. LAMB: Now, in looking at the historically  
12 what's happened in relation to storms in the area in  
13 relation to the BNSF right of way through that section,  
14 can you tell the Commission whether or not, in your  
15 opinion, the structures as they're currently constructed  
16 have been sufficient to deal with the storms that have  
17 happened over the past several decades?

18 MR. METRO: We did do a historic search of any  
19 problems they had through this corridor. These structures  
20 were constructed in 1919 and went through the railroad's  
21 records primarily, and then also did a rainfall search for  
22 any flooding in the area.

23 And basically, the system has worked fairly well.  
24 Some of the structures, like I said, the water has gotten  
25 up below the low cord, but it has not shut the railroad

1 down to date that we're aware of.

2 MR. LAMB: Okay, but what if there's a  
3 development upgradient that increases the stormwater  
4 runoff?

5 MR. METRO: If it's not mitigated, it could  
6 potentially cause flooding on the railroad and close down  
7 the corridor.

8 MR. LAMB: Now, you state that contrary to Dr.  
9 Chang's assertions alluvial fans are not stable and are  
10 not at equilibrium, what do you mean by that?

11 MR. METRO: I believe Mr. Hamilton kind of  
12 covered most of that. But basically, the alluvial fans  
13 have a tendency to have lateral migration of the channels.  
14 They kind of tend to switch. Particularly, when you get  
15 into the upper parts, knowing we were doing the analysis  
16 to kind of take a look at this corridor, we had one basin  
17 that was up above that we weren't sure if it was going to  
18 one or the other, which is just an example of what will  
19 happen in these alluvial fans.

20 So we think that that would be a concern of ours  
21 to make sure it doesn't go to the wrong structure and  
22 cause flooding.

23 MR. LAMB: And sir, you comment in your prepared  
24 direct testimony that in your professional experience when  
25 structures are built upgradient of the right of way, along

1 an alluvial fan in a desert environment, there's increased  
2 runoff and erosion along the right of way. And typically  
3 you see back, slope, ditch and culvert damage. What do  
4 you mean by back slope, ditch, and culvert damage?

5 MR. METRO: Basically, it's the ditching on the  
6 north side in particular, and then on some south,  
7 particularly as you move west are kind a major carries of  
8 the stormwater in this area. And, along most of the  
9 railroads. And when we get wash-out, it's what they  
10 typically will see is the backslope will get washed out  
11 and plug up the ditch or the ditches lose their capacity  
12 or start head cutting and get into the maintenance roads  
13 or sometimes even the embankment.

14 MR. LAMB: Okay. And in your prepared direct  
15 testimony, you also State that the current drainage system  
16 of the BNSF right of way does not have the additional  
17 capacity to spare. And it's critical that the proposed  
18 Calico Solar development maintain historic flows and  
19 essentially mitigate their impact. Is that based on your  
20 review of the historic records?

21 MR. METRO: Yes.

22 MR. LAMB: Now, Mr. Metro, one of the things that  
23 I asked you to do that wasn't part of your report was  
24 you've heard testimony about how they're going to emplace  
25 the SunCatchers in these grids and rows, right?

1 MR. METRO: Yes.

2 MR. LAMB: And you heard today, I don't know if  
3 it was -- I think it was Ms. Bellows who said that there's  
4 essentially a dot for every SunCatcher right?

5 MR. METRO: Correct.

6 MR. LAMB: Okay. And what I'd ask you to do is  
7 to take one of those documents that were provided, because  
8 when you look at them the way they're produced they look  
9 like lines, right?

10 MR. METRO: Yes.

11 MR. LAMB: And then you can blow them up and you  
12 can see the dots, right?

13 MR. METRO: Right.

14 MR. LAMB: And I asked you to put that so that it  
15 was overlaid upon the hydrology of the site, at least as  
16 it was expressed in the topographic map, that I believe it  
17 was circa 1992-1993, right?

18 MR. METRO: Right.

19 MR. LAMB: And you did that, right?

20 MR. METRO: Yes.

21 MR. LAMB: We've got this on the a screen, and I  
22 believe -- let me get over here where the mic is, that it  
23 will be viewable. Mr. Meyer assures me it will be  
24 viewable by the people who are looking on essentially  
25 their computer at home.



1           But this is generally the site at least as it's  
2 been expressed by the applicant laid over a topographic  
3 map, right?

4           MR. METRO: Right.

5           MR. LAMB: Is there anyway that we can kind of  
6 dim this, so that can you see that better, Mr. Meyer, this  
7 side.

8           PROJECT MANAGER MEYER: It will either dim or go  
9 either out, so I'll figure out how to get the right button  
10 here.

11          HEARING OFFICER KRAMER: Gloria, are you getting  
12 this on your computer?

13          MR. LAMB: Gloria is taking a bionap.

14          That is better.

15          HEARING OFFICER KRAMER: Let me just check with  
16 the WebEx folks at home.

17          I think I'm --

18          MR. LAMB: Yes, sir.

19          HEARING OFFICER KRAMER: Lorraine, are you seeing  
20 an exhibit on your screen?

21          MS. WHITE: Yeah, I am.

22          HEARING OFFICER KRAMER: Okay. Good, it's  
23 working.

24          MS. WHITE: No, no, I was just -- I forget I was  
25 mute. I kept talking to you. No, this is the one with

1 the orange and the green sections shaded?

2 HEARING OFFICER KRAMER: Yes. Thanks. I also  
3 note that Steve Allen is with us now if that matters.

4 MS. WHITE: Okay. Yeah, no, we see it just fine.

5 HEARING OFFICER KRAMER: Thank you.

6 Go ahead, Mr. Lamb.

7 MR. LAMB: Okay. Thank you, Mr. Kramer.

8 All right, so as we look at this and you can see  
9 as we start to enlarge it, this is what you'd referred to  
10 earlier that looks like lines, right?

11 MR. METRO: Right.

12 MR. LAMB: Right through here. And then can you  
13 describe for us, so that we can have an understanding,  
14 what the topographical features are here. And I don't  
15 know if it would be better actually for you to come up and  
16 point to this. We don't done have a mic to that.

17 MR. METRO: Those are washes.

18 MR. LAMB: What are washes?

19 MR. METRO: Those are the areas where the water  
20 tends to concentrate and --

21 MR. LAMB: Okay. So where I have the hand print  
22 right now, that shaded area is a wash.

23 MR. METRO: Yes. It's starting one.

24 MR. LAMB: This shaded area is a wash?

25 MR. METRO: Yes.

1 HEARING OFFICER KRAMER: Mr. Lamb, I think for  
2 the record you need to try to describe where these are.  
3 First of all, this document comes from where, from his  
4 testimony:

5 MR. LAMB: This document comes from taking a PDF  
6 that was provided by the applicant that shows the layout  
7 of the system, and then it's placed over the topographic  
8 map.

9 HEARING OFFICER KRAMER: So it's a new file.  
10 Does it have an exhibit number?

11 MR. LAMB: It was created by Mr. Metro for this  
12 purpose to demonstrate this.

13 HEARING OFFICER KRAMER: Does it have an exhibit  
14 number?

15 MR. LAMB: It will, 1214.

16 HEARING OFFICER KRAMER: Okay. Great. And so  
17 then because although the WebEx recording would be showing  
18 your mouse moving around, that's not going to be a part of  
19 the record if you ever tried to --

20 MR. LAMB: Well, I think I'm going to clarify it  
21 right here.

22 HEARING OFFICER KRAMER: Yeah, so if you can  
23 orally describe what you're doing by reference to new  
24 Exhibit 1214.

25 MR. LAMB: What we're doing to do here is we're

1 going to -- when it's blown up, if you look on this  
2 particular document, Exhibit 1214, it is essentially the  
3 eastern portion of the boundary, right underneath where it  
4 Sec 8, and it goes down to an apex, there is a circle  
5 there, which is an area that is protected, correct?

6 MR. METRO: Correct.

7 MR. LAMB: And then to the right of it flowing  
8 east and then to the north is a shaded area with the words  
9 wash in it, do you see that?

10 MR. METRO: Yes.

11 MR. LAMB: So all of the shaded areas like that  
12 on this topographic map then are washes, correct?

13 MR. METRO: Correct.

14 MR. LAMB: Okay. So as we see this, and there  
15 was a reference earlier by Mr. Patrick Jackson he wasn't  
16 testifying, but he basically stated that in his section  
17 NAP1, which is essentially right above where the proposed  
18 substation is, and to the left of the main services  
19 complex. Do you see that?

20 MR. METRO: Yes.

21 MR. LAMB: There's a wash that runs directly  
22 through his property and then goes right down through the  
23 green Phase 1 area of SunCatchers right down to the BNSF  
24 track, right?

25 MR. METRO: Right.

1           MR. LAMB: And that's the area of the wash that  
2 Mr. Jackson said, at least on his property and running  
3 into the Calico Solar project site, was in excess of 1 and  
4 a half feet deep, right?

5           MR. METRO: Right.

6           MR. LAMB: Okay. And then if you go over to the  
7 east more, there's coming down from the Cady Mountains,  
8 you see where it says wash here and there's some 5's.  
9 There's a couple fingers that down through the orange  
10 section, which is Section 6 of Phase 2, and they go down  
11 to Section 7 of Phase 1. Do you see that wash?

12          MR. METRO: Yes.

13          MR. LAMB: And then the other wash that we had  
14 described earlier, which goes to the lower portion of  
15 Sections 8 and 7, correct?

16          MR. METRO: Correct.

17          MR. LAMB: Okay. Now for frame of reference, as  
18 we blow this up, once we get up to 200 percent of this  
19 particular document, Exhibit 1214, you can start seeing  
20 the dots, right?

21          MR. METRO: Yes.

22          MR. LAMB: Okay, and then when we go up for frame  
23 of reference to 400 percent, it shows, for example, in  
24 relation to the wash from Mr. Jackson's property into the  
25 area that is the proposed area for the Calico Solar

1 Project adjacent to the proposed substation, that it shows  
2 these SunCatchers all throughout the wash, right?

3 MR. METRO: Right.

4 MR. LAMB: And it goes up to the environmentally  
5 sensitive or environmentally protective area and  
6 completely encircles it, right?

7 MR. METRO: Yes.

8 MR. LAMB: And it does likewise to the  
9 environmentally protected areas to include the one that's  
10 located in the wash to the far right or east?

11 MR. METRO: Yes

12 MR. LAMB: And if we blow this up to 800 percent,  
13 you can see all of these around, encircling this  
14 environmentally sensitive area, right?

15 MR. METRO: Right.

16 MR. LAMB: Now, there was originally, back in  
17 February, a detention basin just to the right of this  
18 environmentally sensitive area, right?

19 MR. METRO: Right.

20 MR. LAMB: It's not there now, right?

21 MR. METRO: Correct.

22 MR. LAMB: So now you've got this wash that's  
23 going to channelize the water as it flows, correct?

24 MR. METRO: Correct.

25 MR. LAMB: And you've got these SunCatchers that

1 are going from north to south vertically with in between  
2 every other row there's going to be a roadway, right?

3 MR. METRO: Right.

4 MR. LAMB: And what's going to be the impact of  
5 that on the channelization of the water surface?

6 MR. METRO: It will change it.

7 MR. LAMB: Excuse me?

8 MR. METRO: It will change the way it flows in.

9 MR. LAMB: In what way?

10 MR. METRO: Creating some scour, creating some  
11 movement around the SunCatchers, potentially pushing it on  
12 to that protected site.

13 MR. LAMB: Okay, potentially pushing it on to the  
14 environmentally sensitive area?

15 MR. METRO: Correct.

16 MR. LAMB: And then what would happen?

17 MR. METRO: It would cause scour, and --

18 MR. LAMB: When you say it would cause scour, it  
19 basically would wipe out the plant life?

20 MR. METRO: Potentially.

21 MR. LAMB: Now, do you see anywhere in this plan  
22 that it's supposed to show all the SunCatchers, other than  
23 around the environmentally sensitive area, any avoidance  
24 of what is referred to as washes or ephemeral streams?

25 MR. METRO: No.

1           MR. LAMB:   Okay, Mr. Miller.  You are David  
2 Miller, the same David Miller that prepared the direct --  
3 prepared direct testimony in written form that is going to  
4 be marked as Exhibit 1213, correct sir?

5           MS. MILLER:  Yes.

6           MR. LAMB:  And did you review it to make sure  
7 that to the best of your knowledge and information it is  
8 true and correct?

9           MS. MILLER:  Yes.

10          MR. LAMB:  And do you adopt it as your testimony  
11 here today, sir.

12          MS. MILLER:  Yes.

13          MR. LAMB:  Can you explain to the Commission what  
14 your role is?  You're a BNSF employee, right?

15          MR. MILLER:  Yes.

16          MR. LAMB:  For how many years, sir?

17          MS. MILLER:  Twenty-eight years.

18          MR. LAMB:  Okay.  And what's your job?

19          MS. MILLER:  My present job is managing  
20 construction work for the BNSF, working on new  
21 construction projects, track and bridges, as well as  
22 facilities.

23          MR. LAMB:  And you're an engineer.

24          MS. MILLER:  Yes.

25          MR. LAMB:  Now, Mr. Metro had referred to some of



1 the impacts to railroad rights of way as a result of  
2 flooding in alluvial plains. Do you have some personal  
3 experiences in that area?

4 MS. MILLER: Yes.

5 MR. LAMB: Okay. Can you explain to the  
6 Commission what you believe some of the impacts can be

7 MS. MILLER: Well, any time there's flooding that  
8 affects the railroad especially if the water gets out of  
9 the channels, and away from the bridges, we have a  
10 problem. We've had places where for one reason or another  
11 water left the channel that it traditionally took and came  
12 up against the railroad tracks, not at the bridge, and  
13 that water -- the railroad tracks or the embankment that  
14 we have is not really designed to be a dike. And so if  
15 that water flow comes up at some -- moves to another  
16 location other than where we have the bridge, it causes us  
17 some problems, can wash out the embankment or the tracks.

18 MR. LAMB: And if the embankment or the tracks  
19 are washed out, what happens?

20 MS. MILLER: Well, we have -- hopefully, we find  
21 it not with train, and we have practices where we attempt  
22 to find that, where we have a flash flood warning, we may  
23 stop train traffic and inspect areas if we observe that  
24 there's heavy rain in an area, we'll make inspections  
25 there.

1 MR. LAMB: And assuming that you do that and a  
2 train isn't on the tracks, but it still takes out the  
3 tracks, what's the potential impact, in terms of Service  
4 on that intercontinental rail?

5 MS. MILLER: It just depends on how long it is.  
6 We've had -- you know, it's hours at least if there's  
7 repairs required, it could be several days.

8 MR. LAMB: Okay. Now, you understand that there  
9 was a review that was done by Mr. Metro of essentially the  
10 history of the detention basins. And Mr. Weaver testified  
11 about it earlier today?

12 MS. MILLER: Yes.

13 MR. LAMB: And you understand that at some point  
14 in time in August, there was a decision made that BNSF  
15 really didn't question Calico Solar's hydrology witnesses  
16 at those hearings. Do you remember that?

17 MS. MILLER: Yes.

18 MR. LAMB: Can you explain to the Commission why  
19 that was?

20 MS. MILLER: Well, the BNSF people that were at  
21 those meetings had an understanding that there would be  
22 detention basins, and other measures taken to protect the  
23 BNSF. And our understanding was that, like Mr. Kramer  
24 said, there would be a standard of, you know, it's not  
25 going to be -- what happens to us now would be the same

1 thing that would happen to us after construction or during  
2 and after construction.

3 MR. LAMB: Okay. And you've heard the testimony  
4 of Mr. Weaver and of Mr. Hamilton and of Mr. Metro, and  
5 ultimately also of Dr. Chang. Has Dr. Chang's testimony  
6 alleviated your concerns in any way?

7 MS. MILLER: No. There's different opinions  
8 here, whether there's an effect or not, and what the right  
9 method of addressing that, if there is.

10 MR. LAMB: Okay. But is anything that Dr. Chang  
11 said or testified to given you assurances that there won't  
12 be a problem for the BNSF right of way?

13 MS. MILLER: No.

14 MR. LAMB: Now, in your opinion, given the recent  
15 change in alternatives which delete the debris and  
16 detention basins, and the current lack of a hydrological  
17 study to support those new alternatives, do you have  
18 sufficient information to analyze and grant Calico Solar's  
19 current request for access so that they can do work on the  
20 site?

21 MS. MILLER: No.

22 MR. LAMB: Why not?

23 MS. MILLER: Well, we just -- we don't know the  
24 effect of what they're doing on our property. And we just  
25 don't know what they're going to do for us.

1 MR. LAMB: And is there a historical basis for  
2 BNSF's concerns relating to heavy rainfall, flooding in  
3 the area of this project site?

4 MS. MILLER: We've not had a, what we could call,  
5 service interruption or other situation, track washed out  
6 you, bridge washed out, in this area that I know of. We  
7 have had, and like Mr. Metro said, evidence that the water  
8 observations from people that were out there, that the  
9 water was touching the girders of the bridge, touching the  
10 bridge structure.

11 MR. LAMB: So since 1919, no interruptions,  
12 right?

13 MS. MILLER: Not that I've seen a record of in  
14 this 6 miles or so there.

15 MR. LAMB: But essentially there is a historical  
16 record that it's pretty much gone to its capacity.

17 MS. MILLER: Right, if the water is touching the  
18 bridge beams, the girders, it's really reached its  
19 capacity or very close to it.

20 MR. LAMB: I don't have any further questions.

21 We'd obviously offer 1211, 1212, and 1213 in.  
22 And as far as 1214, we'd offer that in, and I can make  
23 sure that we get a copy sent up tomorrow or you can -- I  
24 can Email this whatever works for you Mr. Kramer.

25 HEARING OFFICER KRAMER: The sooner the better if

1 you could Email 1214.

2 MR. LAMB: Okay, we'll do.

3 HEARING OFFICER KRAMER: Okay. Well, we'll get  
4 to the admission of the exhibits at the end.

5 MR. LAMB: With that, I tender these witnesses  
6 for cross examination to the extent there is any

7 HEARING OFFICER KRAMER: Applicant?

8 MS. FOLEY GANNON: Thank you. A couple of  
9 questions.

10 CROSS-EXAMINATION

11 MS. FOLEY GANNON: Mr. Hamilton, you had  
12 testified earlier, I believe, that you said you have been  
13 involved in designing detention basins to operate in this  
14 type of desert environment, is that correct?

15 MR. HAMILTON: Flood control facilities,  
16 including detention basins.

17 MS. FOLEY GANNON: And you've been able to design  
18 them in a way that mimics the, I guess, you used the word  
19 Mother Nature as well, but that -- or that wasn't used in  
20 your question, but to mimic the natural conditions?

21 MR. HAMILTON: I only used it, because he asked  
22 me a question with it. What it does, the way it's  
23 generally approached is it's the opposite of what was done  
24 in the City of Los Angeles historically, where you would  
25 build basically a concrete dam, trap all the debris and

1 let the water flow out through a concrete channel.

2 This is something that it allows water and  
3 sediment both to move through the system. It's just you  
4 design it in a way that the water and the sediment goes  
5 through.

6 MS. FOLEY GANNON: And so when you're designing  
7 those, you would have performance standards in mind that  
8 you'd want to meet?

9 MR. HAMILTON: Yes.

10 MS. FOLEY GANNON: And those are, with your  
11 experience, you know what those types of performance  
12 standards are that would be appropriate for this type of  
13 desert environment?

14 MR. HAMILTON: Yes.

15 MS. FOLEY GANNON: And you could suggest those.  
16 And you could say this is the standard that you should  
17 design to, is that correct?

18 MR. HAMILTON: That's correct.

19 MS. FOLEY GANNON: And then a flood facility  
20 that's designed to meet those standards should be able to  
21 offset the impacts associated with the development?

22 MR. HAMILTON: The Calico Solar?

23 MS. FOLEY GANNON: In general.

24 MR. HAMILTON: Yeah, in general, of course.

25 MS. FOLEY GANNON: And you also testified that if

1 a project was going to meet -- like the Calico Solar, was  
2 going to meet the counties' rules and therefore also meet  
3 FEMA standards, then you would have comfort that they were  
4 going to build to a standard that was sufficient to  
5 address the hundred year flood control or the hundred year  
6 storm event, is that correct?

7 MR. HAMILTON: Yeah, I think -- what I said was,  
8 the idea that the water kind of spreads out over the  
9 alluvial fan, that that's not -- if you're obliged to  
10 follow FEMA standards and if you're a participating  
11 community in the flood insurance program, you are obliged  
12 to follow FEMA standards.

13 You have to look at it the way they say in their  
14 rules. And the rules say, you can't assume the water is  
15 going to spread out across the alluvial fan.

16 MS. FOLEY GANNON: So meeting those standards  
17 would be one way that you would have some assurance that  
18 you would have some comfort that it's going to be properly  
19 designed?

20 MR. HAMILTON: Yes.

21 MS. FOLEY GANNON: And you also testified that  
22 there's lots of different types of flood control,  
23 detention basins are one of them, is that right?

24 MR. HAMILTON: That's one method that's used,  
25 yes.

1 MS. FOLEY GANNON: It's one method, but it's not  
2 the only method.

3 MR. HAMILTON: There are many methods.

4 MS. FOLEY GANNON: So in looking at if a project  
5 is going to have adverse impacts, it's not necessarily  
6 that detention basins be specifically what's implemented  
7 in a project to address flood control issues, is that  
8 accurate?

9 MR. HAMILTON: I'm not sure I understand your  
10 question.

11 MS. FOLEY GANNON: You said that there's been a  
12 number of questions that have led to -- or imply that  
13 somehow detention basins are necessary on the Calico  
14 project to address the potential impacts associated with  
15 building this project.

16 And I was interested to hear you say that when  
17 you're talking about flood control measures, you're not  
18 talking necessarily just about detention basins. You were  
19 saying that there was several different avenues that can  
20 be used different recipes that you can use to address the  
21 issues.

22 Is that an accurate -- did I understand what you  
23 were testifying to correctly?

24 MR. HAMILTON: Yes, that's accurate.

25 MS. FOLEY GANNON: Thank you.



1           And when you were talking about the effect of  
2 these impermeable umbrellas or the SunCatchers, and it was  
3 the -- I can't remember which -- right -- you were asked a  
4 question about impermeable umbrellas, and I just wanted to  
5 ask -- have you seen a SunCatcher?

6           MR. HAMILTON: I saw the video.

7           MS. FOLEY GANNON: And do you know that they're  
8 actually like -- the individual mirrors are actually not  
9 bound together. So that if rain is falling on the back,  
10 that the rain is actually going to fall through the  
11 individual mirrors.

12           So it's not like an umbrella that's actually  
13 going to be pushing it off, you know, around the rim. The  
14 water is -- it's permeable, so the water will be going  
15 through the surface when it's in the stove position.

16           MR. HAMILTON: The solar panels are permeable?

17           MS. FOLEY GANNON: Right, because they're  
18 individual mirrors. So there's mirrors there that the  
19 water can be falling through. It's not a solid surface.

20           MR. HAMILTON: The water flows through the  
21 individual mirrored panel itself?

22           MS. FOLEY GANNON: Around them, so there are lots  
23 of little mirrors.

24           MR. HAMILTON: So what happens to the rain that  
25 hits the actual mirror?

1 MS. FOLEY GANNON: Well, it would go between the  
2 cracks. So there will be some deviation, but it's not a  
3 38-foot umbrella out there.

4 MR. HAMILTON: And I said that in my testimony.

5 MS. FOLEY GANNON: Okay. So I just wanted to  
6 say, so you recognize though that this is not a 38 foot or  
7 40 foot impermeable surface that's going to be, you know,  
8 directing the water all the way around it?

9 MR. HAMILTON: I understand all of that and I  
10 still think it's a problem.

11 MS. FOLEY GANNON: Okay. And again, but that's  
12 something you've actually studied or analyzed in any way?

13 MR. HAMILTON: Not specifically for these  
14 SunCatchers.

15 MS. FOLEY GANNON: Okay.

16 MR. HAMILTON: But I have studied the effects of  
17 various types of impermeable surface and other  
18 construction in the desert.

19 MS. FOLEY GANNON: On something similar to a  
20 SunCatcher?

21 MR. HAMILTON: No.

22 MS. FOLEY GANNON: Okay, thanks.

23 Mr. Metro, one question for you. You've said  
24 that under existing conditions, you've analyzed this site  
25 and these crossings. And that your analysis shows that,

1 other current existing conditions, the hundred year storm  
2 can pass through without doing damage to the railroad, is  
3 that correct?

4 MR. METRO: Correct.

5 MS. FOLEY GANNON: So you have a pretty good idea  
6 about the standards that have to be met to be able to --  
7 to make sure that the water can move through. So you've  
8 looked at this. So you have performance standards in  
9 place that you know, when you look at your analysis, you  
10 thought, if it had met these performance standards, I know  
11 that the train -- these tracks will not be damaged by a  
12 hundred year storm event, is that correct?

13 MR. METRO: Correct.

14 MS. FOLEY GANNON: So that those standards were  
15 met post-development of the Calico project, then the  
16 railroad shouldn't be damaged, is that correct?

17 MR. METRO: That is correct. And that's what  
18 I'll be looking for in both conditions.

19 MS. FOLEY GANNON: And you know what you're  
20 looking for then, right?

21 MR. METRO: Right.

22 MS. FOLEY GANNON: Okay. I think that's all my  
23 questions for these witnesses.

24 Thank you.

25 HEARING OFFICER KRAMER: Staff.

## 1 CROSS-EXAMINATION

2 STAFF COUNSEL ADAMS: Just a question or two for  
3 Mr. Metro.

4 I believe you testified that the scour effect  
5 would destroy the environmentally sensitive areas,  
6 including the one shown on the screen right now, is that  
7 accurate?

8 MR. METRO: If the channel or the wash hydraulics  
9 were changed, and it would push the water over to it, it  
10 could potentially do that, I believe is what I said.

11 STAFF COUNSEL ADAMS: So your testimony is that  
12 there's a potential for it to destroy it or damage it?

13 MR. METRO: It would need to be analyzed during  
14 detailed design.

15 STAFF COUNSEL ADAMS: Okay. I had understood  
16 your statement to be more definitive than that. Are you  
17 familiar with the Whitemargin Beardtongue and what its  
18 tolerances are for flooding and --

19 MR. METRO: I'm not.

20 STAFF COUNSEL ADAMS: Thank you.

21 No further questions.

22 HEARING OFFICER KRAMER: Any of the intervenors?

23 MS. MILES: No questions from CURE.

24 MR. BASOFIN: No questions from Defenders.

25 MR. RITCHIE: (Shakes head.)

1 HEARING OFFICER KRAMER: Mr. Ritchie shakes his  
2 head no.

3 On the telephone?

4 Any redirect?

5 We'll let Commissioner Eggert go first and there  
6 maybe some redirect.

7 PRESIDING MEMBER EGGERT: Actually, just one  
8 question, and I appreciate your participation here. This  
9 is a question for Mr. Hamilton. I find your testimony to  
10 be quite informative. This is similar to a question that  
11 Ms. Gannon asked. It has to do with, you said there's  
12 sort of an evolving -- I'm going to try to paraphrase, but  
13 you said it's sort of an evolving science with respect to  
14 management of the flow. And I think you were suggesting  
15 that there's even a movement away from things like  
16 detention basins to try to accommodate a more natural  
17 system of flow of the sediment. I'm wondering if you  
18 could just expand upon that for just a brief minute

19 MR. HAMILTON: Of course. And it's not -- I  
20 wouldn't say that the science is evolving that much, but  
21 the use of methods that you can control floods and can  
22 have multiple other purposes. For example, the one  
23 project I worked on in Riverside County, there's actually  
24 a golf course in this channel, very large channel. And it  
25 floods infrequently, so most of the time you can play golf

1 there.

2 But so they were able to use the same land for  
3 flood protection and for recreation, and that's sort of  
4 this multipurpose approach to flood control is becoming  
5 much more common. And then especially in areas where you  
6 have to be not -- it's not like the old days where you can  
7 build a debris basin in the mountains, and then you have  
8 the Los Angeles River going all the way to the sea. And  
9 then once -- you can. Nobody does that anymore, and  
10 that's the problem with detention basins out in the middle  
11 of the desert, is when the water eventually leaves the  
12 basin, and maybe it goes through a channel for awhile.  
13 But at some point, it's going to go back out on the desert  
14 floor, and could cause erosion, so that's sort of what I  
15 was referring to.

16 PRESIDING MEMBER EGGERT: And then the other  
17 question is just as a fellow Aggie, I have to -- what  
18 department did you do your studies in?

19 MR. HAMILTON: Civil Engineering

20 PRESIDING MEMBER EGGERT: Excellent degree.

21 (Laughter.)

22 PRESIDING MEMBER EGGERT: That's a good program.  
23 I'm not biased at all.

24 (Laughter.)

25 PRESIDING MEMBER EGGERT: Thank you very much.

1 HEARING OFFICER KRAMER: Redirect, Mr. Lamb.

2 MR. LAMB: No, sir. Thank you.

3 HEARING OFFICER KRAMER: Okay. Our court  
4 reporter has been working hard. I think in his honor, we  
5 can take a break.

6 Let's try for 10 minutes. Be back here at 10:20  
7 (Thereupon a recess was taken.)

8 PRESIDING MEMBER EGGERT: Okay. Is our court  
9 reporter well rested?

10 This is quite a marathon session.

11 HEARING OFFICER KRAMER: Mr. Adams.

12 STAFF COUNSEL ADAMS: Yes.

13 HEARING OFFICER KRAMER: Are we back on the  
14 record?

15 Do you want to identify if your cultural  
16 witnesses are on the -- you're, of course, certifying to  
17 us that this will only take a few minutes, right, or was  
18 that Mr. Meyer, who has conveniently left?

19 STAFF COUNSEL ADAMS: I think he's the one that  
20 offers the guarantee, yeah.

21 Ms. Allred, are you available on line on the  
22 phone?

23 MS. ALLRED: Yes. Hello, I'm here. Can you hear  
24 me?

25 STAFF COUNSEL ADAMS: Great. This is -- could

1 you identify yourself and spell your last name.

2 MS. ALLRED: Yes. Sarah, A-l-l-r-e-d.

3 STAFF COUNSEL ADAMS: Sarah. Is it S-a-r-a-h?

4 MS. ALLRED: Yes.

5 HEARING OFFICER KRAMER: I can't recall if she's  
6 been sworn before.

7 PROJECT MANAGER MEYER: Yes, she has.

8 HEARING OFFICER KRAMER: Okay. So we're on  
9 Cultural Resources now.

10 Go ahead.

11 MS. MILES: Excuse me, Hearing Officer Kramer?

12 I asked for a couple minutes notice. I didn't  
13 realize we were coming straight to Cultural Resources as  
14 soon as we finished the break.

15 HEARING OFFICER KRAMER: Can you make your call?

16 MS. MILES: Yeah, can I make a quick phone call.

17 HEARING OFFICER KRAMER: And that's to Mr.  
18 Whitley?

19 MS. MILES: Yes.

20 HEARING OFFICER KRAMER: Does he need to hear  
21 what she's saying?

22 MS. MILES: Yes. That it wouldn't that it  
23 wouldn't

24 MR. WHITLEY: This is David Whitley I'm on the  
25 line.



1 HEARING OFFICER KRAMER: Okay. Mr. Adams, go  
2 ahead.

3 Whereupon,

4 SARAH ALLRED  
5 was previously sworn and testified as follows:

6 STAFF COUNSEL ADAMS: Well, Ms. Allred has no  
7 additional written testimony, but my understanding is that  
8 the intervenors are interested in an update on where  
9 things stand with cultural. So if that's the case, I'd  
10 just ask Ms. Allred to update us on what's happened since  
11 the 25th.

12 MS. ALLRED: Yes. Well, I received an invitation  
13 from the BLM for a programmatic agreement meeting on this  
14 Friday, I can't remember the date. But this coming Friday  
15 is a meeting to discuss the monitoring agreements and the  
16 historic properties treatment plan.

17 HEARING OFFICER KRAMER: Do you have any idea how  
18 far along that process is?

19 MS. ALLRED: Well, we received a final draft from  
20 the BLM about 10 days ago and we submitted comments on the  
21 draft Programmatic Agreement on September 17th.

22 HEARING OFFICER KRAMER: And do you know when the  
23 BLM is planning on finalizing the Programmatic Agreement?

24 MS. ALLRED: You know, I do not.

25 HEARING OFFICER KRAMER: But is it still the case

1 that it's a pre-requisite to the issuance of the ROD and  
2 the right of way permit?

3 MS. ALLRED: I believe so, yes.

4 HEARING OFFICER KRAMER: Okay. Has anything that  
5 you've learned since the last hearing caused you to want  
6 to modify any of your proposed conditions?

7 MS. ALLRED: No.

8 HEARING OFFICER KRAMER: Thank you.

9 Ms. Miles.

10 MS. MILES: Just a point of order. I did have  
11 some questions for Rachael Nixon based on her testimony  
12 submitted by the applicant. And I wondered --

13 MS. FOLEY GANNON: She is available and on the  
14 telephone if you would like to direct corrections to her  
15 when you're finished with staff.

16 MS. MILES: Should I proceed with questioning  
17 staff, first?

18 HEARING OFFICER KRAMER: Please.

19 CROSS-EXAMINATION

20 BY MS. MILES: So can you please tell me how many  
21 archaeological sites will be impacted by either of the two  
22 new proposed scenarios?

23 MS. ALLRED: Is this a question for me or  
24 Rachael?

25 MS. MILES: It's a question for you, Ms. Allred.

1 MS. ALLRED: Okay, I'm sorry. Its approximately  
2 a hundred as far as I can tell.

3 MS. MILES: So the proposed project scenarios, in  
4 other words, will not significantly reduce the impacts to  
5 the archaeological sites, is that correct?

6 MS. ALLRED: Correct, yes.

7 MS. MILES: And the Staff Assessment stated that  
8 subsurface testing is required to determine the  
9 eligibility and significance of the project sites, is that  
10 correct?

11 MS. ALLRED: Yes.

12 MS. MILES: And the Energy Commission staff  
13 reiterate this point in the last week's comments on the  
14 BLM's proposed eligibility determinations, is that  
15 correct?

16 MS. ALLRED: Yes.

17 MS. MILES: And according to your Staff  
18 Assessment, you stated that some degree of testing is  
19 standard archaeological practice, even for sparse lithic  
20 scatters, is that correct?

21 MS. ALLRED: I believe so, yes.

22 MS. MILES: And a sparse lithic scatter is a  
23 specific type of archaeological site, one that's been  
24 defined by the Office of Historic Preservation's as  
25 CARIDAP procedure, is that correct?

1 MS. ALLRED: Yes.

2 MS. MILES: According to the Office of Historic  
3 Preservation's procedure, one of the defining  
4 characteristics of a sparse lithic scatter as a site type,  
5 is the absence of a subsurface deposit; is that correct?

6 MS. ALLRED: Well, that can be. You don't know  
7 that until you conduct testing.

8 MS. MILES: So if you conduct testing and you  
9 determine that there is a subsurface component would you  
10 still characterize it as a sparse lithic scatter?

11 MS. ALLRED: Well, it could still be a sparse  
12 lithic scatter, I guess. And not in the definition of the  
13 CARIDAP program.

14 MS. MILES: And according to you -- to the Staff,  
15 some degree of subsurface testing is standard practice  
16 even for these small sites, is that correct?

17 MS. ALLRED: Yes, I would say that some degree of  
18 testing is relatively standard.

19 MS. MILES: And that's to determine whether they  
20 have subsurface deposits.

21 MS. ALLRED: Yes. Or some sort of information.

22 MS. MILES: So in other words to determine  
23 whether a site has the characteristics that define the  
24 sparse lithic scatter site type, some degree' of testing  
25 will be required.

1 MS. ALLRED: Yes.

2 MS. MILES: Thank you. So the proposed  
3 Conditions of Certification require that 20 percent of  
4 each of the defined site types within the project area of  
5 potential impacts be excavated, is that correct?

6 MS. ALLRED: I'm sorry. Could you repeat that.

7 MS. MILES: Sure. The proposed Conditions of  
8 Certification require that 20 percent of each of the  
9 defined site types within the project Area of Potential  
10 Effect would be excavated, is that correct?

11 MS. ALLRED: What said that? I'm sorry, you said  
12 the Conditions of Certification require?

13 MS. MILES: That 20 percent of each of the  
14 defining --

15 MS. ALLRED: Oh. I'm sorry. I'm not sure that  
16 it says that.

17 MS. MILES: So does it specify a percentage of  
18 the site types of each of the defined site tapes that  
19 would be where there would be some excavation?

20 MS. ALLRED: You know, I don't have the  
21 conditions in front of me. And I don't know if they  
22 specifically say that language.

23 MS. MILES: Okay. Sorry. Just one moment. I  
24 have piles of papers here. I'm trying to find the most  
25 recent Staff Assessment.

1 MS. ALLRED: I'm sorry. I will try to grab my  
2 copy as well.

3 MS. MILES: Okay, thank you.

4 MS. ALLRED: And I guess I'm just trying to  
5 understand what you're asking. So forgive me at this  
6 hour.

7 MS. MILES: I completely understand.

8 MS. ALLRED: Okay. And which condition are you  
9 referring to?

10 MS. MILES: I'm trying to find it myself  
11 actually.

12 MS. ALLRED: Because it's the CUL 4 condition  
13 that dealt with the cultural resources. And it has been  
14 modified, you know, based on the last hearing. And I only  
15 have the old version, but it was consistent with our  
16 agreement with the BLM and the SHPO for the treatment of  
17 the archaeological resources.

18 MS. MILES: So you don't recall that there was  
19 going to be a 20 percent testing that was agreed to  
20 between staff and the applicant of the site types?

21 MS. ALLRED: I'm afraid I don't.

22 MS. MILES: Okay. Well, I'm sorry. I didn't  
23 actually bring the Staff Assessment with me. So my  
24 colleague is looking it up right now to tell you the exact  
25 Condition of Certification so I can read the language.

1 MS. ALLRED: Okay. And is it the language that  
2 was modified after the last hearing?

3 MS. MILES: That's correct.

4 HEARING OFFICER KRAMER: I think that might be  
5 Exhibit 312.

6 MS. ALLRED: Yes. And forgive me, because Mike  
7 McGuirt wrote the condition, and modified it subsequently.  
8 So I'm afraid I'm just not as familiar with it.

9 HEARING OFFICER KRAMER: I can put it up on the  
10 screen, I think.

11 MS. ALLRED: That would be wonderful.

12 HEARING OFFICER KRAMER: Christopher, can you get  
13 the lights down. And it looks like this is inserted into  
14 the version that was in the Supplemental Staff Assessment  
15 Part 2. Does that sound right, Christopher?

16 MS. FOLEY GANNON: I think the other language is  
17 earlier in the condition than that though.

18 HEARING OFFICER KRAMER: It says, "At the end  
19 prior to the verification". Let me get this -- let me see  
20 how long it is and get it on the screen better.

21 MS. MILES: Ms. Allred, are you on WebEx? Can  
22 you see this screen?

23 MS. ALLRED: No, I am not. I'm sorry.

24 MS. MILES: Okay.

25 HEARING OFFICER KRAMER: Now, this just the

1 language that makes the Programmatic Agreement take effect  
2 over the conditions.

3 MS. MILES: Yeah, this is different.

4 MS. ALLRED: And I believe that's --

5 MS. FOLEY GANNON: We have the 20 percent  
6 language in the conditions that we attached to our brief,  
7 which was submitted on 8-26. I can read you what the  
8 language that we put in that we said was agreed to.  
9 Again, it was an attachment to our briefs. So I don't  
10 have -- there's no exhibit number, but I can read the  
11 language. We had -- it was inserted into the Cul 4, and  
12 it said, "A field methodology will include in each  
13 protocol which outlines a representative sample of 20  
14 percent of each of the site types, which would be selected  
15 for further evaluation. Ground disturbance on or in the  
16 vicinity of the sites selected for evaluation may not  
17 commence until the evaluation reports have been completed.  
18 Ground disturbance may begin on portions of the project  
19 area which do not contain sites selected for further  
20 evaluation, subject to the construct monitoring provisions  
21 of Cul 9."

22 And then there was the language that you had up  
23 there, which says if a PA is adopted, this may not be  
24 followed.

25 MS. MILES: So Ms. Allred, did you catch the



1 relevant portion of that --

2 MS. ALLRED: I believe so.

3 MS. MILES: -- to the 20 percent of each site  
4 type?

5 MS. ALLRED: Yes.

6 MS. MILES: Okay. So I'll ask the question  
7 again. In other words, site types will be determined  
8 before testing, and then 20 percent of each site type will  
9 be excavated, is that correct?

10 MS. ALLRED: Yes.

11 MS. MILES: Yet as the staff has repeatedly  
12 stated, some degree of testing is required, for example,  
13 to determine whether a site qualifies as a sparse lithic  
14 scatter site type, is that correct?

15 MS. ALLRED: Well, the nature of the  
16 archaeological resource out there, in my opinion, is that  
17 this is not just a collection of sparse lithic scatters,  
18 it's a pavement quarry of lithic extraction sites. And so  
19 I believe it would be appropriate to -- and this is based  
20 on my review of the literature and researching pavement  
21 quarries is to look at the more concentrated areas of this  
22 lithic extraction area, because they do have a tendency  
23 for redundancy. And their -- but yet there are -- there  
24 are concentrations where more information is available.  
25 And so, in this case, I don't think the whole CARIDAP

1 Program would apply, because that's maybe targeting just  
2 the sparse lithic scatter without taking into  
3 consideration that it's a lithic extraction area.

4 Does that make sense?

5 MS. MILES: Okay. So it's your testimony that  
6 the CARIDAP Program only applies to sparse lithic scatters  
7 and not to lithic extraction areas?

8 MS. ALLRED: No, no, no. I'm not necessarily  
9 saying that. I'm just saying that taking into  
10 consideration the nature of this type of resource, I don't  
11 believe it's necessary that they would have to excavate  
12 every inch of every site. That it's appropriate to take a  
13 sample of the site where concentrations do occur.

14 MS. MILES: Okay, but is testing required to  
15 determine whether a site is or is not a sparse lithic  
16 scatter?

17 MS. ALLRED: Well, you know, according to the  
18 CARIDAP Program, I believe they identified -- and I don't  
19 have it in front of me, but there's a certain amount of  
20 lakes per square area to qualify for this certain CARIDAP  
21 method or approach to sampling archaeological sites. And  
22 in a lot of cases, I would think that the sites in this  
23 project area may not necessarily qualify, because it has  
24 to have only a certain amount of debitage, or debris  
25 flakes, no forms stool, no other types of artifacts or

1 materials to qualify as a sparse lithic scatter, suitable  
2 for application of the CARIDAP Program.

3 MS. MILES: Well, what I'm trying to get at is  
4 what is going to happen to the 80 percent of the sites of  
5 a specific site type?

6 MS. ALLRED: Perhaps ask that again. I'm sorry,  
7 what's going to happen to --

8 MS. MILES: I'm trying to get at what's likely to  
9 happen to the other 80 percent of the sites of a specific  
10 site type.

11 So if you're testing 20 percent of a type of a  
12 site, of a specific site type that's present on the  
13 project, then what's going to happen to the other 80  
14 percent of the sites of a specific site type?

15 MS. ALLRED: Well, presumably what they've  
16 selected as the 20 percent are those sites that contain  
17 greater concentrations suitable for testing. And those  
18 that are perhaps more sparse, and less likely to yield  
19 important information would be impacted by the project and  
20 not further studied. However, they've been documented.

21 MS. MILES: So according to the conditions,  
22 there's no requirement that the 80 percent of the sites  
23 within each site type would receive any testing or  
24 excavation, is that correct?

25 MS. ALLRED: Yes, I believe so.

1 MS. MILES: And so the conditions would allow  
2 then for the destruction of the 80 percent of the sites  
3 within each site type, with, for example, heavy equipment  
4 that's used for the construction process with the  
5 archaeological monitoring being the only safeguard, is  
6 that correct?

7 MS. ALLRED: Yes.

8 MS. MILES: So if there was a probability that  
9 untested sites might contain, for example, human remains  
10 or significant artifacts, though you wouldn't know,  
11 because you haven't tested -- done subsurface testing  
12 there. The only safeguard for these sites would be  
13 monitoring during grading, is that correct?

14 MS. ALLRED: Yes.

15 MS. MILES: Ms. Allred?

16 MS. ALLRED: Yes.

17 MS. MILES: I'm sorry, I couldn't hear any  
18 response.

19 MS. ALLRED: Oh, I just said yes. And, you know,  
20 I suppose I would qualify it with, you know, the  
21 likelihood of encountering something like burials out  
22 there is very low. They did conduct -- I mean, first of  
23 all, it says lithic extraction site on, you know, desert  
24 pavement of. So the likelihood of encountering burials is  
25 very slim to none.

1 MS. MILES: Is it standard archaeological  
2 practice to only require monitoring during grading for  
3 sites that have not been tested?

4 MS. ALLRED: Can you repeat the question, please.

5 MS. MILES: Is it standard archaeological  
6 practice to require only monitoring during grading for  
7 sites that have not been tested?

8 MS. ALLRED: I suppose monitoring, yes. I  
9 suppose so.

10 MS. MILES: Now, the archaeological conditions  
11 require approval by the BLM, is that correct?

12 MS. ALLRED: Our conditions? You mean the Energy  
13 Commission's conditions?

14 MS. MILES: Yes.

15 MS. ALLRED: I don't believe so.

16 MS. MILES: The BLM is the site owner, is that  
17 correct?

18 MS. ALLRED: Oh, yes. You mean, whether or not  
19 we would be able to implement a testing program?

20 MS. MILES: Yes.

21 MS. ALLRED: Your question was -- I'm sorry,  
22 repeat it, please.

23 MS. MILES: No problem. The archaeological  
24 conditions require approval by the BLM, is that correct?

25 MS. ALLRED: The archaeological conditions?

1 MS. MILES: So the conditions that you have  
2 placed on the project, the Conditions of Certification for  
3 archaeological resources.

4 MS. ALLRED: Well, I don't think the BLM approves  
5 our conditions, but they might approve a condition -- I  
6 mean -- I mean, for us to conduct testing on their land.

7 MS. MILES: So --

8 MS. ALLRED: Is that what you mean?

9 MS. MILES: So the Energy Commission has not  
10 received the BLM's approval for these archaeological  
11 conditions?

12 MS. ALLRED: I guess I'm just not understanding  
13 what you're saying.

14 MS. MILES: I'm trying to get a sense of whether  
15 the Energy Commission has been authorized to have these  
16 conditions to carryout these conditions since the BLM is  
17 the project owner and has clearly exercised their  
18 authority over what will happen on their land with regard  
19 to Cultural Resources.

20 MS. ALLRED: Oh, okay. Well, you know, my  
21 understanding -- and maybe Christopher can speak to this  
22 more, but my understanding is that we've been told that we  
23 may implement a testing program if we would like to.

24 MS. MILES: Okay. So it's my understanding, and  
25 please tell me if this is correct, that the conditions

1 will only apply instead -- they will only apply if the  
2 Programmatic Agreement is not signed and implemented, is  
3 that correct?

4 MS. ALLRED: Yes.

5 MS. MILES: So in that case, the Programmatic  
6 Agreement would replace the conditions?

7 MS. ALLRED: Cul 4.

8 HEARING OFFICER KRAMER: So do you know what the  
9 PA will require, the Programmatic Agreement, will require  
10 in terms of site testing?

11 MS. ALLRED: No. We are working on the  
12 development of that now, but the draft is available.

13 MS. MILES: Based on the draft, which will be  
14 required for site testing?

15 MS. ALLRED: Well, it's not complete yet.

16 MS. MILES: So can you tell me what will be  
17 required in terms of site testing in the incomplete draft  
18 PA?

19 MS. ALLRED: No, I cannot at this time.

20 MS. MILES: Is that because you can't recall at  
21 the moment or because you do not have that information?

22 MS. ALLRED: Well, no, I don't have that  
23 information, where we are supposed to meet and discuss.

24 MS. MILES: And do you know what the PA will  
25 require in terms of data recovery?

1 MS. ALLRED: They have some, you know, a place  
2 holder in the PA that discusses some performance criteria.

3 MS. MILES: So is it fair to say that the PA is  
4 very tentative at this point?

5 MS. ALLRED: I guess so because -- and maybe not  
6 because the PA is tentative, but my knowledge of it is  
7 very tentative at this moment.

8 MS. MILES: Okay. The BLM previously determined  
9 that over 100 archaeological sites were not eligible or  
10 significant on the project site without conducting  
11 subsurface testing, is that correct?

12 MS. ALLRED: I'm sorry, say that one more time.

13 MS. MILES: The BLM previously lousy determined  
14 that over a hundred archaeological sites, on the project  
15 site, were not eligible or significant and they did not  
16 conduct subsurface testing in making that determination,  
17 is that correct?

18 MS. ALLRED: Yes.

19 MS. MILES: And the California SHPO, State  
20 Historic Preservation Office, failed to concur with the  
21 BLM's eligibility determinations and asked for some kind  
22 of subsurface testing, is that correct?

23 MS. ALLRED: Well, they -- I guess so. They  
24 didn't agree, but they didn't disagree --

25 MS. MILES: Right, so they failed to concur.



1 MS. ALLRED: -- according to their letter. Yeah,  
2 so I suppose they did not provide concurrence.

3 MS. MILES: And the Energy Commission staff has  
4 also disagreed with the BLM determinations, and argued  
5 that some degree of subsurface testing should occur before  
6 the eligibilities of the sites are determined, is that  
7 correct?

8 MS. ALLRED: Yes.

9 MS. MILES: Would you say it's correct that the  
10 BLM's eligibility determinations might represent an error  
11 in professional judgment, in light of the fact that the  
12 SHPO and Energy Commission staff did not concur with their  
13 determinations?

14 PROJECT MANAGER MEYER: Sarah, do you want me to  
15 handle that, because that was something that we discussed,  
16 I think, at both the workshop and the last hearing quite  
17 extensively, where staff was very clear that we had a  
18 difference of professional opinion, but we did not go  
19 beyond that, in any characterization of the BLM  
20 eligibility determination

21 MS. MILES: Okay.

22 MS. ALLRED: Thank you.

23 MS. MILES: Ms. Allred, do you know the BLM will  
24 require testing in the Programmatic Agreement?

25 MS. ALLRED: Yes.

1 MS. MILES: And so it's your testimony that the  
2 outcome of the consultation process is predetermined with  
3 regard to testing?

4 MS. ALLRED: Well, we are trying to work together  
5 with all of the parties on the PA to come to an agreement  
6 as to how the testing, you know, will occur.

7 MS. MILES: And so on what do you base your  
8 testimony that the BLM will require testing in the PA?

9 MS. ALLRED: Well, we are invited signatories to  
10 the PA, and we are going to participate in meetings to  
11 discuss with them how best to carry out this testing, and,  
12 you know, through the Programmatic Agreement to meet the  
13 intent of the Cul 4 condition.

14 MS. MILES: Is there any possibility that the PA  
15 could result in an outcome that would not require testing?

16 MS. ALLRED: I don't know, but if it did not, I  
17 believe we would just result to the Cul 4 condition.

18 MS. MILES: Would you have the authority to do  
19 that under the language currently in the Conditions of  
20 Certification that have been agreed to by staff and the  
21 applicant?

22 MS. ALLRED: You know, I think so.

23 MS. MILES: So is it your testimony that, at any  
24 time, if you believe the applicant is not -- or I'm sorry,  
25 that the conditions that would be required in the PA or

1 the mitigation required in the PA would not meet Energy  
2 Commission standards, that the Energy Commission could  
3 require the applicant to instead comply with the Energy  
4 Commission's Conditions of Certification.

5 MS. ALLRED: I guess I'm not entirely confident,  
6 I don't know, but that was my understanding. Sorry for  
7 not being more knowledgeable.

8 MS. MILES: If you learned that the Programmatic  
9 Agreement would control once it was signed and that the  
10 Energy Commission's Conditions of Certification would then  
11 no longer apply, would you be concerned -- more concerned  
12 regarding the Energy Commission's authority over the  
13 outcome of the Programmatic Agreement process.

14 MS. ALLRED: Say that again.

15 MS. MILES: I'm not sure I can.

16 MS. ALLRED: I'm sorry. Would I be concerned --

17 MS. MILES: So if the Programmatic Agreement --  
18 if you learned that the Programmatic Agreement was  
19 drafted -- or, I'm sorry, if you learned that the  
20 Energy --

21 MS. ALLRED: Oh, if it didn't include the  
22 testing --

23 MS. MILES: Yes.

24 MS. ALLRED: -- would I be concerned over our  
25 authority, is that what you said?

1 MS. MILES: Would you be concerned then that the  
2 project wouldn't necessarily meet the requirements of  
3 CEQA?

4 MS. ALLRED: Well, I have to say yes.

5 MS. MILES: Thank you.

6 If the Programmatic Agreement does require  
7 testing, do you know what type of testing will be  
8 involved?

9 MS. ALLRED: If the Programmatic Agreement --

10 MS. MILES: Required testing, yes.

11 MS. ALLRED: -- requires testing, do I know --

12 MS. MILES: What is the type of testing that  
13 would be involved?

14 MS. ALLRED: Well, I've provided my  
15 recommendations in my comments to the PA that were  
16 docketed on the 17th. Did you happen to see that?

17 MS. MILES: I did.

18 MS. ALLRED: Okay. And that is part of what we  
19 will be discussing in the development of the PA and the  
20 various plans.

21 MS. MILES: And do you have any confirmation from  
22 the BLM that that -- that your recommendation will be  
23 accepted?

24 MS. ALLRED: Well, just discussions with BLM  
25 staff that we're -- you know, we want to work together to

1 come up with the best approach.

2 HEARING OFFICER KRAMER: Ms. Miles, if you're  
3 concerned about what the BLM is going to require, would it  
4 be more effective and efficient to take this up with them  
5 rather than with somebody who has no authority over the  
6 BLM?

7 MS. MILES: I understand she has no authority  
8 over the BLM, but --

9 HEARING OFFICER KRAMER: Well, and this Committee  
10 actually.

11 MS MILES: -- I'm just concerned about what the  
12 Energy Commission's role is with regard to CEQA, and  
13 whether the Programmatic Agreement is actually going to  
14 meet all of the requirements of CEQA, in terms of  
15 protecting cultural resources and what the Energy  
16 Commission needs to do in that respect. So that's why I'm  
17 probing, because the Energy Commission potentially is  
18 ceding their authority to mitigate or develop the  
19 mitigation strategy for these impacts to the BLM. And the  
20 BLM has a whole different mandate. The BLM actually has  
21 the mandate under the National Historic Preservation Act  
22 and their own regulations and not CEQA. So I'm coming to  
23 the end of my questions. If you wouldn't mind, I'll just  
24 complete them.

25 The Energy Commission as the signatory under the

1 Section 106 process would not have the authority to  
2 require a certain mitigation methodology for instance, is  
3 that your understanding?

4 MS. ALLRED: I believe so.

5 MS. MILES: So if the Energy Commission requested  
6 avoidance, for example, would the BLM have the authority  
7 to override the Energy Commission's objection?

8 MS. ALLRED: I believe they would.

9 MS. MILES: So if the BLM gets a new idea on  
10 testing or mitigation how that should be done, is there  
11 anything stopping the BLM from requiring that strategy  
12 once the project is approved?

13 MS. ALLRED: I don't think so.

14 MS. MILES: Will the Energy Commission have any  
15 final decision-making authority over the implementation of  
16 the PA?

17 PROJECT MANAGER MEYER: Maybe -- I think this is  
18 sort of getting beyond archaeology and is getting into  
19 policy issues between the BLM and the Energy Commission  
20 that are beyond what Sarah can testify to.

21 HEARING OFFICER KRAMER: It does sound like it is  
22 drifting in that direction. I'll note that the language  
23 about when the PA takes over, so to speak, in Exhibit 312  
24 does have a condition that the PA has to quote provide for  
25 the collection of factual evidence sufficient to

1 substantiate the evaluation of the California Register of  
2 Historical Resources eligibility of those potentially -- I  
3 think it should be affected but it says effected  
4 archaeological resources as determined by the CPM.

5           So I suppose there, if the CPM finds that there  
6 is not enough information, which might be testing in your  
7 example, that may perhaps the substitution, if you will,  
8 of programs might not occur.

9           MS. MILES: I'm not sure that's explicit.  
10 Perhaps that could be stated much more clearly.

11           PROJECT MANAGER MEYER: There was quite a bit of  
12 discussion in this last hearing where we -- if everyone  
13 one remembers, the BLM archaeologists and our staff we had  
14 SHPO there also, that it was mediated to a certain point  
15 by the Office of Historic preservation where they  
16 encouraged everyone to sort of play nice together.

17           And we, as a result of that, came up with a  
18 Condition of Certification that we believe was clear that  
19 the concerns of the Energy Commission would be met. We  
20 also talked extensively, at that time, about our concerns  
21 over meeting eligibility for the California Register  
22 despite any findings that the BLM might have on  
23 eligibility for the National Register, and our  
24 requirements therein.

25           And at that point, the BLM agreed in that hearing

1 that they recognized our responsibility to gather the  
2 information for that recommendation.

3 And I'm not aware of anything that's changed  
4 since that hearing on this issue.

5 MS. MILES: Well, I mean, I'm not sure that what  
6 you just said addresses questions like what would happen  
7 if the Energy Commission believed that a resource should  
8 be avoided, and the BLM disagreed.

9 PROJECT MANAGER MEYER: So it's  
10 situation -- well, are we talking about if the BLM is  
11 saying that a site is not eligible for the National  
12 Register, and the Energy Commission found that it is  
13 eligible for the California Register and should be  
14 avoided, it needs to be avoided. I'm not aware unless you  
15 have something to enter into evidence, you know, from the  
16 BLM that they're stating that they would overrule or  
17 challenge the Energy Commission's authority on putting  
18 conditions on power plant development, I'm not aware of  
19 that at this point.

20 MS. MILES: Well, I just would like the note for  
21 the record that BLM had grave reservations with  
22 participating with the Energy Commission, in many ways,  
23 throughout this process in providing documentation, and  
24 has, you know -- and had a very different opinion of the  
25 resources on the project site.



1           And so if the ultimate decision-making authority  
2 does rest with the BLM, then, you know, I think that there  
3 are serious concerns. And, you know, we can also submit  
4 comments on this and revised Conditions of Certification.  
5 You know, so I don't want to continue to just take up too  
6 of time. I was on my last question.

7           But I am glad that this issue has come up. And  
8 you know, I think that it's very important to look closely  
9 at what will the Energy Commission's authority be once the  
10 project is approved. And I don't think that it's very  
11 clear based on what's in the Conditions of Certification  
12 and based on what the BLM's authority is under the law  
13 once you're in the Programmatic Agreement context.

14           PRESIDING MEMBER EGGERT: Just a quick question  
15 for my own clarification, in terms of the conditions as  
16 they relate to cultural sources, that they're articulated  
17 as requirements of the applicant, not specifically of BLM,  
18 and then in the context of a PA -- or actually I should  
19 ask that, that is the case, correct?

20           MS. FOLEY GANNON: That's correct.

21           PRESIDING MEMBER EGGERT: And then in the context  
22 of where there might be a PA that, you know, provides  
23 additional detail or perhaps, I don't want to say  
24 substitute, but I'll use that word, substitutes for a  
25 condition, how does that affect the CEC's sort of

1 enforcement authority over that particular condition, I  
2 guess is a question for staff?

3 MS. ALLRED: Well, like I said, I believe in the  
4 condition that if the PA did not include, you know,  
5 requirements that met the intent of Cul 4, that we would  
6 then revert back to Cul 4.

7 PROJECT MANAGER MEYER: Yes. That's my  
8 understanding as well. And then as you say the condition  
9 would be on the applicant not on BLM. So it would not be  
10 a condition that we would be looking to the BLM to  
11 enforce. We would enforce it under our licensing  
12 authority.

13 PRESIDING MEMBER EGGERT: Okay. Thank you.

14 MS. ALLRED: We are hopeful that we'll work with  
15 the BLM on this programmatic agreement.

16 MS. MILES: So with regard to the feasibility of  
17 the mitigation proposal. If there's a disagreement  
18 between the Energy Commission and the BLM about whether  
19 mitigation is feasible, who would have the last word in  
20 resolving that?

21 PROJECT MANAGER MEYER: If it's a -- and Sarah  
22 can correct me if I'm wrong, but if it's a matter of  
23 eligibility -- if a site is -- we determine it's eligible  
24 for the California Register, that's going to be part of  
25 the conditions of the Energy Commission, if it's not

1 captured in the PA, as Sarah said, if you require it.

2           So, you know, I'd have to sort of confer more  
3 with, you know, siting and management of how they would  
4 deal with it and how, if we get to a situation like that,  
5 I would imagine that those in the Energy Commission higher  
6 than myself would work with their counterparts at the BLM  
7 to resolve this issue and not have it as just sort of a  
8 disagreement between archaeologists in the field. That it  
9 would be elevated for resolution, and that staff's  
10 position would be to protect the resource.

11           MS. MILES: And just for clarity, you are  
12 sworn -- this is sworn testimony, is that correct, Mr.  
13 Meyer?

14           PROJECT MANAGER MEYER: Yes.

15           MS. MILES: Okay, because I don't remember  
16 whether that occurred earlier today or not when you were  
17 piping up during different sections of the proceeding  
18 today.

19           So that's all my questions for right now.

20           HEARING OFFICER KRAMER: Okay. Any other  
21 intervenors' questions?

22           The applicant?

23                           CROSS-EXAMINATION

24           MS. FOLEY GANNON: I guess I have just one  
25 question. As I understand it then, the PA it's

1 contemplated that there will be specific measures that  
2 will be included, like a historic treatment plan, which  
3 would specify how the resources will be handled. The PA  
4 will also set forth the terms about how decisions will be  
5 made amongst the parties who have signed the agreement,  
6 including the CEC and the BLM. Is that your  
7 understanding as well?

8 It's a question for you can answer it or Sarah.

9 PROJECT MANAGER MEYER: I can. Yes, that's my  
10 understanding.

11 MS. ALLRED: I'm sorry, was that for me, I'm  
12 sorry.

13 PROJECT MANAGER MEYER: I think it was open to  
14 either of us Sarah, but yes, that is one of the things  
15 that has been talked about is the Programmatic Agreement  
16 calls out the requirement for other plans as well.

17 MS. FOLEY GANNON: And in process also for how  
18 the decisions are made, is that correct?

19 PROJECT MANAGER MEYER: That is correct.

20 MS. FOLEY GANNON: So when the Commission is  
21 making a determination about the adequacy of the  
22 Programmatic Agreements provisions ability to mitigate  
23 impacts to cultural resources, you will then have set  
24 forth before you the proposed treatment and the process,  
25 is that correct?

1 PROJECT MANAGER MEYER: Sarah can correct me if  
2 I'm wrong, but that's my understanding as well.

3 MS. ALLRED: Yes.

4 MS. FOLEY GANNON: And Sarah, I guess as the  
5 author of this document, taking that into account, do you  
6 feel that that will be sufficient to mitigate impacts to  
7 cultural resources to a less than significant level?

8 MS. ALLRED: I believe so.

9 MS. FOLEY GANNON: Thank you.

10 HEARING OFFICER KRAMER: There was a -- at least  
11 in the last recommendation, there was one unmitigated  
12 significant impact. Do I recall correctly that was a  
13 cumulative impact to -- was it to the Historical Highway?

14 MS. FOLEY GANNON: It was the visual, Route 66,  
15 which we discussed this morning.

16 HEARING OFFICER KRAMER: Okay, so the cross-over  
17 issue, yeah.

18 Just let me take a minute to look at the...

19 So then, Ms. Allred, is that the only impact  
20 that's not fully mitigated or mitigated to a less than  
21 significant level is the cumulative impact, the visual  
22 impact?

23 MS. ALLRED: Yes, the visual, yeah.

24 HEARING OFFICER KRAMER: Okay. Mr. Lamb, I think  
25 this is sort of -- actually, I think because of the way

1 you intervened and you didn't raise cultural issues, we  
2 could make this outside your jurisdiction very easily, but  
3 did you have any questions.

4 MR. LAMB: No, sir.

5 HEARING OFFICER KRAMER: That wasn't a threat.

6 (Laughter.)

7 HEARING OFFICER KRAMER: Okay, Ms. Miles, you had  
8 your witness on cultural issues.

9 MS. MILES: I'm sorry. I had a couple of  
10 questions as well for Ms. Nixon, Rachael Nixon, the  
11 Applicant's expert on cultural.

12 HEARING OFFICER KRAMER: Would you like to ask  
13 those before you put Mr. Whitley on?

14 MS. MILES: I think that would be orderly.

15 MS. FOLEY GANNON: And we confirm, Ms. Nixon, are  
16 you on the line.

17 MS. NIXON: Yes, I am.

18 Whereupon,

19 RACHAEL NIXON

20 was previously sworn and testified as follows:

21 MS. FOLEY GANNON: She was sworn in these  
22 proceeding earlier, and I have no direct for her, so we  
23 can tender her for cross-examination.

24 HEARING OFFICER KRAMER: Okay. For our court  
25 reporter who may not have been here the last time, Ms.

1 Nixon, could you spell your first and last names for him?

2 MS. NIXON: Rachael, R-a-c-h-a-e-l, Nixon  
3 N-i-x-o-n

4 HEARING OFFICER KRAMER: Thank you.

5 And you were just making her available for  
6 cross-examination?

7 MS. FOLEY GANNON: That's correct. She did  
8 prepare a declaration regarding 5.5 and 6. And that was  
9 submitted as an exhibit to Ms. Bellow's testimony, she  
10 is -- we have no direct to offer.

11 HEARING OFFICER KRAMER: Okay. Go ahead, Ms.  
12 Miles.

13 CROSS-EXAMINATION

14 BY MS. MILES:

15 Thank you. In your technical report, you made  
16 eligibility recommendations for all of the sites within  
17 the project AP, is that correct?

18 MS. NIXON: That is correct.

19 MS. MILES: And these eligibility determinations  
20 only addressed the research potential of the sites, is  
21 that correct?

22 MS. NIXON: The eligibility determinations took  
23 into all factors all criteria.

24 MS. MILES: And did you determine that they only  
25 had -- all of the sites had only research potential.

1 MS. NIXON: For those tights that were  
2 recommended eligible, there were -- that is basically  
3 correct.

4 MS. MILES: And did you consider the possibility  
5 that some of the sites might have religious or other  
6 associative values to Native Americans?

7 MS. NIXON: I did and I can't speak to that  
8 effect. That is part of the evaluation process, and that  
9 is also something BLM can speak to with regards to making  
10 their concurrence with these determinations --  
11 recommendations, I'm sorry.

12 MS. MILES: Did I hear you correctly, did you say  
13 you could not speak to that or you could speak to that?

14 MS. NIXON: I cannot. I am not -- to their  
15 significance, culturally and significantly to Native  
16 Americans, I cannot speak on behalf of Native Americans.

17 MS. MILES: So did you do any work to determine  
18 what the value might be to Native Americans?

19 MS. NIXON: That has been done by BLM in  
20 coordination with URS and BLM has been -- consultation has  
21 been ongoing since July 2008 with Native Americans,  
22 regarding this project and sites within it.

23 MS. MILES: Thank you. I have no other questions

24 MS. NIXON: Yeah.

25 MS. MILES: That's all I had.



1 HEARING OFFICER KRAMER: Any other questions from  
2 another party of Ms. Nixon?

3 Seeing none. Go ahead with Dr. Whitley.

4 Was it Dr. Whitley.

5 MR. WHITLEY: Yes, it is.

6 HEARING OFFICER KRAMER: And you were previously  
7 sworn, as I recall?

8 DR. WHITLEY: Yes, I have been.

9 Whereupon,

10 DAVID WHITLEY  
11 was previously sworn and testified as follows:

12 HEARING OFFICER KRAMER: Well let me -- Oh, never  
13 mind that's something else. Go ahead.

14 DIRECT EXAMINATION

15 BY MS. MILES:

16 Dr. Whitley, who's testimony are you sponsoring  
17 today?

18 DR. WHITLEY: My own.

19 MS. MILES: Do you have any changes to your sworn  
20 testimony?

21 DR. WHITLEY: No, do I not.

22 MS. MILES: Please provide a summary of your  
23 conclusions about the project's analysis of impacts to  
24 cultural resources.

25 DR. WHITLEY: My declaration can be summarized, I

1 think, in terms of four points.

2           First, neither of the two proposed scenarios will  
3 significantly reduce adverse impacts to cultural  
4 resources. In both cases, what we're looking at is a  
5 circumstance where only four archaeological sites will be  
6 eliminated from the project APE leaving over 100 to be  
7 destroyed.

8           Second, regardless of the development scenario,  
9 CEC staff and the applicant have failed to consider the  
10 possibility for unique cultural resources as required by  
11 CEQA. And there is substantial cause to believe that  
12 unique resources may be present within the project area.  
13 This specifically involves sites that may be relevant to  
14 the first peopling of the America's question.

15           Third, assuming that sites SBR 1908 and 13093 are  
16 included in the development scenario, the project has the  
17 potential to destroy Native American sacred sites. Recent  
18 archaeological and ethnographic studies have demonstrated  
19 that sites with exactly these kinds of features, the kinds  
20 of features present on these two sites, were created in  
21 religious rituals, including cairn burial. This  
22 possibility and the impacts that would result from the  
23 destruction of these sites have been overlooked or ignored  
24 by the CEC staff and the applicant.

25           Fourth, the Conditions of Certification failed to

1 comply with CEQA and standard archaeological practice.  
2 Cul 4 specifically requires the applicant to excavate 20  
3 percent of the sites within each defined site type or site  
4 classification.

5 But it is impossible to tell, for example,  
6 whether a sparse lithic scatter, a particular site type,  
7 partly defined by the absence of a subsurface deposit is a  
8 sparse lithic scatter and instead whether it's something  
9 else, something different without subsurface testing.

10 Archaeological testing, in other words, is  
11 required to definitively identify site types, just as it  
12 is required to definitively determine a site's  
13 significance and eligibility, as the staff, in fact, have  
14 repeatedly pointed out.

15 Cul 4, the description that you heard tonight,  
16 probably sounded like mumbo jumbo, not because it's late,  
17 not because people are tired, not because you're not  
18 archaeologists, but because it defies logic and inverts  
19 standard archaeological practice.

20 It also fails to recognize the potential for  
21 unique resources within the project. So in summary, each  
22 of the proposed development scenarios will result in the  
23 destruction of over 100 archaeological sites.

24 The specific adverse impacts to cultural  
25 resources have not yet been identified, because the sites

1 haven't been tested. Again, as the CEC staff has  
2 repeatedly observed and no appropriate mitigation measures  
3 have yet been proposed.

4 MS. MILES: Thank you. Can you just expand for a  
5 moment on what you mean when you say that Cul 4 inverts  
6 the standard archaeological process.

7 DR. WHITLEY: To determine a site's eligibility  
8 and significance requires a certain amount of empirical  
9 evidence. Subsurface testing, as the CEC staff again has  
10 repeatedly stated is required to obtain that empirical  
11 evidence.

12 You can't tell if a site is just a surface lithic  
13 scatter or whether a subsurface deposit is present, unless  
14 you test excavate it. That means you cannot identify what  
15 type of site it is until you have that empirical data.

16 Cul 4 is saying use a Ouija Board and decide what  
17 your site types are, and then go out and excavate 20  
18 percent of them. That is exactly the reverse of any kind  
19 of rational approach to archaeological work and frankly  
20 I've never seen anything proposed like it in my life  
21 before.

22 MS. MILES: I'm sorry, could you explain what you  
23 mean by use -- I know, you were being facetious when you  
24 said use a Ouija Board. But I mean in terms of what Cul 4  
25 actually requires, can you explain why, you know, that --

1 because I believe that the staff did testify that there  
2 was some method, in terms of determining, you know, which  
3 sections of the sparse lithic scatter would be chosen to  
4 be where there would be subsurface testing.

5 And so, you know, what is your concern with that?

6 DR. WHITLEY: Well, let's -- the simple fact is  
7 the presence or absence of a subsurface archaeological  
8 deposit is dependent upon a variety of factors and  
9 processes. One of those is cultural use and occupation,  
10 but the second one is very localized  
11 micro-geomorphological processes, which is to say soil  
12 deposition processes.

13 The only way you can sort out whether a site has  
14 or has not have a subsurface deposit is to test excavate  
15 at it. And whether a site has a subsurface deposit or  
16 lacks one is one of the most fundamental characteristics  
17 of different site types.

18 So to say that you're defining site types without  
19 that most basic and fundamental of archaeological data is  
20 making it up.

21 And yes, calling it Ouija Board archaeology is  
22 facetious, but frankly I don't know how else to describe  
23 it. It's just not how archaeology is done. It doesn't  
24 lead to a rationale determination. Frankly, it's just  
25 making it up and it's making it up for purposes of

1 expediency.

2           Now, here's the other issue of Cul 4 that causes  
3 it -- I mean, it cause me to think this is just completely  
4 beyond the pale. Twenty percent of the putative site  
5 types will be excavated. The other 80 percent will be  
6 blown away. What happens if one of those site types  
7 happens to have human burials in it?

8           There's no provision to account for that, other  
9 than when the bulldozers are going, a monitor will be  
10 there to catch the craniums as they roll out of the  
11 ground.

12           This is just not -- it's not responsible heritage  
13 management. It's not a smart way to do business. It is  
14 not a reasonable stewardship of cultural resources.

15           MS. MILES: So can you envision a scenario where  
16 they could -- or how would you go about this if you were  
17 actually trying to lay out what the Conditions of  
18 Certification were for this project?

19           DR. WHITLEY: Well, the first thing is, this  
20 project -- the archaeology has been underway here for two  
21 years. There is no reason whatsoever why this couldn't  
22 have been done correctly from day one. And frankly, it  
23 wouldn't have taken any longer, and I bet it would have  
24 cost the applicant less money, if they'd just gone out,  
25 done the survey, done the test excavation. And then there

1 wouldn't be any room for debate. And, you know, so we're  
2 at the 11th hour. We don't have the standard data that's  
3 required to evaluate these sites. Conditions are being  
4 invented that make no sense whatsoever in the hopes that  
5 nobody notices that none of this is making any sense.

6           The sites need to be tested. We need affirmative  
7 evidence on their significance, their eligibility, and the  
8 types of sites that are out there. And from that point,  
9 then a project can be planned and determinations can be  
10 made about what sites reasonably could be mitigated  
11 through data recovery or salvage excavations, and which  
12 ones need to be preserved in place. We have none of that  
13 information at this point.

14           MS. FOLEY GANNON: Hearing Officer Kramer, it  
15 sounds to me this is -- Dr. Whitley has provided testimony  
16 a couple of times in this proceeding as well as written  
17 testimony prior to this. And this sounds to me like  
18 evidence we've already heard. So if there is something  
19 new or different that's being presented, it seems like  
20 this is evidence that we've gone over and we understand  
21 his position.

22           MS. MILES: Well, perhaps it does sound similar,  
23 but it is --

24           MS. FOLEY GANNON: Very similar.

25           MS. MILES: -- but it is a new set of Conditions

1 of Certification, and so we're just trying to, you know,  
2 provide testimony on this revision that was provided to  
3 the Conditions of Certification, and the Programmatic  
4 Agreement that primarily came in at the end of the last  
5 evidentiary hearing.

6           Regardless, we are wrapping this up.

7           DR. WHITLEY: More to the point, we have two new  
8 development scenarios that are being proposed. And the  
9 bottom line of what I'm saying is things have not changed.  
10 No one has made any effort to get this under control.  
11 Instead, it's just spinning and further and further and  
12 further out of control. As I say --

13           HEARING OFFICER KRAMER: Well, actually your  
14 statement that things have not changed is perhaps telling  
15 here, because what our goal today is -- was and is, is to  
16 hear about information that has changed, because of the  
17 change in the project design.

18           So I think if you want to try another question to  
19 wrap it up, Ms. Miles. We agree with Ms. Gannon that this  
20 is largely repetition of what we've heard before. We will  
21 have a question -- I have at least one question for Mr.  
22 Whitley when you're done. But we don't need to -- even a  
23 proposed condition was debated quite extensively, I  
24 believe, at the last hearing.

25           MS. MILES: It was provided to us like minutes



1 before the last hearing, so I didn't feel like there was  
2 really an adequate opportunity to participate in that.

3 HEARING OFFICER KRAMER: Okay. Well, he has  
4 certainly unloaded on it at this point.

5 MS. MILES: That's true, so we will move on.

6 Mr. Whitley, was there anything else you wanted  
7 to add in your testimony?

8 DR. WHITLEY: No, that's all.

9 MS. MILES: Thank you.

10 HEARING OFFICER KRAMER: So Mr. Whitley, are you  
11 saying then -- this is the Hearing Officer, Paul Kramer.  
12 Are you saying that all of the potential sites need to be  
13 tested or excavated, is that the only way to properly  
14 address their potential impacts?

15 DR. WHITLEY: That is standard archaeological  
16 practice, as the CEC staff, in their Revised Staff  
17 Assessment, has stated repeatedly. It's the only way that  
18 one can determine if you have unique archaeological  
19 resources as defined in CEQA, the identification of which,  
20 and treatment of which is also required by CEQA.

21 HEARING OFFICER KRAMER: But the staff has  
22 apparently modified their approach. And they have agreed  
23 to a 20 percent sampling protocol.

24 DR. WHITLEY: The 20 percent sampling protocol  
25 will not identify unique resources, by definition.

1 HEARING OFFICER KRAMER: Now, do you typically  
2 work on projects of the scale of this project?

3 DR. WHITLEY: Have I? Yes.

4 HEARING OFFICER KRAMER: And on those other  
5 projects, have they applied this hundred percent sampling  
6 regime?

7 DR. WHITLEY: Absolutely. I have not seen an  
8 application like this in my career. Uniformly, I have  
9 always tested every site that's in a project footprint.

10 HEARING OFFICER KRAMER: And so how big have  
11 these other comparable projects been and what was their  
12 nature?

13 DR. WHITLEY: Well, for example, last year the  
14 Tejon Ranch -- Tejon Mountain Village Project was the EIR  
15 for -- that was certified and approved by Kern County.  
16 That was 25,000 acres of survey, over 60 sites tested.

17 HEARING OFFICER KRAMER: This project has how  
18 many sites?

19 DR. WHITLEY: A hundred and four.

20 HEARING OFFICER KRAMER: On about -- well, it was  
21 6,000 acres, I guess.

22 DR. WHITLEY: Yes. Two or three months ago, the  
23 company I worked for ASM Affiliates, working for Edwards  
24 Air Force Base tested 85 archaeological sites. The  
25 approach taken by the Department of Defense facilities

1 frankly is test every archaeological site on an  
2 installation. And they have reasons for that.

3           Preservation for military installations is not  
4 always an option. They need to affirmatively determine  
5 whether their sites are eligible or not. Hundred percent  
6 testing is the approach they use. And they have programs  
7 that are ongoing to achieve those goals.

8           HEARING OFFICER KRAMER: Okay, thank you. Any  
9 questions from any other party for Dr. Whitley.

10           Do any of the other parties wish to provide any  
11 sort of response to his assertion that it's necessary to  
12 test a hundred percent of the suspected sites?

13           MS. ALLRED: This is Sarah Allred. And in my,  
14 you know, research on this project, I looked a fair amount  
15 into the work that was done at 29 Palms at the Marine  
16 Corps Air Ground Combat Center. And there's been  
17 extensive work on pavement quarry sites, whereby they do  
18 not test every single site, because the nature of pavement  
19 quarries, are such that they tend to be shallow and  
20 redundant. And so I looked in particular. And I've cited  
21 this in my letter to the BLM recently on September 17th,  
22 that there's a, you know, extensive work done there. And  
23 the author Giambastiani 2009, as I cited in my letter,  
24 prepared a research design for that installation that  
25 describes a lot of work that they've done on pavement

1 quarries. And it does not involve a hundred percent  
2 testing of every site due to the nature of the pavement  
3 quarry resource.

4 HEARING OFFICER KRAMER: So the term is a  
5 pavement quarry?

6 MS. ALLRED: Yes or lithic extraction site, but  
7 pavement quarry in particular.

8 DR. WHITLEY: If I can respond to that.

9 HEARING OFFICER KRAMER: Well, let's let Ms.  
10 Nixon respond to you first if she wants.

11 MS. FOLEY GANNON: Rachael, are you on line?

12 MS. NIXON: Yes, I'm here.

13 MS. FOLEY GANNON: And Rachael, can you comment  
14 on the testimony that you just heard that it is necessary  
15 to do, and I think what Dr. Whitley is saying you actually  
16 have to do subexcavation -- subterranean excavation on  
17 every single site that is found to be able to make a  
18 determination on eligibility?

19 MS. NIXON: That's false. Even if he tested  
20 every sing site, in that site he would test a sample of  
21 each site. And there's a possibility that in that sample,  
22 he would still miss what he's thinking may or may not be  
23 eligible or significant. There is no way to hundred  
24 percent -- feasibly hundred percent test the site to make  
25 a decision. It's always a sample.

1           MS. FOLEY GANNON: Rachael, just very briefly,  
2 can you summarize the basis for your recommendations on  
3 these sites?

4           MS. NIXON: Basically as we've discussed before,  
5 we've been working on this project since August 2008.  
6 We've logged in countless hours of recordation and survey  
7 and analysis of previous sites -- previous work that's  
8 done in the project area, the Mojave Pipeline, the All  
9 American Pipeline. Have conducted test excavations within  
10 the project boundary of these site types that we're  
11 talking about that we're concerned with subsurface  
12 potential, and the results were negative. Maybe there was  
13 a flake at 10 centimeters that did not change the  
14 eligibility of that site.

15           And in addition, there's sites in the project  
16 area within a mile to five mile radius that have been done  
17 by numerous companies, and the results have been the same.

18           There have been no sites in the area within the  
19 AP or within the surrounding area of the site found  
20 eligible. In addition, we -- part of the data request, we  
21 conducted concurrent with additional resurvey and detailed  
22 documentation counts of artifacts by material type and  
23 typology, the complete hundred percent inventory of the  
24 surface artifacts and features has been done.

25           A geomorphologist -- a geoarchaeologist also

1 conducted subsurface testing in conjunction with that and  
2 provided an analysis of the subsurface potential across  
3 the entire APE, and the results were very low to moderate  
4 at best.

5 MS. FOLEY GANNON: Thank you, Ms. Nixon. I know  
6 it's hard to summarize thousands of hours in two minutes,  
7 but we appreciate that.

8 And there's just one final question. So the  
9 archaeologists that were on the site part of URS's team,  
10 you also had a LSA working for the BLM on the site as,  
11 well, is that correct?

12 MS. NIXON: That is correct, LSA provided  
13 archaeological -- archaeologists with each theme during  
14 the data request where we went and resurveyed and  
15 collected the additional data I was referencing. So we  
16 had analysis --

17 MS. FOLEY GANNON: And the archaeologists that  
18 were on the site from URS and LSA, as well as BLM, there  
19 was concurrence about the need to do additional  
20 subterranean excavation on a hundred percent of these  
21 sites, is that correct?

22 MS. NIXON: No, they did not --

23 MS. FOLEY GANNON: Was there concurrence about  
24 the need to do subterranean excavation?

25 MS. NIXON: There was concurrence, but it wasn't

1 necessary.

2 MS. FOLEY GANNON: Excellent. Thank you.

3 MS. NIXON: Thank you.

4 HEARING OFFICER KRAMER: So then what is the --  
5 is there a level between just sampling the surface and  
6 subterranean excavation, a level of inquiry?

7 MS. FOLEY GANNON: I think that's what she was  
8 describing as the effort is it was also relying upon other  
9 subterranean excavation that had been done on the site to  
10 inform the decision. And now I think there has been this  
11 concurrence of saying there's going to be this 20 percent  
12 sample or this alternative method that was discussed at  
13 the last hearing of, you know, sort of the slow clearing  
14 that was discussed between the BLM and CEC staff last time  
15 to see what's under the surface in these areas. And we  
16 think that's appropriate.

17 HEARING OFFICER KRAMER: And then there will be  
18 monitors for the other activities?

19 MS. FOLEY GANNON: And then there will be  
20 monitors on the site for all other activities.

21 HEARING OFFICER KRAMER: Okay. Dr. Whitley,  
22 briefly and then we need to move on to biology.

23 DR. WHITLEY: Okay. Thank you. And a couple of  
24 things.

25 First, with respect to Ms. Allred's comments. As

1 I mentioned before, military installations are  
2 progressively testing their sites. They are working  
3 towards a hundred percent testing of their sites. They  
4 don't get it overnight. It doesn't happen immediately.  
5 With respect to the desert pavement quarries, that's a  
6 specific site type that has been defined, based on  
7 subsurface testing in part, which in fact has not  
8 occurred. And the supposition that the sites within the  
9 project APE are necessarily just desert pavement quarries  
10 has not yet been established.

11           Second, with respect to Ms. Nixon's comment.  
12 She's absolutely correct that you can never test a hundred  
13 percent of the site. That's not the point. The point  
14 is -- and that's always true in any kind of scientific  
15 work. The point is that you need to get a reasonable  
16 amount of information to come to some rational conclusion.  
17 Subsurface testing is part of that.

18           Now, she has claimed under oath that no sites in  
19 the project APE have subsurface deposits. None in the  
20 area that we're previously tested. In fact, that's not  
21 correct. The BLM went out and tested a couple of sites,  
22 and found some subsurface deposit at those and determined  
23 them eligible.

24           The problem is they didn't test any of the  
25 others, and we have other examples. For example, from the



1 Kern pipeline project, which went through the same area in  
2 Santa Barbara county, where we have what looked like  
3 desert pavement quarries on the surface that have  
4 subsurface deposits extending to essentially a yard below  
5 the ground.

6           So the simple fact is we don't know what is  
7 underground at these sites. And until we do, we don't  
8 know what the adverse impacts of the project will be, and  
9 we can't specify what the mitigation -- the appropriate  
10 mitigation measures should be.

11           HEARING OFFICER KRAMER: Thank you. Anything  
12 further from the parties on cultural?

13           MS. MILES: Nothing from CURE.

14           HEARING OFFICER KRAMER: Okay, let's move to the  
15 Biology then.

16           MR. RITCHIE: Could we potentially bring the  
17 lights back up. It's not helping my current attempts to  
18 stay awake.

19           PRESIDING MEMBER EGGERT: I would note that we do  
20 have a soda machine on the second floor with caffeinated  
21 beverages for those that...

22           HEARING OFFICER KRAMER: Okay, does anybody  
23 desire to go first.

24           MS. FOLEY GANNON: We'll go first.

25           HEARING OFFICER KRAMER: Okay, the applicant.

1           Whereupon,  
2           PATRICK MOCK, THERESA MILLER, CHRIS HUNTLEY  
3           SCOTT WHITE, CHRIS OTAHAL, JEFF AARDAHL  
4 were previously sworn and testified as follows:

5                           DIRECT EXAMINATION

6 BY MS. FOLEY GANNON:

7           The Applicant has two witnesses that we would  
8 like to call on with regards to impacts to Biological  
9 resources. Dr. Patrick Mock and Ms. Theresa Miller. Both  
10 of them have provided testimony earlier in these  
11 proceedings, both written and verbal. And they provided  
12 declarations last week with regard to the new scenarios.  
13 They were both sworn at the last hearings, so I think they  
14 don't need to be sworn in again.

15           If you could both state your name for the court  
16 reporter.

17           DR. MOCK: Patrick Mock, M-o-c-K.

18           MS. MILLER: Theresa Miller, T-h-e-r-e-s-a.  
19 Miller.

20           MR. LAMB: Hold on. Hold on.

21           MS. FOLEY GANNON: Thank you. Dr. Mock, have you  
22 had an opportunity to review and were you involved in the  
23 identification of Scenarios 5.5 and 6

24           DR. MOCK: Yes, I was.

25           MS. FOLEY GANNON: And have you reviewed them to

1 determine their relative impacts to biological resources.

2 DR. MOCK: Yes, I have.

3 MS. FOLEY GANNON: And can you provide us with a  
4 summary of the impacts of both a 5.5 and 6 to biological  
5 resources?

6 DR. MOCK: Yes. These are summarized also in  
7 staff's document that was produced late last week. Our  
8 analysis was substantially the same as theirs. In terms  
9 of acreage, the Scenario 5.5 has an impact of slightly  
10 over 4,600 acres, compared to 6,215 acres for the proposed  
11 project.

12 And Scenario 6 is a few hundred acres less.  
13 They're down to 4,244 acres.

14 In addition to the actual direct impact, you can  
15 also calculate the indirect impact of the adjacent lands.  
16 And we did a quick evaluation of that, and that's on the  
17 order of 1,580 acres for 5.5 and 1,421 acres for Scenario  
18 number 6.

19 In terms of waters of the U.S., I think we've  
20 talked about that before.

21 MS. FOLEY GANNON: Or waters of the State?

22 DR. MOCK: Waters of the State. I'm sorry.

23 There are no waters of the U.S. as determined by  
24 the Corps of Engineers.

25 Scenario 5.5 is down to 152 acres. And Scenario

1 6 is 126 acres, rounding. Theresa Miller will discuss the  
2 Desert Tortoise details, so I won't go into that.

3 The distance from the Cady Mountains has  
4 increased. Scenario 5.5 is almost 6,900 feet from the  
5 base of the Cadies, compared to the 4,000 foot width that  
6 the Fish and Wildlife Service requested for the 6,215  
7 project.

8 And Scenario 6 is an additional 1,100 acres on  
9 top of that, slightly over 8,000 feet from the Cady  
10 Mountains. And so that would be the distance that in  
11 large, the distance for the east-west wildlife corridor  
12 linkage that the Wildlife Service was looking for.

13 As you can expect, there's a reduction in  
14 acreage. All that reduction in acreage occurs at the  
15 northern border of the project. That scenario has the  
16 least amount of current edge effect. And therefore, we're  
17 reducing the amount of edge effect by reducing the acreage  
18 in that location.

19 If we were to reduce the acreage down by the  
20 highway or the railroad, those areas are already edge  
21 effected by those linear structures and so the edge effect  
22 would be less pronounced if you had worked from the south.

23 Bighorn Sheep of course would benefit from the  
24 additional acreage being left outside the perimeter fence,  
25 as would many others wildlife species, such as burrowing

1 owl, badger, kit fox and so on.

2 Rare plants are less affected by these scenarios.  
3 The bulk of the rare plant sitings are in the southern  
4 third of the project. And so those -- that southern third  
5 continues to be in both of these scenarios.

6 MS. FOLEY GANNON: So if you're quantifying or  
7 qualitatively discussing the relative impacts of these  
8 scenarios, as compared to the project we were discussing  
9 at our last hearings, what is your overall conclusion  
10 about the effect of Both 5.5 and 6?

11 DR. MOCK: Well, you have between 1,600 and 2,000  
12 acres of less direct impacts to wildlife habitats. You  
13 have less edge effect. You have less loss of specific  
14 resource sensitive resources, maybe one or two burrowing  
15 owl territory's may be saved with these two scenarios.  
16 You have 1,600 to 2,000 acres of additional foraging  
17 habitat for a variety of wildlife, such as the bighorn  
18 sheep, Golden Eagle and species like that.

19 And you just have a smaller footprint, which  
20 reduces the overall landscape effect. Wildlife movement  
21 is enhanced in the east-west pattern by the substantial  
22 widening of the linkage to the north.

23 MS. FOLEY GANNON: And in talking about movement  
24 corridors, there has been a brief discussion here earlier  
25 tonight about the north-south movement corridors. Can you

1 comment on these scenarios effects on the north-south  
2 movement corridors that makes this through the project  
3 site?

4 DR. MOCK: Well, I personally don't think there's  
5 much of an issue in this regard, because you have  
6 substantial lands on both the east and west sides of the  
7 project that function as a north-south movement area for  
8 whatever wildlife that might be associated with those  
9 areas.

10 You have the ACEC on the eastside. You have, in  
11 the record, the published record of modeling for bighorn  
12 sheep movements. And those modeling scenarios show the  
13 movement patterns occurring east of the project  
14 substantially east of the project, more than a mile away.  
15 So the issue of north-south movement is really kind of a  
16 non-starter in my mind.

17 So these scenarios don't change the situation  
18 compared to the 6,200 scenario. You still have this  
19 fenced in area that would act as -- preclude north-south  
20 movement through the project site.

21 But you have open areas on either side of the  
22 project that allow for a north-south movement of wildlife.

23 MS. FOLEY GANNON: And there has been some  
24 written testimony specifically regarding the potential for  
25 bighorn sheep to be using this as a north-south movement

1 corridor. And we don't need to go -- you gave some  
2 testimony on this in Barstow back in August, and so we  
3 don't need to go back over that testimony.

4 But in some of the written testimony that was  
5 submitted by intervenors, there was a claim that the sheep  
6 used the site more than was described by URS in your  
7 documentations based upon a reported scat that was found  
8 on the site during the Desert Tortoise surveys.

9 Can you comment on that?

10 DR. MOCK: Yeah, we followed up on that. It was  
11 true that we did not acknowledge that observation, in  
12 terms of what its context was about. We had overlooked  
13 it, but we've talked to the crew leader for that team that  
14 made that siting. And that crew leader was Dr. Rob  
15 Debaca. Rob has a Ph.D in mammalogy. He's very well  
16 qualified to be able to assess the scat of mammals in that  
17 area

18 In talking with Rob, the way the form was read is  
19 it was basically it said sheep and then it had a markings  
20 of a single siting, but he didn't -- it was detailed  
21 enough for us to understand what he meant.

22 So he clarified it. It's a domestic sheep or a  
23 domestic cow type of scat. It wasn't a scat that would be  
24 indicative of bighorn sheep.

25 MS. FOLEY GANNON: And is that -- for those of us

1 who don't necessarily distinguish this on our own, is that  
2 like an easy distinction to make, is that something  
3 that --

4 DR. MOCK: Well, in the case of this one it  
5 was -- he said it had a definite pattern of domestic  
6 ruminant dung and didn't have the pellet like formation  
7 that you would expect from a bighorn sheep. Bighorn sheep  
8 produce scat that are somewhat similar to deer. And to  
9 that they're small pellets in a grouping, and that is very  
10 distinctive compared to domestic animals.

11 MS. FOLEY GANNON: And having said I believe you  
12 did discuss this in your written testimony, and I don't  
13 remember if we discussed this in your live testimony, but  
14 there has been some sign of the bighorn sheep using the  
15 site, is that correct?

16 DR. MOCK: Yeah, at the very northern edge of the  
17 original 8,000 acre site. There was some detection of  
18 actual skeletons, a skull in actually almost a fully  
19 articulated skeleton were detected, as well as some scat  
20 were detected in the areas closest to the Cady Mountains  
21 where they were looking at looking for Desert Tortoise in  
22 potential relocation areas.

23 MS. FOLEY GANNON: And those sitings were found  
24 in areas -- in an area that is included or excluded from  
25 the Scenario 6 and 5.5.



1 DR. MOCK: Oh, they're excluded now. They were  
2 excluded from the 6,200. They were in the full 8,000.

3 MS. FOLEY GANNON: And so in your professional  
4 judgment, if you could just summarize your conclusions  
5 about the impacts of either 5.5 or 6 on bighorn sheep.

6 DR. MOCK: It would impact areas that would  
7 potentially foraging, but their area is farther away from  
8 the Cady Mountains, which is where the sheep is their core  
9 use area. Sheep are very risk adverse, in terms of  
10 predators. They like to be relatively close to what they  
11 call a predator avoiding habitat. They're basically steep  
12 areas that it makes it harder for mountain lions to catch  
13 them if they're in steep areas. So they like to be close  
14 to escape habitat as they call it.

15 And so the farther they're away from the Cady  
16 Mountains, the more at risk they are for being preyed  
17 upon. And to the amount of time they spend away from the  
18 Cady Mountains is relatively small and is very time  
19 dependent, in terms of the green-up time for trying to get  
20 their nutrition for pregnant ewes.

21 MS. FOLEY GANNON: Thank you. And we'll be  
22 discussing with Ms. Miller in one moment, the Desert  
23 Tortoise field work that was done and some of the  
24 conclusions based upon that. But were you involved in  
25 delineating or designating where these lines should be

1 drawn for 5.5 and 6? Were you involved in that effort?

2 DR. MOCK: I participated in the discussions,  
3 yes.

4 MS. FOLEY GANNON: And what was the driving  
5 factor of how those areas were identified?

6 DR. MOCK: Well, it was a combination of a  
7 variety factors. I think the overriding factor was the  
8 transition from the Cady Mountains down to the railroad  
9 tracks as was discussed during the water resource  
10 discussions, is there is a distinct gradient of -- on this  
11 alluvial fan of rocky to coarse, sandy loam to sand --  
12 coarse sand to very fine sands, as one of the intervenor's  
13 experts called it or maybe it was the CEC expert called it  
14 almost like sugar. I mean, it's very fine sand. And  
15 that's where you find the Mojave Fringe-toed Lizard among  
16 others things in those fine sands.

17 And so this gradient of coarse or rocky soils  
18 down to a fine sand gradient is an important factor in  
19 determining the suitability for tortoise building their  
20 burrows.

21 MS. FOLEY GANNON: I was trying to ask a somewhat  
22 higher level question. The intent of 5.5 and Scenario 6,  
23 what was the purpose, what were you trying to accomplish  
24 in designating these particular scenarios?

25 DR. MOCK: Well, I think 6 was the full exclusion

1 of the area that we thought was a 5 to 1 mitigation ratio  
2 area. While 5.5 was providing some kind of a balance  
3 between the loss of megawatts in the project and the loss  
4 of -- and the number of tortoise that would ultimately  
5 have to be relocated. And so there was that balance, and  
6 the differentials between the 5.5 and 6 is really  
7 relatively small, in terms of the number of tortoise  
8 involved, at least in terms of our survey data. The  
9 number of tortoise between them is on the order of a few  
10 animals not tens of animals.

11 MS. FOLEY GANNON: And so the intent of these  
12 scenarios was to try to -- in attempt to reduce the  
13 impacts to Desert Tortoise and other biological  
14 resources --

15 DR. MOCK: Yes.

16 MS. FOLEY GANNON: -- to the extent practical?

17 DR. MOCK: Yes.

18 MS. FOLEY GANNON: Thank you.

19 Ms. Miller, turning to the reductions in the  
20 scenarios and the impacts on the Desert Tortoise --  
21 anticipated impacts on Desert Tortoise. Can you describe  
22 what you anticipate in the numbers of Desert Tortoise that  
23 would be impacted by both 5.5 and 6?

24 MS. MILLER: Yes. In scenario 5.5, we observed  
25 six adults and four juveniles in the project area. Per

1 the wildlife estimate, there were, we would estimate, 11  
2 adults and 5 to 11 juveniles on the project area. And  
3 that's compared to 48 adults and 9 juveniles observed on  
4 the 6,215-acre site, and an estimated 93 adults and 14  
5 juveniles. So it's a big decrease in the number of  
6 animals on the project site.

7           And then Scenario 6, we observed 1 adult and 3  
8 juveniles on that -- within that boundary. And the  
9 estimate for Fish and Wildlife was 2 adults and 1 to 2  
10 juveniles.

11           MS. FOLEY GANNON: So before turning to the  
12 discussion on the loss of habitat that may result from the  
13 project, what would be the implications of implementing  
14 these scenarios 5.5 and 6 as compared to the project  
15 previously discussed with this Committee on individual  
16 tortoise.

17           MS. MILLER: The major implication is that there  
18 will be less of a need for translocation of tortoise  
19 individuals, less habitat will be impacted, obviously less  
20 tortoise impacted, and increased -- will increase the  
21 corridor and the live-in habitat in the linkage area.

22           MS. FOLEY GANNON: And we were -- I was just  
23 discussing with Dr. Mock the way that the line was drawn  
24 for 5.5 and 6. And he was describing how it was based  
25 upon this line. You were saying it was a 5.5 mitigation

1 or it was the high quality mitigation areas, is that  
2 correct, was that the basis of these various scenarios?

3 MS. MILLER: Yes, the 6 was determined based on  
4 the high quality habitat, that line. And then the 4 was  
5 determined based on kind of balancing the mitigation and  
6 the -- or the loss of megawatts and the biology impacts.

7 MS. FOLEY GANNON: And where did this line come  
8 from for drawing the line for the high quality habitat.

9 MS. MILLER: It came from the habitat assessment  
10 that was performed as part of the translocation plan  
11 effort to determine the -- to compare the habitat between  
12 the project site and the translocation recipient areas.

13 MS. FOLEY GANNON: And can you describe how you  
14 completed this habitat assessment?

15 MS. MILLER: Yes, it was described in the  
16 translocation plan, but we'll clarify it a little better  
17 here. The habitat assessment started with the protocol  
18 surveys and that was the main focus of the assessment was  
19 we did it during the protocol surveys. The Protocol again  
20 required -- that's the Fish and Wildlife Service protocol  
21 surveys, required the 10 meter survey, transect surveys.  
22 We had 20 to 30 experienced tortoise biologists on the  
23 site doing the surveys for about over 2,400 hours of  
24 surveys in 2010 alone.

25 We recorded any tortoise and all data that was

1 observed during the surveys. And then if we found a  
2 tortoise, we filled out an additional data sheet that went  
3 into more detail about the habitat, and included  
4 information such as percent slope, aspect, topography,  
5 which included whether it was a flat area with small  
6 hills, a wash or be bajada. And it includes soil types,  
7 and there's a checklist of sandy loam, gravel, cobble,  
8 pavement type of habitat, vegetation, which included  
9 creosote bush, desert wash, Joshua tree, different types  
10 of area vegetation to choose from, the location that it  
11 was found in, such as in the burrow, on the ground, under  
12 a shrub, in the open.

13 And then other information, such as describing  
14 details about the tortoise, and the activity of the  
15 tortoise, whether scat was found near it, and the size and  
16 general health assessment of the tortoise.

17 Once the surveys were done, we compiled that  
18 data, and compared that data to the site and that data  
19 between the site and the translocation areas.

20 MS. FOLEY GANNON: And so how did you distinguish  
21 between -- the habitat assessment showed high, medium, and  
22 lower quality habitat, how did you distinguish those  
23 areas?

24 MS. MILLER: Mostly by our observations in the  
25 field. And we looked at the number of tortoise that were

1 observed, and the number of burrows that were observed  
2 within the site, and within the translocation areas, and  
3 we defined it based on those.

4 MS. FOLEY GANNON: So there wasn't a quantitative  
5 number that you used to derive that. It was a qualitative  
6 assessment?

7 MS. MILLER: It was a qualitative assessment.

8 MS. FOLEY GANNON: And how did you actually draw  
9 the line -- how did you distinguish high from medium? How  
10 do you say where one ends and the other begins?

11 MS. MILLER: We looked at -- so we draw it  
12 basically in the field with an aerial -- using our aerial  
13 maps and using that. And then comparing that with the  
14 data sheets and the observations of our field  
15 observations.

16 MS. FOLEY GANNON: And in your written testimony  
17 you referred also to a desktop model that was used as part  
18 of your habitat assessment. Can you describe that?

19 MS. MILLER: Yeah. In the translocation plan, I  
20 identified that we used a desktop analysis and a GIS  
21 analysis. And then during the hearings, I mentioned  
22 desktop model and desktop analysis, and kind of  
23 interchange the words.

24 And I'd like to clarify that we used a desktop  
25 analysis and not a desktop model, in the sense of a model

1 being like an air quality model type of thing, we did a  
2 desktop analysis.

3           So we used -- we used several layers. We used  
4 the USGS Desert Tortoise habitat suitability analysis  
5 model that was done. We used soils, topography, land-use,  
6 vegetation, other proposed projects. And then we used the  
7 BLM renewable projects, like proposed renewable projects  
8 layer to exclude areas that could be proposed as tortoise  
9 translocation areas, and to select areas for that during  
10 the translocation plan process.

11           MS. FOLEY GANNON: So you were doing it as part  
12 of the -- when you were developing the translocation  
13 plans.

14           MS. MILLER: Yes.

15           MS. FOLEY GANNON: So what was the primary  
16 purpose of the desktop analysis?

17           MS. MILLER: It was to select translocation  
18 areas.

19           MS. FOLEY GANNON: But you also did analysis of  
20 the site itself, the project site.

21           MS. MILLER: Yeah, the site was included in the  
22 analysis as well.

23           MS. FOLEY GANNON: And did the desktop analysis  
24 tell you anything or predict anything about the site?

25           MS. MILLER: It showed that there would be some



1 variation or gradation in the habitat between the north  
2 and the south of the project.

3 MS. FOLEY GANNON: And did you, in your 2,400  
4 hours in the field, did you confirm that the gradation  
5 existed in the field?

6 MS. MILLER: Yes, we were able -- we definitely  
7 confirmed that gradation. And it was very -- a much more  
8 defined gradation between the habitat, and -- as Dr. Mock  
9 said, and as they said in the sediment -- or the water and  
10 soil, there was a definite gradation between the soils  
11 from the north to the south.

12 MS. FOLEY GANNON: Now are you confident that  
13 your classifications of where the highest quality habitat,  
14 the medium, and the lower quality habitat reflects what's  
15 in the field?

16 MS. MILLER: Very confident.

17 MS. FOLEY GANNON: And if you -- we know one of  
18 the advantages of doing a model is that it can be rerun by  
19 somebody else. You can input numbers. You can get --  
20 come out and you can say if it's a 5 or if it's a 5,  
21 comparatively, rather objectively.

22 Do you think that the drawing of this line could  
23 be replicated on this site if someone was spending time on  
24 this site?

25 MS. MILLER: I do. I think that any competent

1 wildlife biologist or Desert Tortoise biologist could  
2 recreate it. And I think that the model is valuable  
3 because it's a -- you know, the model was done at a very  
4 large scale effort. At the southside it was like 250  
5 kilometers versus the project site, which was 6,000 acres.

6 MS. FOLEY GANNON: When you're referring to the  
7 mode, you're referring to?

8 MS. MILLER: The USGS model versus our desktop  
9 analysis and our actual field surveys and our field effort  
10 and the habitat suitability assessment. 250 acres --  
11 yeah, no, 250 kilometers -- 50 acres -- our site was  
12 50-acre cells and 250 acres.

13 DR. MOCK: One square kilometer.

14 MS. MILLER: Okay, yeah. I'm sorry. One square  
15 kilometer.

16 MS. FOLEY GANNON: You can speak too. You're  
17 sworn.

18 MS. MILLER: Yeah, you can jump in.

19 DR. MOCK: Basically, the scale of the model from  
20 the wildlife agencies is one square kilometer. Well,  
21 we're assessing at 50-acre cells.

22 MS. FOLEY GANNON: And when did you do the  
23 desktop analysis?

24 MS. MILLER: That was done in late 2009 early  
25 2010.

1 MS. FOLEY GANNON: And when was the field work  
2 done in the protocol level surveys?

3 MS. MILLER: March through May 2010.

4 MS. FOLEY GANNON: And when did you make this  
5 determination about where -- the habitat assessment and  
6 where these lines should be drawn differentiating the  
7 quality of the habitat?

8 MS. MILLER: We did it during the surveys, but we  
9 produced it in June and July and it was produced into  
10 the -- provided in the translocation plan in July.

11 MS. FOLEY GANNON: And at the time that you were  
12 drawing these lines, what was the -- what were you  
13 anticipating would be the main purpose of having this line  
14 drawn showing where the high quality habitat was, the  
15 medium quality habitat and the lower quality habitat?

16 MS. MILLER: It was to be used by us and the  
17 agencies in determining the translocation area,  
18 suitability and appropriate use of those areas

19 MS. FOLEY GANNON: So if I recall correctly, the  
20 translocation plan had a provision -- or the draft  
21 translocation plan has a provision in it that a tortoise  
22 can only be moved to an area that has equal or higher  
23 quality habitat, is that right?

24 MS. MILLER: That's correct.

25 MS. FOLEY GANNON: And so you were attempting to

1 have ground truth factual information that you could make  
2 that assessment to ensure that you were going to comply  
3 with that, was that the intent?

4 MS. MILLER: Yes, and that was required as part  
5 of the translocation plan.

6 MS. FOLEY GANNON: And so you did this also  
7 similar type assessment on the ground for the proposed  
8 translocation areas?

9 MS. MILLER: Yes. All of the areas had the same  
10 assessment done at the same time or during -- we did the  
11 site in March through April and then April through the end  
12 of May were the translocation and control sites.

13 MS. FOLEY GANNON: And when you -- again, when  
14 you draw this line, did this line set the mitigation  
15 requirements for the project disturbance areas?

16 MS. MILLER: Not when we were drawing the line.  
17 It was not part of the plan -- part of the assessment.

18 MS. FOLEY GANNON: And I assume, because the  
19 Scenarios 5.5 and 6 weren't proposed until last week, they  
20 certainly -- this language certainly wasn't drawn to be  
21 able to determine a new boundary line for the project, is  
22 that correct?

23 MS. MILLER: That's correct.

24 MS. FOLEY GANNON: So the boundary line that is  
25 proposed in 6 and is part of 5.5 was based upon your best

1 professional judgment about the habitat on the site, is  
2 that right?

3 MS. MILLER: Yes.

4 MS. FOLEY GANNON: Thank you. I will make them  
5 both available for cross-examination.

6 HEARING OFFICER KRAMER: Staff.

7 STAFF COUNSEL ADAMS: Yeah. Does the hearing  
8 officer have an interest in getting all the biological  
9 witnesses up at the same time or do you want to --

10 HEARING OFFICER KRAMER: Maybe perhaps staff and  
11 the applicant to be made available to the intervenors?  
12 Let's see, we have Mr. Cashen from the intervenors.  
13 Anyone else?

14 MS. BASOFIN: Mr. Aardahl.

15 HEARING OFFICER KRAMER: Mr. Aardahl. Mr.  
16 Aardahl, are you on the phone?

17 MR. AARDAHL: I'm here.

18 HEARING OFFICER KRAMER: Are you proposing a  
19 panel of all of the --

20 STAFF COUNSEL ADAMS: We could. I was just  
21 offering it, if you -- in the past you've said you thought  
22 it was more efficient. And I'm all for efficiency at  
23 midnight.

24 (Laughter.)

25 MR. RITCHIE: Mr. Kramer, I do have some specific

1 cross-exam for applicant's witnesses. And it might be  
2 easier to take care of that now just given that they have  
3 just testified.

4 HEARING OFFICER KRAMER: Well, it may be a  
5 situation where the staff witnesses will want to answer  
6 the same questions. So why don't we just have everybody  
7 conduct the direct examination of their witnesses and then  
8 we'll open them up as a panel to be questioned by the  
9 group.

10 So did you have any direct examination of your  
11 witness, Mr. Adams?

12 STAFF COUNSEL ADAMS: We do, yeah.

13 This is Mr. Huntley, Mr. White. Both of whom  
14 have been sworn.

15 In the past, we've also included other agency  
16 folks. I don't know, Chris Otahal is here. Becky Jones.  
17 Becky, are you still on?

18 Any other agency representatives on the phone?

19 DIRECT EXAMINATION

20 BY STAFF COUNSEL ADAMS:

21 Okay, well, then I'll just direct a few questions  
22 to Energy Commission witnesses. Do you want to both  
23 identify yourselves for the reporter.

24 MR. WHITE: Scott White, Energy Commission staff.

25 MR. HUNTLEY: Chris Huntley, Energy Commission

1 staff.

2 STAFF COUNSEL ADAMS: Did the two of you prepare  
3 the biological resources section of the addendum to the  
4 Supplemental Staff Assessment.

5 MR. WHITE: Yes, he did.

6 MR. HUNTLEY: Yes.

7 STAFF COUNSEL ADAMS: And I don't think we've  
8 identified that yet, but I believe it would be Exhibit  
9 317. Is the testimony in that section of the addendum  
10 true and correct to the best of your knowledge?

11 MR. HUNTLEY: It is.

12 MR. WHITE: Yes, it is.

13 STAFF COUNSEL ADAMS: And do you have any  
14 additions to it at this time?

15 MR. HUNTLEY: No, I don't.

16 MR. WHITE: No, we don't.

17 STAFF COUNSEL ADAMS: Could you very briefly  
18 summarize the content of it?

19 MR. HUNTLEY: Certainly. Not to rehash  
20 everything that the applicant has just said. Both  
21 Scenario 5.5 and Scenario 6 are entirely within the  
22 footprint of the proposed project as we analyzed in the  
23 SSA.

24 As identified by the applicant, the impact  
25 acreages are approximately 26 and 32 percent reduction in

1 the project size. They identified the tortoise numbers  
2 for the proposed project. It's roughly 93 using the Fish  
3 and Wildlife formula with 57 live tortoises detected on  
4 the site, 22 for Scenario 5.5, utilizing the Fish and  
5 Wildlife Service formula for adults and juvenile  
6 tortoises. And then Scenario 6 has approximately 4  
7 tortoises.

8 An important distinction is approximately 107  
9 tortoises require translocation for the proposed project  
10 versus 13 for Scenario 5.5, and roughly 5 for Scenario 6.  
11 So this decreases the amount of tortoises that are handled  
12 or require translocation on the proposed project site.

13 It's also important to note that staff does agree  
14 that the reduced project acreages increases the size of  
15 the linkage area and has subsequent reduction and impacts  
16 to Bighorn Sheep, eagles, foraging habitat for many other  
17 species.

18 We also identified that for the -- pardon me, for  
19 Scenario 5.5 and Scenario 6, that we revised the  
20 significance conclusion for cumulative impacts to Mojave  
21 Fringe-toed Lizard to less than significant. And this is  
22 primarily due to the proposed 223 foot buffer that's  
23 identified or required on the north and southern side of  
24 the BNSF railway and adjacent to Interstate 40, as  
25 required for transportation Condition of Certification 7.



1           We also -- an important consideration that we  
2 identified in the addendum is that translocation to the  
3 northern linkage area, or the area north of the proposed  
4 project, has been identified as a potential consideration  
5 for the reduced acreage alternatives for any tortoise  
6 located within 500 meters of the border.

7           As I identified in the proposed project, staff  
8 believes that the Conditions of Certification would reduce  
9 impacts to the species on site to less than significant  
10 and will comply with CESA.

11           Scott would like to talk about plants. I'll  
12 leave that to you.

13           HEARING OFFICER KRAMER: Before you do that, did  
14 you say the Fringe-toed Lizard impacts were now  
15 insignificant?

16           MR. HUNTLEY: We considered them less than  
17 significant or not cumulatively considerable is a better  
18 way, for the Cumulative Impact Analysis. For the proposed  
19 project that we identified cumulative impacts of that  
20 species is cumulatively considerable.

21           However, in light of the buffers required along  
22 the BNSF right of way and Interstate 40, we felt that  
23 there would be enough habitat that it would at least allow  
24 gene flow to occur between populations to the east and to  
25 the west. On the proposed project, we didn't believe that

1 was the case and so we considered that impact to be  
2 cumulatively considerable to move it.

3 HEARING OFFICER KRAMER: Okay, but there was  
4 never a direct significant impact?

5 MR. HUNTLEY: There is a significant impact, but  
6 it can be mitigated with the Conditions of Certification  
7 proposed for the SSA.

8 HEARING OFFICER KRAMER: Go ahead, Mr. White.

9 MR. WHITE: I don't think I have anything to add  
10 to the applicant's testimony on botany.

11 HEARING OFFICER KRAMER: Okay. Mr. Otahal, did  
12 you have anything to add?

13 MR. OTAHAL: Yes. Just briefly. I mean, the  
14 positive changes to basically the whole suite of plant and  
15 animals have already been documented by the other folks.  
16 So I won't really get into that.

17 And I just wanted to note that, you know, given  
18 the order from the Commissioners, our main goal was to  
19 address tortoise impacts, and also to address sheep.  
20 Those were the two quote unquote issues that were brought  
21 up.

22 And I think in consultation with the other  
23 wildlife agencies, BLM working with Fish and Wildlife  
24 Service, Fish and Game and with CEC, we basically achieved  
25 that goal, I believe.

1           And in addition, there have been all these other  
2 positive aspects to the whole suite of species that have  
3 been documented here already.

4           The other thing I wanted to point out is that  
5 there is a general consensus among all the wildlife  
6 agencies on this 5 to 1 line. I'm not aware of any  
7 dispute among the professionals in the wildlife agencies  
8 with this line. I believe we have all come to agreement  
9 on that, which was the basis of our analysis.

10           HEARING OFFICER KRAMER: Which line is that  
11 again?

12           MR. OTAHAL: It's the line that was utilized to  
13 define the scenarios. So it was the line that Ms. Miller  
14 was talking about that was developed to basically  
15 delineate between the 5 to 1 mitigation areas and the  
16 areas that would be mitigated at a lower ratio. So  
17 basically, the line that delineates the very high quality  
18 habitat and the lower habitat quality.

19           HEARING OFFICER KRAMER: Would it be fair to say  
20 it's the northern boundary of Scenario 6?

21           MR. OTAHAL: Yes. It's the northern boundary of  
22 Scenario 6. And in 5 you can see the kind of darker pink  
23 shades. An that's where there's some intrusion into that  
24 5 to 1 or high density tortoise habitat. And basically  
25 that was a way of trying to balance megawatts with the 5

1 to 1, so that the -- Scenario 6 is basically a strictly  
2 avoid all of the 5 to 1 habitat. And then the Scenario  
3 5.5 was okay.

4 If we are taking megawatts into consideration,  
5 where are some places that we could give a little bit  
6 give. And then this was run through Fish and Wildlife,  
7 Fish and Game, and BLM, and also taking into consideration  
8 discussions with CEC at the workshop. And this was kind  
9 of a compromise scenario.

10 HEARING OFFICER KRAMER: Question for staff. In  
11 calculating the compensation land acreages. And in the  
12 5.5 Scenario, did you apply the 5 to 1 ratio to the land  
13 that's to the north of that boundary line?

14 MR. HUNTLEY: Yes, sir, we did.

15 HEARING OFFICER KRAMER: Thank you.

16 Okay, applicant's witnesses.

17 MR. RITCHIE: We're the intervenors over here --

18 HEARING OFFICER KRAMER: I'm sorry.

19 (Laughter.)

20 HEARING OFFICER KRAMER: All right, it's late.

21 MR. RITCHIE: Mr. Kramer, I really would like to  
22 actually conduct cross now that we have staff and  
23 applicants. You know, I realized you wanted go through  
24 all the direct testimony. It's nearly 12:30 now, and I  
25 realize we're trying to move forward, but I'm having a

1 hardy enough time keeping one witness in my, as opposed to  
2 five. And the further distance in both time and the  
3 number of witnesses that we add to this panel makes the  
4 cross-examination that much more difficult.

5 HEARING OFFICER KRAMER: Okay. Well, and given  
6 that you would be inconveniencing your own witnesses, I  
7 suppose then we can't -- or we can certainly let you take  
8 the heat for that, if there is any heat.

9 MR. RITCHIE: Unless, Mr. Cashen really wants to  
10 jump in here, I think it would make sense for me to  
11 proceed with some cross-exam.

12 HEARING OFFICER KRAMER: Okay, go ahead then,  
13 realize of course, that you can ask a question to one of  
14 the panelists directly, and the others are allowed to  
15 chime in if they feel they have something to add.

16 MR. RITCHIE: I understand that folks enjoy  
17 chiming in.

18 (Laughter.)

19 CROSS-EXAMINATION

20 BY MR. RITCHIE:

21 So Ms. Miller, first I'd like to ask about a  
22 couple issues in your -- I don't know if it's better to  
23 classify it as testimony from September 13th or the  
24 declaration from September 13th.

25 On page 2 in paragraph 5 of that, the first

1 sentence you say was that, "URS performed desktop habitat  
2 modeling to assess habitat..." And then again in  
3 paragraph 6, you said that, "Data was prepared by URS for  
4 the desktop habitat modeling..."

5 Now, you stated in your oral testimony that that  
6 was an inaccurate use of wording. You didn't actually  
7 perform desktop habitat modeling, correct?

8 MS. MILLER: That's correct.

9 MR. RITCHIE: So now -- and I apologize, this  
10 isn't in the record, I don't believe, but Sierra Club did  
11 actually submit a data request asking for support for  
12 those modeling efforts and didn't get a response providing  
13 data supporting that, because apparently there was no  
14 modeling.

15 And then we did file a motion to compel. In  
16 response to that, we were told that Sierra Club appears to  
17 be claiming that the only way the applicant could have  
18 evaluated the quality of the Desert Tortoise habitat on  
19 the site is by following some unspecified habitat modeling  
20 effort.

21 Based on those errors, is it maybe apparent why  
22 we thought that might be the case and why we might have  
23 included that in our are data requests?

24 MS. MILLER: Like I said, I apologize for the  
25 mixed words, when we were describing be the assessment.

1 In a sense, a model could be used as the analysis as well,  
2 and we were using it kind of interchangeably, and that was  
3 incorrect.

4 So I understand the request. And we did use the  
5 data -- the layers, such as the topography and soils and  
6 all of that in our analysis on -- you know, in GIS and on  
7 the ground, but we did not create a model, you know, like  
8 a habitat, or like air quality type of model in that  
9 sense.

10 MR. RITCHIE: And that discrepancy wasn't cleared  
11 up until Friday, correct, when it was finally responded to  
12 in our motion to compel, is that correct?

13 MS. FOLEY GANNON: I don't think that's actually  
14 an accurate characterization. I think we responded to the  
15 request to provide the information that had been used as  
16 part of this model analysis. And so the way that the word  
17 model was being used was as an analysis as Ms. Miller has  
18 just described. And we provided all the data that was  
19 used as part of that analysis.

20 MR. RITCHIE: Well, I --

21 MS. FOLEY GANNON: When we got your motion to  
22 compel and we were responding to it -- and after we  
23 responded to it, we thought okay, I guess what they're  
24 saying is -- because you keep saying where is the end  
25 product. We said okay, there's -- apparently, you think

1 that there has to be an end product, because what we were  
2 describing was how he drew a line between high-quality  
3 habitat and lower-quality habitat. And we didn't have an  
4 end model. And that's what we were trying to explain.

5 So I think it was just, there was a  
6 miscommunication, which hopefully is now cleared up.

7 MR. RITCHIE: And then Ms. Miller turning back to  
8 your testimony. I believe on page 12, on paragraph 32,  
9 you had noted that the impacts to the tortoise under  
10 Scenario 2, you note that there were two juvenile  
11 tortoises were observed. And just for the clarity in the  
12 record, it actually should be 3 juvenile tortoises that  
13 were observed in Scenario 6, correct?

14 DR. MOCK: I believe that is correct.

15 MS. MILLER: That is correct.

16 MR. RITCHIE: And so I'm curious the table then  
17 on the next page, which also shows juvenile tortoise, is  
18 that -- does that also need to be modified where your  
19 calculations -- the inaccuracy carried through to that  
20 table?

21 MS. MILLER: Yes. And staff's table is correct.  
22 And Chris Huntley and I have had -- Chris Huntley had gone  
23 over how he did the calculations for the juveniles and  
24 subadult calculations based on the Fish and Wildlife and  
25 the Turner estimates. And when I followed up with that, I



1 put in the incorrect numbers on that final table.

2 So, yes.

3 MR. HUNTLEY: And one important consideration is  
4 when you apply some of these formulas, you end up with  
5 zero values and things like that. And if you just leave  
6 the zero value in for the lower confidence level, for Fish  
7 and Wildlife formula, you multiply anything by zero, you  
8 start ending up with zeros. So we highlighted that in  
9 some of the text in the Staff Assessment addenda.

10 But it's all within the range of the tortoises we  
11 would expect to find. So that's why the juvenile tortoise  
12 estimates is actually lower than what was actually found.  
13 They found 3 juvenile tortoises.

14 MR. RITCHIE: And that brings up a point, that  
15 was somewhat confusing to me. So we -- the estimates are  
16 there to try to attempt to predict the juvenile tortoises  
17 that are on site based off of the adult tortoises that are  
18 observed, correct?

19 MR. HUNTLEY: Yes, it is.

20 MR. RITCHIE: And that formula, as you pointed  
21 out, starts to breakdown as you have very few adults  
22 observed.

23 MR. HUNTLEY: That's right.

24 MR. RITCHIE: Now, am I correct to you in that  
25 the estimate is that about 30 percent to 50 percent of the

1 adults on a population will be --

2 MR. HUNTLEY: The total population is 30 to 50  
3 percent of the total population.

4 MR. RITCHIE: So the juveniles make up 30 to 50  
5 percent of the total population?

6 MR. HUNTLEY: That's right.

7 MR. RITCHIE: So if we were applying that model  
8 in the other direction, and we have three actual  
9 observations of juvenile tortoises, is it potentially  
10 predicted by that model that we should see a total  
11 population that's more -- that's at the higher range of 6  
12 to 9 adult tortoises?

13 MR. HUNTLEY: Well, that's why the range goes  
14 from zero to 10. And unfortunately when you come into  
15 these small sample sizes, you get a lot of variation.

16 By that same token, that would mean they had a 75  
17 percent detection rate of juveniles on their project site,  
18 which is typically not found.

19 And it's an interesting anomaly. I think we've  
20 captured the spirit of a number of tortoises that are on  
21 the site. But, yes, it is a little bit challenging when  
22 you work with small and low numbers on these formulas.

23 DR. MOCK: You have to understand when you're  
24 working with very small numbers when you're talking less  
25 than 10, that you have often will get a skewed sex ratio

1 to where even you may have zero juveniles, because you  
2 have all males. So that's a concern also.

3 MR. RITCHIE: And I understand the statistical  
4 models are tough on this point. And I'm a little  
5 concerned though that the conclusions that were made were  
6 based off of the modeling efforts, as opposed to what was  
7 actually observed on the site.

8 I believe in both the Staff Assessment and in the  
9 applicant's testimony, the accepted number of juveniles on  
10 site was 1 to 2 moving forward. And that's -- while I  
11 understand that the habitat could support 1 to 2. It  
12 could also be 3. So the range is obviously  
13 underestimating there, because we've seen 3 on the site  
14 there.

15 MR. HUNTLEY: And then if you read the rest of  
16 the Staff Assessment, when you get into the analysis and  
17 you look at the summary of tortoises, we tried to  
18 accommodate for that. And you notice it says "requiring  
19 translocation", I believe we had five tortoises requiring  
20 translocation or potentially. So we tried to capture that  
21 number.

22 And recognizing that that number could be lower,  
23 that number could be higher depending on the range of  
24 what's there. So again, when you're dealing with low  
25 numbers, it is a little bit touchy.

1 MR. RITCHIE: And so that discrepancy then you  
2 also recognize that the number of adult tortoises observed  
3 on the site could be much greater than one. And I believe  
4 that is shown in the range.

5 MR. HUNTLEY: That's right. That's what the 95  
6 percent confidence level is for. And I believe that when  
7 you have a low tortoise density over an even larger area,  
8 it becomes even more problematic. And when I was talking  
9 to the Fish and Wildlife Service about that, it challenges  
10 the model in really load tortoise density areas.

11 MR. RITCHIE: And then this brings me to my  
12 broader point. And I think we discussed this to some  
13 degree in the workshops before, is that the 2010 survey  
14 and the dots on the map that we have, those really are  
15 just rough estimates of where tortoise -- well, they're  
16 not rough estimates. They're where tortoises were  
17 observed. But it's difficult to make any conclusions on  
18 whether or not a particular tortoise is at that same spot  
19 today versus when that survey was done, correct?

20 MR. HUNTLEY: That's true.

21 MR. RITCHIE: So no, Ms. Miller, I would like to  
22 go back to this delineation line of between the high  
23 quality habitat and the medium quality habitat.

24 You stated that that was originally prepared as  
25 Figure 9 for the translocation plan for the purposes of

1 comparing it to the relocation sites, correct?

2 MS. MILLER: The site to the relocation sites,  
3 yes.

4 MR. RITCHIE: And so essentially, what you were  
5 saying is if we look at DWMA 1, we can characterize that  
6 as A, B, or C. And then we can look at the site and  
7 characterize that as A, B, or C. And what we're really  
8 looking for is does A equal A, does B equal B. There's no  
9 qualitative assessment for what that habitat means, as far  
10 as a numbers based or a model based assessment.

11 MS. MILLER: So it's a qualitative assessment of  
12 that, right? So, yeah A would -- if the site quality is  
13 high, and you want to call that A, then the -- in the site  
14 quality the DWMA quality is high, that would equal A.  
15 That's how they matched up.

16 MR. RITCHIE: My point is it was never  
17 designed -- when you originally designed it, it wasn't an  
18 objective measure of habitat quality. It was a  
19 comparative measure for other sites, correct?

20 MS. MILLER: It was an objective -- it was an  
21 objective measure between the different sites, so we  
22 looked at all of the factors on the site, and then we  
23 looked at all the same factors on the DWMA's and on the  
24 control sites. And we compared that directly across the  
25 different areas.

1 MR. RITCHIE: And in doing that, that was a  
2 measure of habitat quality?

3 MS. MILLER: Yes.

4 MR. RITCHIE: Do you recall on August 18 Ms.  
5 Blackford stated that -- and this is in the transcript of  
6 August 18th on page 337, quote, "Habitat quality cannot  
7 truly be measured at this time. I think that's a huge  
8 misconception. What we're looking at is looking for  
9 habitat, those most similar to the project site.

10 MS. MILLER: Or better. I agree with that. I  
11 mean, what we're looking at is what the habitat is on the  
12 site. And she also mentioned that the difference between  
13 what a human expects as good quality habitat and what a  
14 tortoise looks at as good quality habitat can be very  
15 different. And it just depends on the actual location.  
16 What we can do is look at, you know, the basic  
17 characteristics of the forage and the soils and the  
18 burrowing capacity of the soils for the tortoise to use  
19 and determine that kind of habitat quality across the  
20 different -- like the site and the control areas and the  
21 translocation areas.

22 MR. RITCHIE: So just to be clear, when you  
23 started off that statement, you said you agree with Ms.  
24 Blackford's statement that habitat quality cannot truly be  
25 measured at this time.

1 MS. MILLER: I don't think it can be measured in  
2 like anytime in like a solid level. It's a pretty  
3 subjective thing as well. You know, it's difficult to  
4 define it across the Board.

5 MR. RITCHIE: So is it fair to say then that that  
6 delineation line is subjective?

7 MS. MILLER: TO a degree, yes.

8 MR. RITCHIE: Because it's attempting -- what  
9 that's attempting to do is measure habitat quality and  
10 define habitat quality. And you've just told me that  
11 that's -- on one hand you've told me it was objective and  
12 on the other hand you told me it was subjective.

13 MS. MILLER: It's a professional judgment. You  
14 know, it was our best professional judgment of the habitat  
15 quality on each of those sites.

16 MR. WHITE: Staff would like to weigh in on this  
17 just briefly, if you don't mind

18 MR. RITCHIE: Sure.

19 MR. WHITE: I guess I'd just like to emphasize,  
20 as Mr. Otahal already mentioned, the line that we're  
21 talking about, the arching shaped line that defines the  
22 northern boundary of Scenario 6. In staff's mind and in  
23 the minds of the BLM, the California Department of Fish  
24 and Game and the U.S. Fish and Wildlife Service biologists  
25 have been involved in this project, in terms of

1 calculating the mitigation ratios for tortoise habitat.  
2 That arching line replaces the line that we applied  
3 previously, which was the boundary line between Phase 2  
4 and Phase 1 of the project.

5           And while we acknowledge that there's a certain  
6 level of subjectivity to defining that arching line, in  
7 terms of tortoise habitat, it's much less subjective than  
8 the prior line that we were using. So we view it as a  
9 substantial improvement on reflecting the biological  
10 resources and the mitigation ratios that would be  
11 required.

12           And beyond that, we'd like to add the point that  
13 this question of habitat quality, in terms of the  
14 mitigation ratios and the design of Scenario 5.5 and  
15 Scenario 6 is probably sort of an academic discussion.

16           The fact is that the great majority of the  
17 tortoises and tortoise burrows and tortoise signs that  
18 were located during the field work are to the north of  
19 that line. And that's pretty well illustrated. I'm  
20 looking at Figure number 10 from the scenario -- well,  
21 this happens to be Scenario 5, which doesn't exist  
22 anymore. But you've seen these maps with the tortoise  
23 sign.

24           So we accept that line as the best available  
25 place to delineate the high density versus the moderate



1 density tortoise occupied habitat on a site, and to define  
2 these mitigation ratios.

3 MR. OTAHAL: I'd like to chime in a little bit.

4 MR. RITCHIE: Let me just follow up on one point  
5 on that, and then if we could remember your point, Mr.  
6 Otahal.

7 So you mentioned that, you know, looking at that  
8 map of the tortoise dots essentially was, I think -- the  
9 way I heard you just now was that was kind of the primary  
10 factor that you were looking at in where the tortoise --  
11 and we're going to draw the line to avoid that.

12 And I believe that that was also in the response  
13 in that -- to our motion to compel was that URS quote drew  
14 the line between high quality and medium quality based  
15 upon the location of Desert Tortoise sitings and the  
16 Desert Tortoise locations. I think maybe that's supposed  
17 to be Desert Tortoise burrows.

18 And again, my concern here is that we're creating  
19 this line. And I think a lot of people saw this line in  
20 the document and are jumping on board with it, but it's  
21 not something that was created for the purpose of  
22 delineating this habitat. It doesn't appear to be  
23 delineated on -- for one, the USGS map, which is Figure  
24 number 3 in the Desert Tortoise translocation plan. And  
25 that's the modeling effort that shows the high quality,

1 you know, .9 habitat throughout the project site.

2           And I'll get to this in a little bit, but as far  
3 as providing a roadmap for the Commission, we also don't  
4 see any of this delineation in any of the soils maps, in  
5 any of the vegetation maps and any of the data. The only  
6 map that I see that creates any justification for that  
7 line. And from what I'm hearing from people is what that  
8 line was created by is looking on the Desert Tortoise  
9 location map and doing essentially what was done at the  
10 workshop last week of just kind of drawing a finger line  
11 across that.

12           And our concern is that, that's not taking into  
13 account the Committee's concerns about avoiding high  
14 quality Desert Tortoise habitat. The tortoise that aren't  
15 present on that site during the 2010 survey, there are 3  
16 juveniles down there. We may have missed, as Mr. Huntley  
17 said, 75 percent of the adults based on the formula or  
18 it's an anomaly.

19           MR. HUNTLEY: That's not actually what I said.

20           MR. RITCHIE: I apologize for mischaracterizing  
21 it, but my point being is that we shouldn't see three  
22 juveniles and one adult in a general statement. I believe  
23 that was close to what you said.

24           My greater point being, there are juveniles down  
25 there. Juveniles could be signs of repopulating the area,

1 and we don't have science based information from what I  
2 see in the record to make this determination. And so I  
3 guess back to your question, having provided that road  
4 map.

5 Mr. White, what other data were you looking at  
6 and were all the other resource agencies looking at when  
7 they made this determination that this line was  
8 appropriate?

9 MR. WHITE: We were looking at these maps. The  
10 maps represent where live tortoises were found and where  
11 the burrows were found, which I think might be in a  
12 certain way more indicative of tortoise density in any  
13 given habitat, seeing as the tortoise themselves, of  
14 course, move around, but the burrows don't move around as  
15 much.

16 So sorry. It is late.

17 (Laughter.)

18 MR. WHITE: And as I said, this line replaces a  
19 previous line that was strictly arbitrary with regard to  
20 tortoise habitat or tortoise occupancy. And for that  
21 reason, you know, staff does accept that this is, despite  
22 a certain amount of subjectivity in producing it, this  
23 line represents the best representation we have now of  
24 delineating the highest density occupied Desert Tortoise  
25 habitat in the original project area from the more

1 moderate density occupied habitat. I don't think there's  
2 really anything more to be said about it than that.

3 MR. OTAHAL: Now, I would like to make a point  
4 that I was going to be making. In a way this line -- I  
5 mean, academically, you can argue around in circles  
6 forever, depending on what kind of different experts will  
7 chime in on this. But I think the bottom line that you  
8 really need to look at is that by utilizing this line,  
9 based on the numbers of tortoises, we have a 98 percent  
10 reduction in impacts on tortoises, based on the numbers.  
11 So I don't know where else we want to go.

12 MR. RITCHIE: So when you say 98 percent, we're  
13 speaking of assuming that all the tortoises in the 2010  
14 survey are still where they are, and we've drawn that  
15 line --

16 MR. OTAHAL: Based on the best available data  
17 that we have, we have documented that we have reduced  
18 impacts by 98 percent.

19 MR. RITCHIE: And so the best available data that  
20 we have is on 2010 survey of Desert Tortoises that doesn't  
21 include a delineation of soil quality, that doesn't  
22 include a delineation of vegetation --

23 MR. OTAHAL: It includes how many individuals we  
24 are anticipating to impact.

25 MR. RITCHIE: And that's the best available

1 information we have to determine where to put the 4,000  
2 acre project is one survey that shows individual  
3 identified tortoises and burrows.

4 MR. OTAHAL: And also, I mean, this is consistent  
5 with the data that was collected in 2007 and 2008, which  
6 aren't the best data, because they were based on  
7 subsamples. But they are consistent in identifying the  
8 higher density areas. So we actually have 3 years of data  
9 that we're looking at, but we are using the best data set,  
10 which is the complete data set from 2010.

11 MR. RITCHIE: And I had actually had a brief  
12 question about that. You mentioned the 2000 data set.  
13 And again this was information that we just -- or 2007  
14 data set -- information that we just received on Friday.

15 Are you familiar, either Dr. Mock or Ms. Miller,  
16 with the 2007 to February 2010 map that showed the  
17 tortoise burrow and observed tortoise locations?

18 MS. MILLER: I think so. We provided it on  
19 Friday. Yes.

20 MR. RITCHIE: And I believe this was sent out to  
21 the service list. We haven't introduced it as an exhibit.

22 MS. FOLEY GANNON: And we have copies of it here  
23 if people would like one.

24 MS. MILLER: I first would like to go back to  
25 your statement -- or your question earlier. You said --

1 you asked about the Figure 3 and why the line doesn't show  
2 up on Figure 3 and how our assessment isn't on there.

3 Like we said before, that model was done at a  
4 much larger regional scale as compared to the project site  
5 assessment that was done.

6 And so it wouldn't show that kind of gradation,  
7 because it's just not at that level. Also, we didn't just  
8 look at tortoise. I mean, tortoise locations and burrows  
9 were a major part of the assessment. But we did look at  
10 soils and the different types of substrata between the  
11 lower of the south and then north of the project. We  
12 looked at vegetation, forage, all of the different  
13 characteristics. So it wasn't only tortoise, but it  
14 definitely -- all of those things correlated with the  
15 number of tortoise and sign that were detected.

16 MR. RITCHIE: And I'll get to those other  
17 characteristics in a minute. Going back now to the 2007  
18 map and comparing that to the other project map. And we  
19 can look at, I believe, any of the scenarios, 5.5 or 6,  
20 that showed Desert Tortoise burrows would be accurate to  
21 look at.

22 HEARING OFFICER KRAMER: Okay, which if we need  
23 to, down the road, figure out which map you're looking at.

24 MR. RITCHIE: Yeah, so -- and I don't -- have we  
25 introduce as an exhibit the Scenario 6? It's somewhere I

1 imagine.

2 HEARING OFFICER KRAMER: Well, they were passed  
3 out earlier and we will be labeling them.

4 MR. RITCHIE: So I'll refer to the map that --  
5 Scenario 6. And the one I said -- I'm looking at says  
6 with Desert Tortoise Burrows. And these are the triangles  
7 that show the various burrows.

8 HEARING OFFICER KRAMER: And where is that one  
9 located?

10 MR. RITCHIE: I think the Copy I'm looking at  
11 were the original Scenarios 1 through 6 that were  
12 proposed, but I also believe that in the most recent -- I  
13 am similarly inundated with papers.

14 MR. OTAHAL: I believe what the applicant  
15 docketed has the burrows on it too if that's what you're  
16 looking --

17 MR. RITCHIE: I believe this map is on several  
18 places.

19 MR. OTAHAL: Yeah. They're where the Scenario 6  
20 and the 5.5 was submitted by the applicants. They didn't  
21 have both showing the tortoises and also then the burrows.

22 MR. RITCHIE: Yes. So those are the ones I'm  
23 referring to.

24 Thank you, Mr. Otahal.

25 So now, Ms. Miller, in comparing those maps --

1 that map of the -- which I believe shows the 2010, Desert  
2 Tortoise survey reported burrows, correct?

3 MS. MILLER: Yes, it does.

4 MR. RITCHIE: Now you mentioned that this was the  
5 hundred percent survey. So this is as opposed to in 2007,  
6 it was, I believe, a probability survey or a proportional  
7 survey.

8 DR. MOCK: Subsample.

9 MR. RITCHIE: A subsample, okay. So it was --

10 DR. MOCK: Remember, we had 27,000 acres to  
11 survey, so we did a subsample.

12 MR. RITCHIE: So it was a less intensive effort  
13 in 2007 than in 2010.

14 DR. MOCK: It was a 30 percent coverage.

15 MR. RITCHIE: Okay. So my question then is Mr.  
16 Huntley just said the burrows done tend to go anywhere.  
17 If we look at cell 18, which is in the very southern  
18 section.

19 DR. MOCK: It's not quite true.

20 MR. RITCHIE: Well, let me finish my question  
21 first.

22 DR. MOCK: If you have burrows in major washes,  
23 you're going to lose your burrows after major storms.

24 MR. RITCHIE: Okay. So in the 2007 map, it  
25 indicates in cell 18, which is the southern end of the



1 project, there are several orange squares there, which  
2 connotate inactive tortoise burrows, correct?

3 MS. MILLER: Correct.

4 MR. RITCHIE: And those cells are not represented  
5 in the 2010 Desert Tortoise survey, correct?

6 MS. MILLER: Correct.

7 MR. RITCHIE: So those burrows went somewhere.

8 MS. MILLER: Yeah. And that's in the --

9 MR. RITCHIE: And your hypothesis is that they  
10 were washed out.

11 MS. MILLER: It's in the area where the stand is  
12 like sugar, as defined -- as described before. And those  
13 burrows don't last very long in that area, especially not  
14 even a major storm event. But some of the smaller storm  
15 events during the surveys that we saw, the burrows just  
16 they collapse and they're not viable in that area.

17 MR. RITCHIE: So did you take into account at all  
18 that in 2007 there were 10 or 11 burrows located in this  
19 area. And did you use that to consider where to draw this  
20 high quality habitat line based on the 2010 model?

21 DR. MOCK: We looked a lot of these burrows  
22 subsequently. And a lot of them we characterize as  
23 probably other animal burrows than tortoise at the time.

24 MR. RITCHIE: And those would be characterized as  
25 4 or 5 burrows, correct?

1 DR. MOCK: Most likely or not even tortoise  
2 burrows at all.

3 MS. MILLER: And also --

4 MR. RITCHIE: But those aren't depicted on the  
5 2010 survey modelling.

6 MS. MILLER: -- if we were looking at them as  
7 part of the habitat suitability or habitat assessment, it  
8 would still be low because it's in the sandy areas and  
9 they're inactive burrows. So it falls within that area.

10 If we were looking at the 207 data, that would be  
11 a valid statement.

12 MR. RITCHIE: But you weren't looking at the 2007  
13 data?

14 MS. MILLER: No, because it wasn't part of the  
15 survey. It wasn't asked of us to do that.

16 MR. RITCHIE: So then if we can now move on to  
17 the soils.

18 MR. CASHEN: I had a follow-up question related  
19 to a couple things we just heard just real quick.

20 First, if the sand is like sugar, why is it --  
21 why was it not mapped as potential Mojave Fringe-toed  
22 Lizard habitat?

23 And then the second question would be, the  
24 earlier testimony provided was that you did not dig any  
25 soil pits, and we know that Desert Tortoises dig burrows

1 down into the soil. They don't just put their head under  
2 the sand. So in a sense, the substraight, which I assume  
3 you're referring to is, you know, what you're stepping on  
4 with your feet, may be unrelated to the soil required for  
5 Desert Tortoise burrowing. If you could clarify that,  
6 that would be helpful.

7 Thank you.

8 MR. OTAHAL: Well one of the things that I would  
9 really like to clarify is that there's a lot of, you know,  
10 why did you not collect this data, why did you not collect  
11 those data. Those are non-standard things that are  
12 collected, in terms of doing tortoise surveys.

13 Tortoise surveys, you look at burrows, you look  
14 at the animals. The applicant followed the protocols,  
15 collected the data, collected the health data where they  
16 could, you can't collect all the health data, because you  
17 can't handle the animals, so there's going to be some  
18 missing.

19 So it's really, I think ingenious to come back at  
20 the end and go, well, you didn't collect, you know, X, Y,  
21 Z data, when that's not required.

22 MR. RITCHIE: I completely agree that it would be  
23 disingenuous to come back later and request other data,  
24 but these representations were made to us that this line  
25 was drawn based off of data, based off of information

1 collected on exactly the things that you just said  
2 shouldn't be collected.

3 MR. OTAHAL: That's right. And you have been  
4 provided those data, so what else do you want?

5 HEARING OFFICER KRAMER: Let me call time out  
6 here for the sake of our court reporter. And let's take  
7 a -- is five minutes enough, 10 bet?

8 Let's -- he's working hardest over there, because  
9 he has to write down everything we say regardless of  
10 whether it's interesting or useful.

11 (Laughter.)

12 HEARING OFFICER KRAMER: So we'll go off the  
13 record and we'll be back at 1 o'clock a.m.

14 (Thereupon a recess was taken.)

15 PRESIDING MEMBER EGGERT: We're back on the  
16 record. All right. So this Commissioner Anthony Eggert,  
17 I just wanted to provide a little bit of perspective,  
18 which I'm hoping will make the next several minutes,  
19 hours, however much longer we need to get through this  
20 evidentiary hearing.

21 From the Presiding Member's perspective, from my  
22 perspective -- I won't speak for Commissioner Byron -- I  
23 think the analysis that's been conducted on the Scenarios  
24 5.5 and 6 provide a very good basis for the Committee to  
25 sort of proceed with making a decision with respect to the

1 Committee order.

2           In other words, the specific impacts that the  
3 Committee order was asking, both the applicant to provide  
4 alternatives and the staff to provide initial assessment  
5 of those alternatives, the various impacts and the  
6 mitigation. I think, you know, we feel -- I feel that  
7 with both of those options before us, we have a good basis  
8 to move forward.

9           I would say, you know, where I'm interested in  
10 hearing from the parties, including the intervenors, is  
11 where you think that the Staff Assessment perhaps has  
12 gaps, holes, or if there's something that's not in there  
13 that the Committee should be considering, I think that's  
14 really where I think it would be most productive to focus  
15 your inquiry and any testimony you might have from the  
16 parties.

17           I mean, I would note, there was a comment about  
18 the fact that the impact to the tortoise was reduced by 98  
19 percent. By my calculation, that's approximately correct  
20 for Scenario 6. For Scenario 5.5, I've got about an 88  
21 percent reduction.

22           Now, there's some uncertainty with that. It  
23 could be 82 percent. It could be 78 percent. But you  
24 know, it's a pretty substantial reduction and I think  
25 we've got at least a suggested methodology for how we are

1 to think about some of that uncertainty. And that's  
2 provided with in the Staff Assessment as well.

3 So I think maybe just with that perspective, I  
4 guess I would ask that we proceed.

5 MR. RITCHIE: Thank you, Commissioner. And to  
6 that point, I guess first, I'd address one part about  
7 the -- quantifying 98 percent or 78 percent of what are  
8 the number of tortoise impacts. I think it is very  
9 important to be careful of how we're classifying, you  
10 know, reducing these impacts and whatnot. Just drawing  
11 that boundary line down is -- and avoiding the dots on the  
12 map from 2010 is not necessarily a straight-line reduction  
13 of avoiding those impacts.

14 You know, we've talked about edge effects and  
15 various other things. And we can get into a little bit of  
16 that. But you know, the habitat effects to this very  
17 important population of tortoise are still substantial.  
18 And while I don't like to continue to, you know, push on  
19 some of these issues at this late of a night -- in the  
20 night, you asked us to identify some gaps, and there have  
21 been representations made by the applicant on the  
22 delineation of this line, and assurances that those --  
23 that that line is based off of various data points and/or,  
24 you know, various considerations.

25 And from Sierra Club's perspective, there's still

1 gaps there. Up through Friday, we were still receiving  
2 information and data forms that we had asked for and  
3 hadn't seen before. And as we said before, originally  
4 this line was drawn to be a comparison to the receptor  
5 sites. It was never drawn for purposes of creating a  
6 boundary to decide, you know, which tortoises will live  
7 and which will die, and which ones -- and what this  
8 habitat is high quality or not high quality. It was -- it  
9 was just kind of a this kind of looks like that it. And  
10 so we've never been required to go into this level of  
11 analysis and dig into the meaning behind this line, until  
12 we just heard about it for the first time when Scenario 6  
13 was proposed.

14           And so there is a reason that we're digging into  
15 this information. And we believe we really are exploring  
16 gaps that are important gaps and that should be explained.

17           And again, this goes to the point of, you know,  
18 how much information do we need and can we collect. We  
19 don't believe that there's been enough time for this  
20 project to make the conclusions that are being made about  
21 the high quality habitat and where that delineation is.

22           And that's where this testimony is going towards.  
23 And so I'd appreciate your indulgence as we continue down  
24 this line for not too much longer, I hope.

25           PRESIDING MEMBER EGGERT: Okay, and I do

1 appreciate that. And I do want to just sort of not  
2 clarify, but maybe reassert that the fact that there is  
3 uncertainty associated with the delineation of these lines  
4 and that there's uncertainty associated with this specific  
5 estimations of impacts is something that's not lost on the  
6 Committee. So I just want to --

7 MR. RITCHIE: So, Ms. Miller, you stated in your  
8 September 13th declaration that the surveys consisted of  
9 surveyors walking the transcripts and noting for each  
10 approximately 50-acre cell, the location, weather, et  
11 cetera. He named various factors.

12 And one of those included habitat  
13 characterization. And in parenthesis you said based on  
14 soil, presence of native or non-native vegetation, cover  
15 of forage and evidence of disturbance. Is that accurate?

16 MS. MILLER: That's accurate.

17 MR. RITCHIE: And you said a few times that in  
18 determining the delineation line between high quality and  
19 medium quality habitat, that factors such as soil,  
20 presence of vegetation, forage or things that you  
21 considered in drawing that line, correct?

22 MS. MILLER: That's correct.

23 MR. RITCHIE: My question then is. And do you  
24 have Sierra Club Exhibit number 1022, by any chance? We  
25 distributed that on Sunday, I believe?



1 MS. FOLEY GANNON: I don't think we printed it  
2 out.

3 MR. RITCHIE: So what I'm having Mr. Basofin pass  
4 out and I provided a copy of this to the Commissioners are  
5 two different data sheets. And they're representative  
6 samples of data sheets that were provided to Sierra Club.  
7 The first one says DT up in the -- DT93. Oh, and for the  
8 record this Sierra Club Exhibit number 1022.

9 The first one says DT 93, up in the corner. It's  
10 a live tortoise encounter form. And this was provided to  
11 Sierra Club, I believe, in mid-August. And it was also  
12 part of -- it was Appendix A1 to the 2010 survey report.  
13 Does that appear to be an accurate statement of what this  
14 DT 93 data sheet is?

15 MS. MILLER: Yes.

16 MR. RITCHIE: And then the second data sheet,  
17 Sierra Club received this on Friday as part of the  
18 response to our motion to compel, where we asked for the  
19 data supporting the numbers that URS relied on to draw the  
20 delineation lines.

21 And this one says Calico Solar 2010 Desert  
22 Tortoise Protocol Transect Survey. So in reference to  
23 your statement on September 13th in paragraph 13, where  
24 you said the surveys consisted of surveyors walking the  
25 50-acre transects. As they recorded that data, is this

1 the data sheet, this type of data sheet, what they used?

2 MS. MILLER: This is the type of data sheet that  
3 filled in by the leader.

4 MR. RITCHIE: And so when you said that they  
5 noticed habitat characterizations, based on soil,  
6 presence, native or non-native vegetation, cover or  
7 forage, and evidence of disturbance. Where did they write  
8 that down?

9 MS. MILLER: They write it -- the intent was for  
10 them to write it in the notes in the data sheets. And  
11 then if they saw a Desert Tortoise, that it was further  
12 clarified or defined in the live tortoise encounter form

13 MR. RITCHIE: And so presumably for this cell  
14 number K18, the example that we're looking at, is there  
15 information on soil?

16 MS. MILLER: No.

17 MR. RITCHIE: And similarly vegetation, forage,  
18 none of that information is there.

19 MS. MILLER: Not in this cell.

20 MR. RITCHIE: So presumably there was also no  
21 Desert Tortoise in this cell.

22 MS. MILLER: Oh. There's no Desert Tortoise in  
23 this cell.

24 MR. RITCHIE: Okay. So do you have any idea what  
25 cell K18 looked like?

1 MS. MILLER: I do. We have the -- you also  
2 received the map of the cells, the survey cells that we  
3 surveyed and it corresponds to the cell number on the data  
4 sheet. The cells fell into a general area along with  
5 other cells. And so data was collected. If it wasn't  
6 collected by a particular surveyor, like for example this  
7 data sheet, it was reviewed across other data sheets and  
8 other cells to compare it or to record it that way.

9 And it was based on, you know, the observations  
10 of the 30 tortoise biologists that were on site.

11 MR. RITCHIE: And so you mentioned, just for  
12 reference sake, you mentioned the map that divides up the  
13 cells. Just so the record is clear on that one, I don't  
14 think that was actually labeled. Do you remember how it  
15 was delineated? I mean, I believe A was at the top, and  
16 they started going A, B, C, D. They started going down.  
17 That's the best we could make of it, but there was no key  
18 for where K18 is located.

19 MS. MILLER: No, there's no key. It went across  
20 the -- I think it was divided into 50-acre cells, the  
21 project site itself, into 50-acre cells approximately and  
22 labeled across the way, so that each cell had a unique  
23 identifier.

24 MR. RITCHIE: Right, but the map that was  
25 provided as part of 2010 Desert Tortoise survey didn't

1 actually have the cell labels on it, correct?

2 MS. MILLER: Right. And we provided that map  
3 in -- with these data sheets, I believe we did.

4 MR. RITCHIE: I don't believe I saw it, but it  
5 was --

6 MS. MILLER: I think we provided an incorrect map  
7 in that document or in that docketing.

8 MR. RITCHIE: So, okay, that's fine,

9 MS. MILLER: It's in that 2010 Desert Tortoise  
10 survey report, the map with the cells on it.

11 MR. RITCHIE: Right, but those cells aren't  
12 labeled.

13 MS. MILLER: But they're not labeled, correct.

14 MR. RITCHIE: Right. So in looking at K18 and  
15 trying to figure out where -- well, K18 is not a good  
16 example, because this doesn't have any information on it,  
17 but -- or it doesn't have any soil or vegetation  
18 information on it, but I wouldn't know which cell is K18.

19 MS. MILLER: Well, I do.

20 (Laughter.)

21 MR. RITCHIE: You do. Okay, that's --

22 MS. MILLER: South of the railroad tracks.

23 MR. RITCHIE: Okay. Well, and --

24 MS. MILLER: In the kind of western third of the  
25 project, south of the railroad tracks.

1           MR. RITCHIE: Okay, so you know that, but Sierra  
2 Club asked for that information. And as far as you know,  
3 it wasn't provided, either through inadvertence or  
4 something else.

5           MS. MILLER: It was meant to be provided. It was  
6 just the wrong map was chosen.

7           MR. RITCHIE: It was meant to be provided, but as  
8 of Friday when this data sheet and these -- there were  
9 several of these data sheets.

10          MS. MILLER: There were several blank data  
11 sheets. And that's kind of the point of collecting data.  
12 No data is still good data, because it show that there's  
13 no tortoise. We still collected data in each cell and we  
14 still surveyed that cell.

15          MR. RITCHIE: Right, but you didn't survey it for  
16 soil.

17          MS. MILLER: Because it was a adjacent or -- and  
18 it didn't identify on this data sheet, but it was adjacent  
19 to other cells and within an area that was consistent with  
20 other soil areas.

21          MR. RITCHIE: So every single one of those 50  
22 cells has a soils description on it that was recorded and  
23 compiled by URS to determine what the soil composition  
24 was?

25          MS. MILLER: No.

1           MR. RITCHIE: No. So you don't know whether the  
2 cell next to K18 actually was also identified and had a  
3 soil composition?

4           MS. MILLER: We know based on our observations in  
5 the field, and based on the best professional judgment of  
6 the surveyors in the field during those -- during the  
7 surveys that we conducted, and based on discussions. And  
8 a lot of the -- some of the data sheets don't have that  
9 information. But based on discussions with the other  
10 biologists, and when we were assessing the habitat. Like  
11 I said, we were out in the field doing these surveys and  
12 we were looking at the habitat on the ground. And so we  
13 were discussing while we were there, you know, this site  
14 had this cell or the next cell has this type of habitat  
15 and it's not high quality or not. You know, and so it  
16 wasn't always identified on the data sheet.

17           MR. RITCHIE: And when we're talking about these  
18 cells, just to understand the scale we're talking about, I  
19 believe you said it was one square kilometer. So it's one  
20 kilometer by one kilometer?

21           MS. MILLER: It was a 50-acres cell. Our cells  
22 are --

23           MR. RITCHIE: Does that -- I'm a lawyer, does  
24 that equal about one kilometer?

25           MS. MILLER: It's 450 meters across. 450 meters

1 by 450 meters.

2 DR. MOCK: A square kilometer is about 250 acres.

3 MR. RITCHIE: Okay, thank you.

4 DR. MOCK: And we surveyed at a level of 50-acre  
5 units.

6 MS. MILLER: Which was 450 meters across.

7 MR. RITCHIE: So that's a fairly large cell. And  
8 if data was missing for that, I mean, it's -- for each of  
9 those cells would you expect soils to be uniform across  
10 the entire cell? For instance, if there was a wash going  
11 through that cell?

12 MS. MILLER: No. It would be -- if there's a  
13 wash going through the soil, it would be a little  
14 different. But in general, the soils -- like we did not  
15 dig soil pits for that map for that sense. I mean, it  
16 wasn't that level of assessment of the soils.

17 MR. RITCHIE: Well, you know, it's not only that  
18 you didn't dig soil pits. You didn't record the data of  
19 what was on the surface of the soils either, correct?

20 MS. MILLER: We didn't record it on all of the  
21 data sheets.

22 MR. RITCHIE: So on your --

23 MS. MILLER: It was recorded on your --

24 MR. RITCHIE: -- September 13th declaration, you  
25 stated that quote "the demarcation between Sandy soils in

1 the south and the more rocky and cobbly soils was one of  
2 the factors which was used to draw the boundary line. So  
3 that demarcation is not recorded anywhere consistently in  
4 the data that you provided.

5 MS. MILLER: Not in the data sheets that's  
6 provide. It's based on the observations in the field.  
7 And based on walking the site and looking at the site and  
8 being able to walk along the habitat and see the  
9 difference in the soils in the substraight.

10 MR. RITCHIE: So this demarcation line between  
11 sandy soils and rocky soils, that's not recorded?

12 MS. MILLER: It's recorded on the maps and --

13 MR. RITCHIE: Which map?

14 MS. MILLER: At least on Figure 9.

15 MR. RITCHIE: Well, the Figure 9 doesn't show a  
16 soils delineation.

17 DR. MOCK: If the cell had a tortoise in it, the  
18 information was gathered.

19 MR. RITCHIE: Right, but there were --

20 DR. MOCK: And where we're delineating the high  
21 to medium habitat is the areas where there are tortoises  
22 present. And therefore, that data -- those data sheets do  
23 have that information.

24 MR. RITCHIE: And so when there are not tortoise  
25 present, there's no information that could be used to



1 evaluate the potential quality of Desert Tortoise habitat.

2 DR. MOCK: Well, most of those data sheets are  
3 south of the railroad. And those areas, the consensus  
4 was, that was very poor habitat to begin with.

5 MR. RITCHIE: So you're saying that most of the  
6 cells that are north of the railroad, but south of the  
7 boundary line for 6 had a tortoise located in them?

8 DR. MOCK: No. The cells associated with the  
9 line under question have tortoise associated with them.

10 MS. MILLER: No.

11 MR. RITCHIE: My concern is that we've drawn this  
12 line, and admittedly in Scenario 6, that line misses most  
13 of the live tortoise observations. I believe there was 1  
14 adult and 4 juvenile life tortoise observations.

15 So that's 4 data sheets that we have information  
16 on for soil, vegetation, cover, south of the boundary line  
17 that was drawn at 6, is that correct?

18 MS. MILLER: I'm sorry, can you repeat that.

19 MR. RITCHIE: So we stated that when a live  
20 tortoise was observed, there was a data sheet that did  
21 potentially have more information on soils and vegetation  
22 and whatnot.

23 But when a Desert Tortoise was not observed, that  
24 information was not taken down. And there were only four  
25 live tortoise observations, 3 juveniles, 1 adult, south of

1 the boundaries -- of the line that's now constituting the  
2 boundary for Scenario 6.

3 So that means of those -- all those cells down  
4 there in that southern California, there were 4 data  
5 sheets to give us an idea -- of recorded data sheets to  
6 give us an idea of what those soils, what the vegetation  
7 is, what the cover is, is that correct?

8 MS. MILLER: No, not entirely. There's four  
9 Desert Tortoise observation sheets. But there's on the  
10 data sheets -- like the one you have that's blank, also  
11 have areas for the burrows, scat, and carcass. And so  
12 data on that was collected. That's a general ID --  
13 identification of the soils and whether it's an old burrow  
14 or a older carcass. And then many of these have other  
15 data, other information in the notes.

16 MR. RITCHIE: But you indicated in your testimony  
17 that you considered soils and vegetation and cover, as a  
18 factor, and specifically a delineation of where those  
19 things changed as a factor in drawing this high quality  
20 medium high quality habitat. So I'm trying to understand  
21 where that data is.

22 MS. MILLER: It's based on the best professional  
23 judgment of our observations in the field.

24 MR. RITCHIE: So it's not recorded.

25 MS. MILLER: It's not recorded

1 MS. FOLEY GANNON: And I think she's explained  
2 this several times now.

3 MR. RITCHIE: And that's fine. We can move on.  
4 It's not recorded.

5 MS. FOLEY GANNON: Field observations.

6 MR. RITCHIE: So just one moment as I move on.

7 And then quickly, Ms. Miller, also you stated  
8 that forage in the south of the site is sparse, less than  
9 40 percent and further north surveyors recorded a higher  
10 density of forage, 70 percent or greater, correct?

11 MS. MILLER: Yes.

12 MR. RITCHIE: And similarly, that's not  
13 necessarily recorded. That's just an observation.

14 MS. MILLER: That's correct. And the botany  
15 surveys though also recorded some data, some level of  
16 forage, but that botany surveys weren't focused on that  
17 type of habitat assessment, but we did compare it.

18 MR. RITCHIE: And was that put in a map that was  
19 evaluated.

20 MS. MILLER: No.

21 MR. RITCHIE: And so it could have been, you  
22 know, less than 45 percent. It wasn't really measured.  
23 That was just a rough estimate, that 40 percent is about  
24 the cover.

25 MS. MILLER: Yeah.

1 MR. RITCHIE: And that could change based off of  
2 whatever wash was moving through or whatnot. It was just  
3 a rough north-south estimate.

4 MS. MILLER: A rough estimate in general of the  
5 area.

6 MR. RITCHIE: Okay. Just one moment, please.

7 So I guess just quickly for staff, Mr. Huntley  
8 and Mr. White, do you agree that these data on vegetation  
9 and soils were not recorded in the information provided by  
10 the applicant?

11 MR. HUNTLEY: Staff hasn't reviewed every data  
12 sheet provided by the applicant, but staff would like to  
13 point out that there is a clear shift in habitat and  
14 substraight north or above that line drawn for the  
15 Alternative 6 Scenario.

16 And it's clear by looking on the aerial maps.  
17 And it's clear from our site visits on the site where we  
18 got increase in topography all the little rills and  
19 gullies. It also coincides with some of the spring  
20 foraging habitat coming down from the foothills and the  
21 bajadas.

22 Staff considers the tortoise density up there  
23 that we're avoiding to be relevant, and we would support  
24 that line.

25 MR. RITCHIE: Okay, thank you. Then, Dr. Mock,

1 moving of from tortoise a little bit. I believe it was  
2 your testimony before that the changes in the project  
3 didn't really impact many of the species, besides, in your  
4 opinion, bighorn sheep, and Desert Tortoise, is that  
5 accurate?

6 DR. MOCK: No, I said that proportionally you  
7 have between 1,600 and 2,000 acres of habitat that's being  
8 avoided, at least from a direct impact point of view. You  
9 have a reduction in the acreage of indirect impact,  
10 because of the smaller footprints, and you have a decent  
11 list of other species that benefit from that reduced  
12 footprint.

13 MR. RITCHIE: So let's focus on one of those, the  
14 Whitemargin Beardtongue plant. Was that species benefited  
15 at all from the change?

16 DR. MOCK: No. The main focal species of the  
17 sensitive plant resource analysis are the same across all  
18 3 scenarios that we looked at, because the distribution of  
19 the rare plants is in the southern third of the property.

20 MR. RITCHIE: And I believe you stated in Barstow  
21 that it was quote "highly likely that there were  
22 Whitemargin Beardtongue seed banks and/or dormant plants  
23 that were not identified that are likely on this project  
24 site". Is that still your testimony, is that still  
25 accurate?

1 DR. MOCK: That's true for all desert plants.

2 MR. RITCHIE: And given the distribution of the  
3 Whitemargin Beardtongue, the scenarios haven't changed  
4 those impacts, those expected impacts?

5 DR. MOCK: No. We delineated the potential  
6 habitat for all the two main species we were concerned  
7 about, and that habitat is in the southern third of the  
8 property.

9 MR. RITCHIE: And now for the Golden Eagles also.  
10 I believe staff identified a potential risk, an unknown  
11 risk, of potential bird collisions with the solar arrays.  
12 And I believe staff noted that bird collisions have been  
13 noted with similar structures in other locations, is that  
14 correct?

15 MR. HUNTLEY: That's true.

16 MR. RITCHIE: And for Golden Eagles in  
17 particular, given their foraging range and the Golden  
18 Eagles that were observed near the site, that risk is  
19 still present on the Calico site, correct?

20 MR. HUNTLEY: It is, but by avoiding the 1,600 to  
21 1,900 acres of habitat, it will increase or decrease  
22 impacts to foraging habitat. It also pulls the footprint  
23 of the project farther away from the Cady Mountains. So  
24 we felt that had some beneficial effects or actually just  
25 reduced potential impacts to nesting birds in the Cadies.

1           MR. RITCHIE: So it potentially reduces the  
2 impacts to a small proportional degree to foraging. But  
3 to the extent that this is -- to use a legal terms -- if  
4 these SunCatchers are an attractive nuisance that may  
5 cause the birds to strike them, there's still plenty of  
6 them there for Golden Eagles to potentially strike,  
7 correct?

8           MR. HUNTLEY: It's true. However, we anticipate  
9 the Golden Eagles tend to avoid developed areas. And we  
10 are hoping that it will avoid these areas. But it is  
11 possible that they'll strike the SunCatchers.

12          DR. MOCK: The number of SunCatchers available  
13 for them to collide will be reduced as well.

14          MR. RITCHIE: Right, but the term "attractive  
15 nuisance" I wasn't just assuming that the birds dive bomb  
16 at random and therefore the random possibility is, you  
17 know, that there happens to be a SunCatcher there that  
18 changes.

19           I get that if they're randomly diving into the  
20 round, they may be better off. But if they're attracted  
21 to something, then that risk may still be there.

22           And finally, Dr. Mock, you discussed bighorn  
23 sheep a little bit. And I believe you dismissed the  
24 possibility of north-south movement of the bighorn sheep,  
25 is that correct?

1 DR. MOCK: That's based on other assessments.  
2 The original source of our information for bighorn sheep  
3 came from Gary Thomas. And he indicated the areas that he  
4 thought were of highest use -- the highest use areas for  
5 bighorn sheep and very little of the site relative -- I  
6 think something on the order of 400 acres are from the  
7 original 8,000 acre project, was encompassed within the  
8 project footprint. And then we had another 400 or so  
9 acres of indirect impact.

10 As you move farther and farther away from the  
11 Cady Mountains, that footprint that Gary provided us gets  
12 farther and farther away. Obviously, we found some  
13 additional evidence of sheep use, particularly in the very  
14 northern edge of the project -- of the 8,000 acre site,  
15 but Epps et al. did a study, and that's a peer-reviewed  
16 article.

17 And the mapping that they -- in that article  
18 indicated that from an inter-mountain movement  
19 perspective, those likely roots are east of the property.  
20 And so I had less concern in terms of the inter-mountain  
21 movement.

22 And so the focus has been -- always been on the  
23 relative utility of the habitat away from the mountains to  
24 provide early screen-up forage for pregnant ewes.

25 MR. RITCHIE: And I don't mean to go over all



1 of -- I believe we did cover a lot of this before in  
2 Barstow. Is it safe to say that you don't think that  
3 sheep move from north to south across the project site?

4 DR. MOCK: If they do, it doesn't -- there's no  
5 evidence that they do, because Epps considers I-40 as a  
6 barrier. And so they have no evidence that there is  
7 actual movement across I-40.

8 MR. RITCHIE: So no evidence, but it's a  
9 possible -- to caveat that, you don't think it happens,  
10 but it's a possibility.

11 DR. MOCK: Epps et al. claimed that I-40 was a  
12 barrier.

13 MR. RITCHIE: And in your opinion -- you don't  
14 think it happens, but in your opinion it's a possibility?

15 DR. MOCK: They could provide no positive data  
16 that it actually occurs. But they did identify the likely  
17 routes, if they do occur. And those likely routes occur  
18 east of the project.

19 MR. RITCHIE: Right. And just to clarify that,  
20 as an expert, your opinion, based on Epps or whoever else  
21 you've read, is that the sheep don't move in a north-south  
22 direction, but it's possible, is that fair to say?

23 DR. MOCK: It's possible on-site as well as  
24 off-site.

25 MR. RITCHIE: Now, if it's possible, do the

1 reduced project alternatives or the Scenario 5 and 6, do  
2 they do anything to change the probability, up or down,  
3 that sheep can use that area as a connectivity corridor?

4 DR. MOCK: In a north-south direction, no.

5 MR. RITCHIE: Thank you.

6 MR. OTAHAL: I would suggest that there is a  
7 slight increase in connectivity north to south, if you  
8 you're saying that, because if you notice along the  
9 eastern edge of the project, you're basically shaving off  
10 almost a half mile of the project. So you are reducing  
11 the width of the project by about a half mile.

12 MR. RITCHIE: So Mr. Otahal, do you believe that  
13 that's a habitat connectivity corridor?

14 MR. OTAHAL: I have not seen evidence that would  
15 support that that is.

16 MR. RITCHIE: Do you agree with Dr. Mock's  
17 conclusion that it's a possibility?

18 MR. OTAHAL: Yes. And given that, your question  
19 was does this project new footprint add any benefit. And  
20 I'm saying that if we assume there is a north-south,  
21 connectivity, if that is a given, this reduces the  
22 footprint width by over a half mile. So I would say that  
23 that would benefit that.

24 MR. RITCHIE: I appreciate that comment. But  
25 then equally, if we make that same assumption, Scenario 6

1 or Scenario 5.5, still basing that assumption that  
2 north-south exists, as you said, building Scenario 5 would  
3 still fragment that supposed connectivity, correct?

4 MR. OTAHAL: Your question was, does this --

5 MR. RITCHIE: No, no. I'm asking a new question.  
6 You answered that one and you did it well. But the new  
7 question is --

8 (Laughter.)

9 MR. OTAHAL: We have already stated, I think,  
10 over and over again, that there is potential impact to  
11 north-south movement, if that is indeed happening.

12 MR. RITCHIE: And that potential still exists  
13 with the new projects.

14 MR. OTAHAL: Right, but the question was, does  
15 this reduce those impacts and that is a yes.

16 MR. RITCHIE: And staff agrees with that  
17 assessment as well.

18 MR. HUNTLEY: Staff identified in the SSA that  
19 the proposed project likely hinders north-south movement  
20 in that area, but it doesn't preclude animals moving  
21 around the project, yes.

22 MR. WHITE: I'd just add we had quite a bit of  
23 testimony on this point in one of the earlier hearings --

24 MR. RITCHIE: I'll move on from fragmentation.

25 MR. WHITE: -- that Dr. Bleich -- and we took his

1 testimony under consideration in these revisions.

2 MR. RITCHIE: Thank you.

3 And so moving on, and I guess staff I'll continue  
4 to direct the questions to you for a little bit.

5 The new Scenarios 5.5 and 6 still rely on the  
6 translocation plan, correct?

7 MR. HUNTLEY: A translocation plan is one  
8 component that would be implemented to reduce impacts to  
9 the species. However, the numbers of tortoises that would  
10 require translocation would be substantially reduced  
11 somewhere on the order of 88 to 95 percent.

12 HEARING OFFICER KRAMER: And what are the other  
13 components?

14 MR. HUNTLEY: Habitat mitigation, acquisition, so  
15 land acquisition. There'd be preconstruction surveys.  
16 There'd be monitoring. Translocation is a salvage attempt  
17 to make sure that the animals are not left on the site and  
18 subject to construction-related mortality.

19 That also includes raven control, and weed  
20 management, things of that nature as well.

21 MR. RITCHIE: And I apologize. I'm again  
22 fumbling with papers a little bit. But do you recall Mr.  
23 Huntley, an Email from Tonya Moore to you that I believe  
24 was brought up?

25 MR. HUNTLEY: Yes, I believe we docketed that.

1 MR. RITCHIE: We did. I think it was 314.  
2 Someone can correct me. I had it written on mine.

3 STAFF COUNSEL ADAMS: That's correct.

4 MR. RITCHIE: 314?

5 STAFF COUNSEL ADAMS: Yeah.

6 MR. RITCHIE: And in that Email, Ms. Moore laid  
7 out several issues that the Department of Fish and Game  
8 had concerning the readiness of the translocation plan and  
9 its ability to be implemented, is that correct?

10 MR. HUNTLEY: Yes, it is.

11 MR. RITCHIE: And based on Scenario 5.5 and  
12 Scenario 6, have there been any changes made to the  
13 translocation plan?

14 MR. HUNTLEY: As I understand it, the  
15 translocation plan is continually being revised and Fish  
16 and Wildlife, BLM, and Fish and Game have been  
17 coordinating fairly extensively on that plan.

18 Also, the key thing with Scenario 5.5 and  
19 Scenario 6 is with the potential translocation of 13  
20 tortoises for Scenario 5.5 and 5 tortoises for Scenario 6,  
21 it substantially reduces the number of tortoises that  
22 would require translocation, both the long distance  
23 translocation sites and to less than 500-meter  
24 translocations sites.

25 MR. OTAHAL: Okay. I can also --

1           MR. RITCHIE:  Would it reduce the less than 500  
2 meter translocation sites, because I believe there were  
3 only two that were eligible for that before, which  
4 presumably -- I mean, unless we had 1, I guess it could.  
5 But as far as -- my last recollection of the translocation  
6 plan was that of the short distance translocation receptor  
7 sites, there were only 2 tortoise that would be able to be  
8 moved to the Pisgah ACEC.

9           MR. HUNTLEY:  As we understand it today, and as  
10 identified in our addendum, BLM, Fish and Game and Fish  
11 and Wildlife Service are considering short distance  
12 translocation as a viable option to the area north of the  
13 new project 6 or project -- or Scenario 6 or Scenario 5.5  
14 boundary, because of the reduction in project size and the  
15 availability of that 1,600 to 1,900 acres of habitat.  
16 They felt it was -- any tortoises found within 500 meters  
17 of that northern boundary could be moved, translocated  
18 into that area.  And that was in order to preserve  
19 potentially parts of their home ranges and reduce  
20 translocation mortality.

21           MR. RITCHIE:  So essentially reinstating the  
22 northern linkage area as a receptor site?

23           MR. HUNTLEY:  That's right.

24           MR. RITCHIE:  But that was previously rejected by  
25 staff and the agencies, because of the density of that

1 site, correct?

2 MR. RITCHIE: That's right. It was not just the  
3 density. It was the width of that. And since, in many  
4 cases, that width has increased by up to a mile or over a  
5 mile, the resource agencies felt that it could accommodate  
6 additional tortoises and felt that the overall impacts to  
7 those tortoises would be minimized if you could preserve  
8 part of those tortoise's home range.

9 MR. RITCHIE: But there are still density limits  
10 on whether or not a receptor site, whether it's a close  
11 receptor site or a long distance receptor site can receive  
12 tortoise, is that correct?

13 MR. HUNTLEY: Yes, as I understand it.

14 MR. RITCHIE: And those -- whether or not the new  
15 northern linkage area is an appropriate place for that has  
16 yet to be determined, correct?

17 MR. HUNTLEY: I believe it's a potential  
18 translocation site at this point in time.

19 MR. OTAHAL: Yeah, the current thinking is that  
20 given the larger linkage area to the north, actually we're  
21 starting to not even refer to it as a linkage anymore,  
22 because of the size of it.

23 And the discussions with Fish and Game and Fish  
24 and Wildlife currently are that it may be better to move  
25 those short distance, i.e., less than 500-meter animals

1 into that, and maybe, you know, quote unquote violate that  
2 density thought.

3           Weighing that against moving those animals long  
4 distance and having to go through the disease testing and  
5 all the other stress, so that's something that is in flux,  
6 so the agencies, i.e. Fish and Wildlife and Fish and game  
7 are reconsidering what is appropriate to do with that. So  
8 that's part of discussions that are ongoing right now.

9           MR. RITCHIE: So we'll figure that one out in a  
10 little while.

11           MR. HUNTLEY: Staff has included in its testimony  
12 and considers it a viable option.

13           MR. RITCHIE: But presumably if the other  
14 resource agencies reject it, then staff presumably  
15 wouldn't want to continue to propose it, is that correct?

16           MR. HUNTLEY: We probably would not. But based  
17 on the consideration of Dr. Berry, Fish and Wildlife  
18 Service, and other experts, because the animals have high  
19 site fidelity, they felt it was more important to maintain  
20 those tortoises within a portion of their core home range,  
21 rather than to translocate them to sites and risk having  
22 some animals try to do long distance dispersal.

23           MR. RITCHIE: And so staff decided to  
24 disregard -- perhaps disregard is not the best word, but  
25 outweigh the high density issues that had been previously



1 identified in favor of these other issues.

2 MR. HUNTLEY: On the contrary it's not  
3 outweighing it. This is being handled in coordination  
4 with the Resource agencies who manage this species and  
5 they felt that it was a reasonable alternative to  
6 translocate tortoises to this location in order to  
7 preserve their home ranges.

8 MR. RITCHIE: But in making that determination,  
9 you would have stopped using the previous density  
10 determinations of that -- I believe it was 130 percent --

11 MR. HUNTLEY: And I believe that density in this  
12 location was also associated with the size of the area  
13 that the animals were being translocated to. So while it  
14 was high density, it was also very narrow, if parts of the  
15 Ord-Rodman had very high tortoise density and they would  
16 still accommodate a fair number of tortoises. So with the  
17 increase in width of the northern linkage area, right now  
18 the resource agencies feel it's an appropriate location to  
19 translocate animals.

20 MR. RITCHIE: But isn't there also a density  
21 limit on the receptor side that's based on the density 130  
22 percent of the closest recovery area?

23 MR. HUNTLEY: Yes.

24 MR. RITCHIE: And so that factor would have to be  
25 disregarded in order for this northern area to be a

1 suitable receptor site?

2 MR. HUNTLEY: I don't know if it has to be  
3 disregarded, but it will certainly be weighed.

4 MR. RITCHIE: It wouldn't be an excluding factor?  
5 In other words, this wouldn't meet that test, and whatever  
6 other determinations we decide moving forward, it wouldn't  
7 meet that test of -- it would have a higher density than  
8 the 130 percent of the closest recovery area?

9 MR. HUNTLEY: It is possible.

10 MR. RITCHIE: But we don't know yet?

11 MR. HUNTLEY: No.

12 MR. RITCHIE: Okay. Thank you.

13 And then, Mr. Huntley, just one last question.  
14 On these other issues identified by Ms. Moore with the  
15 translocation plan, I believe you testified last time that  
16 it was your hope that this would all be done before we  
17 have to move the first tortoise, is that an accurate  
18 statement of what you had said before?

19 MR. HUNTLEY: The translocation plan has to be  
20 done before we'll allow the movement of any tortoises.

21 MR. RITCHIE: And so putting this into real world  
22 concepts, the translocation plan has to be done before any  
23 tortoise on the site of Phase 1A construction go into  
24 their burrows for hibernation, correct?

25 MR. HUNTLEY: The translocation plan has to be

1 completed prior to the movement of any tortoises. If the  
2 tortoises go into their burrows prior to the completion of  
3 this document, they're not going to be translocating  
4 tortoises until the spring.

5 MR. RITCHIE: Okay. Now, previously Dr. Berry  
6 joined us and stated that she believed that the Desert  
7 Tortoise population at the Calico site was a valuable site  
8 given the overall decline of the species. Do you recall  
9 that?

10 MR. HUNTLEY: Yes, I do.

11 MR. RITCHIE: Do you agree with Dr. Berry's  
12 assessment?

13 MR. HUNTLEY: We do think the Calico site is an  
14 important site.

15 MR. RITCHIE: And is it also fair to say that  
16 that population will still be impacted by the project's  
17 construction even if it is the reduced Scenario 6  
18 construction?

19 MR. HUNTLEY: Clearly.

20 MR. RITCHIE: And that therefore puts a risk on  
21 the population that is currently in decline to potentially  
22 further decline?

23 MR. HUNTLEY: Impacts to tortoises would occur  
24 for an implementation of either Scenario 5.5 or Scenario  
25 6. However, the conditions of certification provided in

1 the Staff Assessment would mitigate those animals -- the  
2 impacts to those animals to less than significant levels.

3 MR. RITCHIE: Thank you. And I believe that was  
4 well stated in your addendum.

5 And I would like to turn a little bit to -- staff  
6 did change one conclusion on the cumulative impacts with  
7 respect to the Mojave Fringe-toed Lizard. And I believe  
8 that you stated that that was as a result of the 220-some  
9 foot setback from the railroad, correct?

10 MR. HUNTLEY: That's correct.

11 It's from the railroad and Interstate 40, if I'm  
12 correct.

13 Yeah, it's from the edge of the BNSF right of  
14 way. So the actual distance between the BNSF Railroad and  
15 the SunCatchers would be some distance plus the 223.

16 MR. RITCHIE: So now I'm going to look at Figure  
17 No. 4. I believe it was from the SA DEIS. But this is  
18 the map of the -- I believe it's staff's map of the Mojave  
19 Fringe-toed Lizard observations and habitat.

20 Are you familiar with that map?

21 MR. HUNTLEY: Yes, I am.

22 MR. RITCHIE: I thought you might be by now.

23 HEARING OFFICER KRAMER: Where is it coming from  
24 though, for the record?

25 MR. RITCHIE: This is Biological Resources Figure

1 4. I believe this was in the SA DEIS.

2 MR. WHITE: Probably in the SSA.

3 MR. HUNTLEY: That appears to be the map, yes, it  
4 does.

5 HEARING OFFICER KRAMER: The map that's where?

6 MR. HUNTLEY: The map that staff created for the  
7 SSA -- for the SA DEIS, I -- no, it's the SSA.

8 MR. RITCHIE: I don't --

9 MR. HUNTLEY: Yeah, it's the SSA.

10 MR. RITCHIE: So it's Figure 4 of the SSA?

11 MR. HUNTLEY: Yeah.

12 MR. RITCHIE: Okay. Thank you.

13 And so that map shows the yellow bands of  
14 observed Mojave Fringe-toed Lizards as well as their  
15 predicted habitat in this area?

16 MR. HUNTLEY: Yes, it does.

17 MR. RITCHIE: I hear a qualification coming.

18 And so in looking at this, it does not appear  
19 just based on these lines that if you follow the  
20 railyard -- or the railroad and you create a corridor, the  
21 existing habitat does not appear to follow that corridor  
22 out of the project; is that correct?

23 MR. HUNTLEY: That's not entirely correct. And  
24 there's a couple important distinctions that need to be  
25 made. Implementation of Scenario 5.5 or Scenario 6 would

1 still result in significant adverse impacts to populations  
2 of Mojave Fringe-toed Lizard that live on the project  
3 site. And we believe that fundamentally they will take a  
4 major hit from implementation of the project.

5           However, there will still be preserved a corridor  
6 which has components of sand fields, sand hummocks and  
7 other areas on either side of a railroad that would allow  
8 for movement to east-west. Not necessarily long term  
9 within habitat, but certainly, you know, occupation and  
10 movement. And what we're looking at is, you know,  
11 maintaining that gene flow. And so we felt that that  
12 corridor would be wide enough to still allow the passage  
13 of animals.

14           MR. RITCHIE: That's a fairly substantial  
15 gauntlet to run though, isn't it, if you're talking --  
16 because, for one -- let's break this down a little bit.  
17 Given that most of the habitat on-site will be degraded,  
18 as you said, to a complete loss or something like that.  
19 So is it fair to say that the remaining area wouldn't  
20 support a long-term -- in your opinion, a long-term  
21 persistence of Mojave Fringe-toed Lizard as primary  
22 habitat?

23           MR. HUNTLEY: Within the solar rays we don't  
24 think the animals are going to persist because of the  
25 maintenance and the other things. We know right now, and

1 I think were identified in the SSA, that Fringe-toed  
2 Lizards do occur along the railroad right of way. And I  
3 identified some on the berm -- or the tamarisk berm in the  
4 sand that accumulated there.

5 So we do have reason to believe that animals will  
6 be able to at least, you know, jump dispersal through  
7 those areas. And then, again, we're talking about not  
8 necessarily full-time occupied habitat but merely a  
9 corridor that is free enough of disturbance that allow  
10 animals to disperse to other areas over time.

11 MR. RITCHIE: But a migratory corridor as opposed  
12 to a slow generational genetic drift?

13 MR. HUNTLEY: There could be live-in animals in  
14 that area. But we're not expecting it to support a robust  
15 population.

16 MR. RITCHIE: And it's staff's opinion then that  
17 that narrow 224-foot section would --

18 MR. HUNTLEY: It's 224 feet on either side of the  
19 railroad. And because of that width in addition to what  
20 the BNSF right of way is - and I know that varies from  
21 location to location - we felt it would be wide enough to  
22 preserve a movement corridor for that species.

23 MR. RITCHIE: And did you base that off of any  
24 study showing migratory ranges or distances of Mojave  
25 Fringe-toed Lizard?

1           MR. HUNTLEY: The Cablik study and the other  
2 studies I cited in the Staff Assessment identified - and  
3 that was part of the reason we identified some habitat  
4 on-site - is identified that these animals are capable of  
5 utilizing a wide variety of habitats for dispersal. And  
6 they're not restricted to pure sand fields at all.

7           MR. RITCHIE: So as kind of a conclusion though,  
8 I'll add this, in that construction of the project,  
9 however, would still create an obstruction to east-west  
10 movement for the Mojave Fringe-toed Lizard in that area,  
11 correct?

12          MR. HUNTLEY: We believe that there would --  
13 pardon me. We believe that an east-west corridor would be  
14 preserved, but it would be impacted. It would be a  
15 hindrance to movement certainly, yes.

16          MR. RITCHIE: It would be impacted. There would  
17 be more of an obstruction than if the project were not  
18 built?

19          MR. HUNTLEY: It would be a filter. It wouldn't  
20 be a complete barrier, but it would be a filter.

21          MR. RITCHIE: Thank you.

22          HEARING OFFICER KRAMER: Any other intervenor?  
23 Seeing none --

24          MR. BASOFIN: Wait.

25          MR. RITCHIE: I have just one final quick



1 question for applicant for -- it won't take much longer.

2 And actually I believe Ms. Bellows may have spoke  
3 to this earlier - and staff can chime in, or anyone.

4 There were several Conditions of Certification  
5 that required essentially a 30-day verification, correct?

6 MS. BELLOWS: Correct.

7 MR. RITCHIE: And there are several of those that  
8 are still outstanding with respect to biological  
9 resources, correct?

10 MS. BELLOWS: There are a number of reports that  
11 need to be turned in and comments gotten and that sort of  
12 thing. And as I mentioned before, we're in -- we've  
13 submitted I think all of those reports and are in the  
14 process of getting comments. So that's correct.

15 MR. RITCHIE: And so before any construction  
16 activities occur, those comments need to be -- or those  
17 verifications need to be submitted, 30 days needs to pass,  
18 and then construction can start, is that -- Ms. Bellows  
19 again is shaking her head -- is that not correct?

20 MS. BELLOWS: Reports have to be finalized.

21 MS. FOLEY GANNON: Many of the reports they allow  
22 for they're to be give and take during that 30-day time  
23 period. So the fact that they've already been submitted,  
24 the 30-day time clock is started for many of them assuming  
25 that the project gets approved and the plans are

1 finalized.

2 MR. RITCHIE: So every Condition of Certification  
3 that requires a 30-day verification, that 30-day clock has  
4 started?

5 MS. BELLOWS: Well, I don't know about all of  
6 them. I have to go back and check. We're in the process  
7 of working through all of that right now.

8 MR. RITCHIE: So to the extent that there are any  
9 left, we would need to get that verification in, wait 30  
10 days before construction starts?

11 MS. BELLOWS: That's correct.

12 MR. RITCHIE: That's correct.

13 And construction includes placing Desert Tortoise  
14 fencing, removing Desert Tortoise, the surveys, and  
15 removing them from their habitat for translocation,  
16 correct?

17 MS. BELLOWS: Well, definitely on the  
18 translocation, no question on that.

19 MR. RITCHIE: Okay. And so with that context,  
20 turning back to staff, again we're facing this 30-day  
21 deadline for any of these verification processes. Those  
22 would have to be in before 30 days before the tortoises go  
23 into their burrows in order to begin construction for  
24 Phase 1A, correct?

25 MR. HUNTLEY: I understand that there's

1 flexibility in the verification, and provided that the  
2 plan's approved in the appropriate timeframe. And if the  
3 project is approved, if the plan is approved, I don't see  
4 a hindrance to moving the tortoises provided the  
5 biological opinion and the ROD are complete. But  
6 regarding specific compliance actions, probably need to  
7 bend Cristopher's ear on that.

8 MR. RITCHIE: So to the extent that a Condition  
9 of Certification states that there's a 30-day time period,  
10 that's flexible?

11 MR. HUNTLEY: The verifications -- if the  
12 verification says 30 days, that is a flexible timeframe.  
13 If it's within the body of the condition, then that's not  
14 as flexible.

15 MR. RITCHIE: So the verification within the  
16 Condition of Certification is flexible?

17 MR. HUNTLEY: Yes, it is.

18 HEARING OFFICER KRAMER: Well, okay. I'm going  
19 to --

20 MR. RITCHIE: And I have no further questions on  
21 that.

22 HEARING OFFICER KRAMER: Okay. On that point, is  
23 it the case that these intervals are designed to give  
24 staff a point or place to be a reasonable amount of time  
25 to review a filing and that then applicant should not

1 necessarily expect an answer any earlier than that time  
2 period but it could come earlier?

3 PROJECT MANAGER MEYER: That is correct. It's  
4 the -- the compliance project manager who the plans go to  
5 is not going to do the analysis. They're going to  
6 actually -- as Casey testified earlier, it'll go back  
7 generally to the technical staff who wrote that condition,  
8 and who knows the intent and is familiar with it, to make  
9 sure that the condition is being complied with.

10 If staff says we need 45 days because we think it  
11 might be complex, but it turns out that the plan that's  
12 presented to staff is what staff is hoping for or what had  
13 been agreed to at the agencies that are reviewing it, and  
14 everyone who's required to review comment on, and then  
15 those -- for staff to approve it, if that happens in 30  
16 days, staff would not be telling the applicant that,  
17 "Sorry. We're all done, but you have 15 more days to  
18 wait."

19 HEARING OFFICER KRAMER: And it's not meant to be  
20 establishing some kind of comment period for people such  
21 as the Sierra Club to wait and weigh in with the  
22 compliance project manager?

23 PROJECT MANAGER MEYER: No. It's -- as you  
24 stated earlier, it's to allow staff appropriate time or  
25 allow other parties such as, you know, BNSF or the county

1 who may be part of the review cycle enough time to review  
2 the document and get comments back to the CPM.

3 MR. RITCHIE: So I guess -- that actually raised  
4 a concern with me that I guess I misunderstood the first  
5 time.

6 So the document that the public has reviewed --  
7 and I'm not saying we're going to review the verifications  
8 or that that's one of the conditions of certification --  
9 but what we have reviewed and what we have been given a  
10 public comment period on very explicitly states that these  
11 things have to be done 30 days prior to construction. But  
12 we're now hearing that that's fuzzy, that's not actually  
13 the case, and that the document that was submitted to the  
14 public for comment is inaccurate in that context.

15 HEARING OFFICER KRAMER: Well, can you think of  
16 an example of a document that you're allowed -- or that  
17 where public comment is expressly expressed -- or  
18 expressly mentioned?

19 MR. RITCHIE: Well, I mean these are -- I'm  
20 actually thinking of CEQA's comment process, and that  
21 these Conditions of Certification were crafted and  
22 submitted to the public for public review and comment,  
23 which we've been doing. And we've commented on them and  
24 reviewed them. But I just now think I heard that one of  
25 those issues -- one of those conditions of certification

1 with respect to verification is not actually going to be  
2 interpreted as it's written in whatever version of the  
3 Staff Assessment that we're on. And so I guess that's  
4 just the level of concern, that if -- not so much that we  
5 want to comment on the verification itself, but that this  
6 process allows for public comment and now that's -- I  
7 thought I just heard it's changing.

8 HEARING OFFICER KRAMER: No, I think -- it sounds  
9 as if you misunderstand how things work. There is a  
10 process that leads to a Commission decision. And then --  
11 the compliance process is not a rolling CEQA process.  
12 You're not going to see notices of determination every  
13 time they approve a plan or anything like that.

14 The thought there is that the -- that, you know,  
15 the CEQA analysis has been done. So staff is going to act  
16 on the filings for these projects, I suspect, as soon as  
17 they can. There is no public comment period as such. You  
18 of course are allowed to obtain copies of the public  
19 documents and you may be even able to appeal certain  
20 decisions that are made. But staff is not, generally  
21 speaking, going to be waiting for people to weigh in and  
22 provide comments on those filings.

23 MR. RITCHIE: I understand that, and that's not  
24 my confusion. My confusion is that these 30-day  
25 verification periods were part of the proposed Conditions

1 of Certification, which are themselves part of the  
2 mitigation measures proposed for some very significant  
3 impacts from this project.

4           And I may be going down the wrong path here. But  
5 it sounds like they're not actually what they say they  
6 are. And I think BNSF brought this up to some degree  
7 earlier, is that -- we've been engaging in this process  
8 and this is one of these examples of we still don't know  
9 what this final document is going to look like. And even  
10 if we know what it's going to look like, it may not be  
11 followed. And --

12           PRESIDING MEMBER EGGERT: Actually maybe I can --  
13 are what you're saying -- the 30-day portion of the  
14 verification is not part of the mitigation. It's  
15 basically a -- or at least as I understand based on the  
16 comments that have been provided, it's a time period  
17 allowed for the staff to have proper time to consider  
18 whatever it is that is submitted.

19           PROJECT MANAGER MEYER: Let me probably clarify,  
20 if I could. We're not talking about just an arbitrary  
21 decision. There's an administrative process for any  
22 changes in timeframes or anything else within the  
23 verification that would be done by the compliance project  
24 manager in that process -- in that post-certification  
25 process.

1           So it's like if there was a 90-day comment -- or  
2 a 90-day - excuse me - or something in the verification,  
3 not in the condition. Anything in the condition posed it  
4 has to go through an amendment process in front of the  
5 Commission. And within the verification there can be  
6 administrative changes to that as necessary as long as it  
7 is in compliance with the condition.

8           MR. RITCHIE: Thank you. And it's late, and  
9 thanks for the indulgence on the procedural issues. I'll  
10 leave it at that. So I appreciate that.

11           HEARING OFFICER KRAMER: Okay. Any other  
12 intervenors?

13           MR. BASOFIN: Joshua Basofin, Defenders of  
14 Wildlife. Good evening, everybody.

15           Good morning.

16           (Laughter.)

17           MR. BASOFIN: Good morning, everybody.

18           I have a few questions for a couple of the  
19 witnesses.

20                                   CROSS-EXAMINATION

21           MR. BASOFIN: Dr. Mock, you described the  
22 conceptual north-south movement of Bighorn Sheep through  
23 the site as a non-starter. Is that right? Was that your  
24 testimony?

25           DR. MOCK: Correct.



1 MR. BASOFIN: Okay. And I take it from your  
2 testimony that you base that in part on some modeling that  
3 you did that found Bighorn Sheep movement to the east and  
4 west of the site?

5 DR. MOCK: Epps found them -- did the modeling.

6 MR. BASOFIN: Okay. Has that modeling been  
7 submitted into evidence?

8 DR. MOCK: You have it as one of your pieces of  
9 evidence. Or at least I think CURE did, at least.

10 MR. BASOFIN: I don't think we did.

11 DR. MOCK: Epps, et al., 2007.

12 MR. BASOFIN: The study itself. But you didn't  
13 actually model the site yourself?

14 DR. MOCK: Epps did the modeling for the project  
15 vicinity.

16 MR. BASOFIN: Right, for the project vicinity.  
17 But it wasn't a site-specific project model?

18 DR. MOCK: He identified the specific routes most  
19 likely to be used by the sheep to cross I-40.

20 MR. BASOFIN: But it was generally in the Pisgah  
21 region but not specifically for the Calico project site,  
22 right?

23 DR. MOCK: Correct.

24 MR. BASOFIN: Thank you.

25 You also -- let me ask you this. You testified

1 that ewes and calves would potentially use that northern  
2 portion of the site for foraging, is that right?

3 DR. MOCK: Gary Thomas identified a small portion  
4 of the site -- of the 8200-acre site as being a use area.

5 MR. BASOFIN: Okay. And through your surveys did  
6 you ever observe evidence of ewes and calves using that  
7 foraging site?

8 DR. MOCK: No, we only found evidence of Bighorn  
9 Sheep in terms of sign, you know, skeletons and a skull.

10 MR. BASOFIN: Okay. And what was the sex of  
11 those skeletal remains you found?

12 DR. MOCK: Do you remember what they were -- what  
13 sex they were?

14 MS. MILLER: I don't remember. I know there's  
15 one horn that was found.

16 DR. MOCK: Was it a big enough horn to be a male?  
17 I don't think they reported the sex.

18 MR. BASOFIN: Were there remains of male rams  
19 found in the northern portion of the site?

20 DR. MOCK: We don't have that information  
21 currently.

22 MR. BASOFIN: Okay. I would refer you to our  
23 Exhibit 619, if you have that available. It's a  
24 photograph of the remains of a Bighorn Sheep that was  
25 found at the coordinates that your survey had identified.

1 MS. FOLEY GANNON: 619?

2 MR. BASOFIN: Yes.

3 DR. MOCK: It looks like a male to me.

4 MR. BASOFIN: Okay. Thank you.

5 And so because, as you've testified, generally  
6 ewes and calves would be using that portion of the site  
7 for foraging, would --

8 DR. MOCK: Well, that's the populational  
9 explanation for why the early spring green-up is so  
10 important to the population.

11 MR. BASOFIN: Right. So because --

12 DR. MOCK: Certainly males could take advantage  
13 of the forage as well.

14 MR. BASOFIN: Okay. And are there other reasons  
15 that male rams -- that rams would be on the site?

16 DR. MOCK: It's after the rut. So I doubt it's  
17 all that -- I mean they'd like to be separated from the  
18 ewes outside the rut -- rutting season. So they're just  
19 making use of the forage just as much as the ewes  
20 probably.

21 Certainly, you know, the movement -- the  
22 populational movement in this area is going to focus on  
23 the actual mountain range, and there's no concern that the  
24 mountain range is being affected since it's all in  
25 wilderness -- designated wilderness study area. So it's

1 de facto conserved already through the BLM designation of  
2 wilderness study area.

3 MR. BASOFIN: And you mentioned that I-40 creates  
4 a barricade to movement to the south and to the Ord-Rodman  
5 and other mountains to the south of the site?

6 DR. MOCK: That's the opinion of Epps, yes.

7 MR. BASOFIN: Are you familiar with the study  
8 that was conducted for the Palen project that's submitted  
9 as Defenders Exhibit 616?

10 DR. MOCK: No, I haven't.

11 MR. BASOFIN: Okay. I'm wondering if -- in that  
12 study that was conducted for the Palen project there were  
13 specific studies looking at each culvert under I-10. That  
14 project is specifically situated near I-10, similarly to  
15 how the Calico project is situated near I-40. And that  
16 study specifically looked at each culvert under the  
17 highway. And I'm wondering if during your surveys if you  
18 looked at each culvert under I-40 to determine if those  
19 culverts could facilitate movement of the Big Horn Sheep?

20 DR. MOCK: No, we did not.

21 MR. BASOFIN: Okay.

22 HEARING OFFICER KRAMER: What is the special  
23 relationship of this line of inquiry to the changes in the  
24 project footprint?

25 MR. BASOFIN: Defenders is contending that there

1 are still remaining impacts to potential movement  
2 corridors of both Desert Tortoises and Bighorn Sheep from  
3 5.5 and 6, the new scenarios.

4 DR. MOCK: We don't dispute that.

5 MR. BASOFIN: So this line of questioning is  
6 getting at what the applicant has done to determine what  
7 those impacts might be and mitigate them.

8 HEARING OFFICER KRAMER: Well, it sounds as if  
9 you're relitigating issues that would just as  
10 appropriately have been raised in connection with the  
11 larger project. And --

12 MR. BASOFIN: Well, we --

13 HEARING OFFICER KRAMER: -- which is beyond the  
14 scope of what we were intending to receive today --  
15 yesterday.

16 MR. BASOFIN: And they were raised in connection  
17 with the larger project. And there's I think new  
18 information that is appropriately raised now. For  
19 instance, the Palen study that I just mentioned that we  
20 intend to submit into evidence as an exhibit.

21 And so I don't know that there's a statute of  
22 limitations on, you know, looking at what the potential  
23 impacts of the project are, whether it's the full project  
24 or a revised project.

25 HEARING OFFICER KRAMER: Okay. This Palen study

1 is dated may -- mid-May of this year. Our hearings -- our  
2 main hearings were in -- when was it, August? -- early  
3 August.

4 MR. BASOFIN: It was the beginning of August.

5 HEARING OFFICER KRAMER: So how was this not in  
6 your hands and available for those?

7 MR. BASOFIN: It was not in my hands. We didn't  
8 have -- it didn't come into my possession until after  
9 that.

10 HEARING OFFICER KRAMER: But it apparently could  
11 have. Or did you have difficulty obtaining --

12 MR. BASOFIN: It was in the public sphere before  
13 the hearings. I won't disagree with that.

14 HEARING OFFICER KRAMER: Well, okay. The  
15 applicant just said they've not changed their conclusions  
16 about --

17 MR. BASOFIN: I just have a couple more questions  
18 on this point and then I'll move on.

19 HEARING OFFICER KRAMER: And then how many more  
20 do you have after that?

21 MR. BASOFIN: I have a few questions for a couple  
22 of different witnesses.

23 HEARING OFFICER KRAMER: Why don't you just move  
24 on, because I -- we've heard that their conclusions have  
25 not changed. So I don't think there's any reason to

1 explore that further at this point.

2 MR. BASOFIN: Okay. I have a few questions for  
3 Ms. Miller.

4 In your assessment of impacts to Desert Tortoise  
5 from the new project scenarios, did you consider habitat  
6 fragmentation?

7 MS. MILLER: Yes, we did, the same as when we'd  
8 assess it for the original site.

9 MR. BASOFIN: And what were your conclusions  
10 about whether habitat was fragmented due to the new  
11 scenarios?

12 MS. MILLER: I would say there's probably a  
13 little less fragmentation based on the additional area in  
14 the northern linkage that provides a -- not only a  
15 linkage, but more of a live-in habitat for the tortoise.  
16 And we're reducing the overall project size, so I think  
17 the fragmentation issue is decreased.

18 MR. BASOFIN: Did you consider the possibility  
19 that habitat south of I-40 and habitat north of I-40 would  
20 be fragmented?

21 MS. MILLER: It already is and already was as  
22 part of this original project.

23 MR. BASOFIN: Did you consider whether there was  
24 north-south movement of tortoises and whether those  
25 tortoises that were moving below the railroad and highway

1 would be barricaded from each other, whether there would  
2 be fragmentation that way?

3 MS. MILLER: I think as -- you know, we did that  
4 for the original project site, and that was -- it was  
5 assessed as there would be some level of barrier to  
6 movement in a north-south direction. So the scenarios 5.5  
7 and 6 don't change that level of barrier. If you're  
8 looking at just the I-40 and the culverts, it's the same.

9 MR. BASOFIN: Okay. I have a couple of questions  
10 for you specific to two figures. One of them is Figure  
11 No. 12 from Scenario 6 from your most recent testimony.  
12 And the other one is Figure No. 10 from the Supplemental  
13 Biological Assessment.

14 I have copies of those if you don't have them.

15 MR. HUNTLEY: I'd like a copy if you have one.

16 HEARING OFFICER KRAMER: I think we all would.

17 MR. BASOFIN: I have one copy.

18 HEARING OFFICER KRAMER: And are these  
19 documents -- I think you're referring to Exhibit 114  
20 for -- Well, was that the applicant's most recent  
21 testimony, is that correct, their testimony that they  
22 filed --

23 MR. BASOFIN: Yes, that's Exhibit 114, and it's  
24 Figure 12.

25 The other one is Figure 10 from the Supplemental



1 Biological Assessment, which the Committee has taken  
2 official notice of.

3 MS. MILLER: Is it the railroad crossing?

4 Sorry.

5 MR. BASOFIN: It's the culvert?

6 MS. MILLER: Okay. It's also in the -- I think  
7 that map hasn't changed from the BA -- the original BA  
8 that was submitted. I don't if anyone has that one  
9 tonight, but it's the same map.

10 MR. BASOFIN: I think that's right. I think it  
11 is the same map from the BA to the -- change to the  
12 supplemental.

13 HEARING OFFICER KRAMER: Whereabouts in that  
14 testimony was -- no, wait a minute. Now  
15 there's -- there's more than Exhibit 114 in there.

16 MS. FOLEY GANNON: There's a couple exhibits.

17 MR. BASOFIN: I'm sorry. This might -- this  
18 might be from the original submittal.

19 DR. MOCK: It's the BA or the biotech report.

20 MR. BASOFIN: Figure 10 is from the BA. Figure  
21 12 is from the original scenario submittal from the  
22 applicant.

23 MS. MILLER: Okay, right. Gotcha.

24 MR. BASOFIN: The Scenario 6 map.

25 MS. MILLER: Like for your 12 from the Scenario

1 6.

2 MR. BASOFIN: It's titled "Fencing Timing for  
3 Phase 1A."

4 Are you with me?

5 MS. MILLER: I'm with you.

6 MR. BASOFIN: Okay. Did you prepare this figure,  
7 Figure No. 12 from Scenario 6?

8 MS. MILLER: URS GIS did.

9 MR. BASOFIN: Okay. And did URS also prepare  
10 Figure No. 10 appended to the BA?

11 MS. MILLER: Yes.

12 MR. BASOFIN: Okay. Are you aware that the BA  
13 identified six separate railroad trestles that Scenario 6,  
14 Figure 12 did not?

15 MS. MILLER: I don't think the trestles were the  
16 focus of this figure, so I --

17 MR. BASOFIN: There are trestles --

18 MS. MILLER: Oh, there's the existing trestles.  
19 Yes, I see that.

20 MR. BASOFIN: -- identified to the west of the  
21 project. But --

22 DR. MOCK: It's not a comprehensive --

23 MS. MILLER: Yeah, the trestles --

24 DR. MOCK: -- delineation on this figure.

25 MS. MILLER: On the Figure 12 it was identified

1 as a part of the fencing and the need to fence around the  
2 trestles more than identifying the trestles out of the  
3 potential crossing.

4 DR. MOCK: The focus was the fencing and what  
5 trestles would be needing to be fenced or at least dealt  
6 with in terms of flood flows.

7 MR. BASOFIN: Okay. So focusing on Figure No.  
8 10, do you see where there's six railroad trestles --

9 MS. MILLER: Yes.

10 MR. BASOFIN: -- in the sort of like the middle  
11 portion of the project site?

12 MS. MILLER: Yes.

13 MR. BASOFIN: And to your knowledge would those  
14 trestles facilitate movement of a tortoise from the  
15 northern part of the project through the railroad to the  
16 southern part of the project?

17 MS. MILLER: Yes, they would.

18 MR. BASOFIN: And to your knowledge are there  
19 tortoise burrows in the vicinity of those trestles, both  
20 in the northern and both to the north of the railroad and  
21 to the south of the railroad?

22 MS. MILLER: There are burrows -- yes, there are  
23 burrows located in those areas. They're the 4's and 5's  
24 though. They're the older burrows.

25 MR. BASOFIN: Are there any 1's, 2's, or 3's?

1 MS. MILLER: There's one -- there's one or two of  
2 them.

3 MR. BASOFIN: Okay. So is it possible the  
4 tortoises could -- though they're inhabiting those  
5 burrows, could move through those trestles in the railroad  
6 tracks to the south?

7 MS. MILLER: Absolutely.

8 MR. BASOFIN: Okay. And is it possible the  
9 tortoises could then move from the area between the  
10 railroad tracks and the highway through the culverts to  
11 the south?

12 MS. MILLER: It's possible.

13 MR. BASOFIN: Thank you.

14 Okay. And I have a few questions for Mr. White.

15 Mr. White, you testified briefly earlier  
16 regarding the penstemon and the possibility of sand  
17 transport or obstruction to sand transport and how it  
18 might affect the penstemon.

19 And in your testimony you referenced a monitoring  
20 plan that's in a Condition of Certification to be put in  
21 place that would monitor sand transport from the site, is  
22 that right?

23 MR. WHITE: That's correct.

24 MR. BASOFIN: Okay. And how long would that  
25 monitoring -- how long would that monitoring go on for?

1 What would be the timing of it?

2 MR. WHITE: It's in Condition of Certification  
3 12, which you might be familiar with. It's a pretty long  
4 one. Section A, paragraph J, Off-Site Sand Transport  
5 Monitoring and Management.

6 Do you want me to read through this until I find  
7 it?

8 MR. BASOFIN: Sure.

9 MR. WHITE: "Specify methods and schedule for  
10 annual sand transport monitoring throughout the first five  
11 years of the project's life."

12 MR. BASOFIN: And is there a condition applicable  
13 to this project that would require some sort of action,  
14 some sort of adaptive management if the monitoring found  
15 that there was an impact to the sand transport?

16 MR. WHITE: There is. That's later in the same  
17 measure.

18 "Development of adaptive management strategies to  
19 supplement eastward sand transport into the ACEC if  
20 needed. These strategies may include revisions to project  
21 fencing design, importing sand from off-site, or  
22 transporting sand across a project site for further  
23 dispersal."

24 MR. BASOFIN: And is it your opinion that -- I  
25 think I had heard you mention earlier that there is a less

1 sand transport than you had originally thought from the  
2 site to the west -- or to the east.

3 MR. WHITE: Well, it was a question that we had.  
4 I don't think that, you know -- in the analysis of the  
5 project. We were aware that there was fine windblown sand  
6 on the project site, and further that there was fine  
7 windblown sand off-site to the east and that the  
8 prevailing wind is from west to east. And so it was  
9 something that we were curious about and we -- and we  
10 looked into. That was the work by Phil Williams  
11 Associates.

12 MR. BASOFIN: Okay. In turning to the 250-foot  
13 buffers for the penstemon that are found on the actual  
14 project site, is there some sort of adaptive management  
15 regime for those occurrences of penstemon if they do not  
16 survive or if they are not propagating as one would hope  
17 they would?

18 MR. WHITE: In paragraph 2 of the same section A  
19 of the same mitigation measure, there's a requirement to  
20 establish these 250-foot buffer areas around the plants;  
21 designate them as environmentally sensitive areas; to  
22 collect baseline data on the special status plants within  
23 those areas, including the penstemon and others that might  
24 be in there; to devise success criteria's thresholds, some  
25 to do literature review of penstemon propagation; to

1 implement a series of protection and avoidance measures;  
2 monitoring and reporting remedial action measures; seed  
3 collection, I mentioned earlier; the propagation research.

4 MR. BASOFIN: Okay. But besides propagation  
5 research and seed collection, is there anything that  
6 would -- is there anything that's focused on adaptively  
7 managing those specific occurrences?

8 MR. WHITE: The development of the Whitemargin  
9 Beardtongue Impact Avoidance and Minimization Plan  
10 requires a collection of baseline data, development of a  
11 plan with success criteria for persistence of the plants  
12 in those areas, conducting a literature review to review  
13 all available research and literature on the life  
14 histories of plants.

15 PRESIDING MEMBER EGGERT: Excuse me for  
16 interrupting, Mr. White. I guess maybe one question.

17 Is there anything different about this with the  
18 revised project?

19 MR. WHITE: No, there's not.

20 PRESIDING MEMBER EGGERT: Okay. Thank you.

21 MR. BASOFIN: And you mentioned the collection of  
22 baseline data. Would that baseline data include both the  
23 occurrences of penstemon that are above ground as well as  
24 seed banks?

25 MR. WHITE: I don't how you could monitor -- I

1 don't know how you could quantify a seed bank.

2 MR. BASOFIN: I believe there's a formula or a  
3 model of some kind that would determine how many -- an  
4 estimation of seed banks.

5 MR. WHITE: I'm not familiar with it.

6 MR. BASOFIN: Okay. So seed banks wouldn't be  
7 included in the baseline data that's collected?

8 MR. WHITE: I wouldn't expect them to do that,  
9 no.

10 MR. BASOFIN: Okay. Thank you.

11 Okay. I think that's all I have for right now.  
12 Thank you.

13 HEARING OFFICER KRAMER: Ms. Miles.

14 MS. MILES: My first question is for Mr. Otahal.

15 CROSS-EXAMINATION

16 MS. MILES: Is there any grazing or domestic  
17 sheep in that project area that you're aware of?

18 MR. OTAHAL: No, there's not.

19 MS. MILES: Thank you.

20 Ms. Miller, on August 5th you testified that "We  
21 consider indirect effects that would be lost of home range  
22 for the tortoise that are within an approximately  
23 thousand-foot buffer of the project loss of habitat for  
24 the tortoise." So this was your oral testimony. And I  
25 just have a few questions about that.



1           Is this testimony still accurate for the 5.5 and  
2 6 scenarios.

3           MS. MILLER: Yes, we -- there's still the  
4 1,000-foot buffer that would be an indirect effect to  
5 habitat for the tortoise.

6           MS. MILES: And what is the anticipated fate of  
7 Desert Tortoise that are within the 1,000 foot buffer?

8           MS. MILLER: I think there would be potential  
9 loss of foraging and other edge effects to the tortoise  
10 within that thousand foot.

11           MS. MILES: Would you expect any mortality as a  
12 result of that?

13           MS. MILLER: I don't think so, not anymore than  
14 existing other edge effect areas.

15           MS. MILES: And so would this be possibly  
16 considered a take of tortoise?

17           MS. MILLER: Yes.

18           MS. MILES: And did the applicant calculate the  
19 loss of Desert Tortoise habitat and take of Desert  
20 Tortoise within these buffers and provide that estimate in  
21 their documentation?

22           MS. MILLER: Yes, that was part of the estimates  
23 of the indirect effects to tortoise, both by the applicant  
24 and by staff in our overall estimates of impacts to  
25 juveniles and adults. And we also estimated the edge

1 effects. And so with the 5.5 scenario it's 1582 acres  
2 approximately, and with the Scenario 6 it was  
3 approximately 1421 acres of potential effects.

4 MS. MILES: And where did the 1,000-foot number  
5 come from?

6 MS. MILLER: That's a general estimate of edge  
7 effects on wildlife.

8 MR. OTAHAL: Well, actually that came from CEC.

9 MS. MILLER: And CEC, right.

10 MR. HUNTLEY: That's right.

11 MS. MILES: I'm sorry. Could you clarify?

12 MR. HUNTLEY: The thousand foot came from CEC.

13 MS. MILES: And what does that number come --  
14 where does it come from for CEC?

15 MR. HUNTLEY: Well, first of all, we know they're  
16 going to be indirect effects to tortoises adjacent to the  
17 project. However, I believe testimony provided by both  
18 Fish and Game, Fish & Wildlife Service, and BLM and staff  
19 indicate that tortoises are likely to persist and are not  
20 substantially impacted by noise and other things.

21 The thousand foot was just a general buffer that  
22 we placed on the project for all wildlife in a sense.

23 MS. MILES: Okay.

24 MR. OTAHAL: Yeah. And I would also suggest that  
25 both of the scenarios, being smaller footprints, will have

1 less edge effects, because as you reduce your project,  
2 you're going to be reducing the edges.

3 MS. MILES: And then, Ms. Miller, do you recall  
4 in your testimony that you estimated the number of  
5 tortoises that would be affected in the buffer and  
6 Not-a-part areas, I believe it was, 61 tortoises for both  
7 Scenario 5.5 and Scenario 6? Is that correct?

8 MS. MILLER: Yes. I can look at it.

9 MR. HUNTLEY: That's what's in staff's table as  
10 well, I believe.

11 MS. MILLER: Yes.

12 MS. MILES: And there is mention of the  
13 Not-a-part Area A. Could you explain where that is?

14 DR. MOCK: One to the very north.

15 MS. MILLER: It's in the north between the --  
16 like the chimney of Phase 2 on the west side and then the  
17 other part of Phase 2 on the east side.

18 MS. MILES: So it's what's identified on all the  
19 maps as Not-a-part 1?

20 MS. MILLER: Yeah.

21 MS. MILES: Okay. So the 61 Desert Tortoises --  
22 let's see. So would it be 61 Desert Tortoises in both  
23 Scenario 5.5 and Scenario 6? I mean --

24 MR. HUNTLEY: Staff left the numbers the same  
25 rather than trying to recalculate on the different

1 buffers. We did not have the Fish & Wildlife formula to  
2 apply for the broken-down areas, so we left the density  
3 roughly the same. And we felt it adequately covered then,  
4 because the range of Desert Tortoises is so high or vary  
5 so much, we felt the number of tortoises would fall within  
6 that number which we disclosed in the document.

7 DR. MOCK: Just about 250 acres less edge effect  
8 with Scenario 6. So, you know, it's about a quarter  
9 section of less impact. But it would be only a few  
10 more -- or less tortoise probably. So they were being  
11 very conservative.

12 MS. MILES: Ms. Miller, regarding the  
13 translocation of Desert Tortoise, if you find that there  
14 are more tortoises that need to be moved than can be moved  
15 in a short distance relocation or 500 meter relocation,  
16 where would the applicant propose to move the tortoises?

17 MS. MILLER: Currently the plan is to move them  
18 to the Ord-Rodman DWMA translocation area if we run out of  
19 room in the Pisgah ACEC or the northern linkage.

20 MS. MILES: And is the applicant proposing to  
21 only relocate tortoises to the northern linkage, or are  
22 you also proposing to translocate tortoises to the  
23 northern portion?

24 MS. MILLER: Only less than 500 meters. So  
25 relocate.

1 MS. MILES: Only relocate. Okay.

2 And has the applicant completed the survey effort  
3 in the Ord-Rodman DWMA at this point?

4 MS. MILLER: No, we have not.

5 MS. MILES: With regard to tortoises if they're  
6 potentially moved to or translocated to the Ord-Rodman  
7 DWMA, how will the applicant determine whether they're  
8 moving a healthy tortoises in proximity to a sick  
9 tortoise?

10 MS. MILLER: We'll be conducting blood testing on  
11 all tortoise that will be translocated. And that's  
12 identified in the translocation plan and in the draft in  
13 it. That portion hasn't really changed very much based on  
14 the 5.5 or 6 scenarios.

15 MS. MILES: So would you only be disease testing  
16 one tortoise for every tortoise -- one tortoise that  
17 you're translocating?

18 MS. MILLER: We're disease testing the tortoise  
19 that we would translocate and the tortoise within the  
20 resident and the control population as well.

21 MS. MILES: I'm sorry. And the control.

22 But I guess what I'm trying --

23 MR. OTAHAL: Actually I would like to address  
24 that. There's some new guidance that has been coming out  
25 of DTRO. I think it's like in the last week that we've

1 received that. And they will be requiring us to do a --  
2 for the Ord-Rodman, we basically have to determine with a  
3 95 percent confidence limit that the overall prevalence of  
4 disease will be less than 5 percent in the entire  
5 population. And we have done so on the back of the napkin  
6 determinations, and it looks like we will probably have to  
7 disease test probably around a hundred animals in the  
8 Ord-Rodman because of that change. And that's a change  
9 that literally is less than a week old.

10 MS. MILES: So if you want to move any tortoises  
11 into Ord-Rodman -- into the Ord-Rodman DWMA, you'll have  
12 to disease test at least a hundred animals, is that your  
13 testimony or your comment?

14 MR. OTAHAL: That's the current guidance that we  
15 are receiving.

16 MS. MILES: And has staff considered this  
17 guidance?

18 MR. HUNTLEY: This is all new information as far  
19 as the translocation plan.

20 MS. MILES: Did staff receive this information  
21 prior to tonight right now?

22 MR. HUNTLEY: Staff just heard about it a few  
23 minutes before.

24 MS. MILES: Would staff be revising some of their  
25 testimony on this basis?

1 MR. HUNTLEY: Staff stands by their testimony.  
2 And that's why we have a translocation plan where some of  
3 these things are going to get hammered out in.

4 MS. MILES: So would staff estimates of the  
5 number of the tortoise likely -- the tortoise mortality  
6 change as a result of this?

7 MR. HUNTLEY: Tortoise mortality could change if  
8 there's a 5 percent mortality for any handled tortoises.  
9 I'd have to look at my tables. But I believe the range of  
10 direct and indirect effects likely covers that.

11 So I think the total disclosure number is okay.  
12 But it is a potential mortality issue.

13 MR. RITCHIE: A quick question on the numbers  
14 there, Mr. Huntley.

15 You were basing that off of a 5 percent mortality  
16 rate for just pure handling. But the receptor sites you  
17 were previously using a 50 percent mortality rate,  
18 correct?

19 MR. HUNTLEY: No, that's -- pardon me. For the  
20 control site for a tortoise that's just handled, blood  
21 tested, and radio tagged, we placed a 5 percent mortality  
22 rate on that based on feedback from the Fish and Game.

23 For the translocated tortoise, the tortoise  
24 physically moved from the project site and placed in a  
25 translocation site, we assumed a 50 percent mortality

1 figure.

2 MR. RITCHIE: But then similarly a 50 percent  
3 mortality figure for the host tortoise in the  
4 translocation site who is handled and tagged and disease  
5 tested?

6 MR. HUNTLEY: That's right.

7 MR. RITCHIE: But you wouldn't apply that 50  
8 percent mortality rate --

9 MR. HUNTLEY: -- not to just an animal that was  
10 disease tested.

11 MR. RITCHIE: Even if that -- so it's the -- I  
12 guess I'm confused.

13 MR. HUNTLEY: It's apparently --

14 MR. RITCHIE: Previously the distinction --

15 MR. HUNTLEY: The translocated -- I'll have to  
16 look at my numbers. And forgive me if I'm getting muddled  
17 a little bit. But the translocated tortoises have a 50  
18 percent -- well, we assumed a 50 percent mortality rate.  
19 I believe that also included the host population. But a  
20 tortoise that is merely handled for disease testing and  
21 then placed back on the ground by a fairly controlled  
22 site, we had a 5 percent mortality rate.

23 MR. RITCHIE: And that 5 percent you're now  
24 applying to the receptor sites as well based on the  
25 disease testing?



1           MR. HUNTLEY: That math would probably have to be  
2 done -- borne out.

3           MR. RITCHIE: How come at the translocation site,  
4 the receptor site, it wouldn't still be 50 percent for all  
5 the tortoises that were handled for the disease testing?  
6 I mean I understand the control, it's not changing.  
7 But --

8           MR. HUNTLEY: I can't speak to what Fish &  
9 Wildlife Service and Fish and Game have recently told BLM.  
10 If they're talking about testing a hundred animals for  
11 translocating approximately 13 animals, we're still going  
12 to apply our mortality rate for the 13 animals. I don't  
13 think it's a straight, you know, one-to-one ratio.

14           We placed the 50 percent mortality rate because  
15 we felt the animals would be competing, some would be  
16 excluding other animals, et cetera. And it was based on  
17 translocating a large number of animals.

18           I don't think that we're going to apply a 50  
19 percent mortality rate to any animal within the  
20 translocation site that's merely disease tested. I don't  
21 think that's appropriate.

22           MR. RITCHIE: Thanks for that clarification.

23           MR. OTAHAL: So for that hundred or so animals  
24 that I was talking about, we would be applying the 5  
25 percent mortality rate, because we're just now testing

1 those.

2 MR. RITCHIE: Right. Unless you were moving 13  
3 into that site. And then for 87, it would be 5 percent  
4 and 13 it would be 50 percent.

5 MR. HUNTLEY: All of these numbers, by the way,  
6 fall within, you know, the mortality estimates for the  
7 proposed project identified in the SSA. Although we are  
8 trying to minimize impacts to tortoises by avoiding the  
9 highest concentration to population. So the overall  
10 mortality numbers, even if they increase, if they're  
11 disease testing up to a hundred animals, it has been  
12 analyzed and addressed at least as far as a pure raw  
13 number in the SSA.

14 MR. RITCHIE: And then those -- but those  
15 calculations would be explained in a --

16 MR. HUNTLEY: -- probably have to be clarified in  
17 the BMPD.

18 MR. RITCHIE: Thank you.

19 MS. MILES: Mr. Otahal, could you, say, repeat  
20 what it was in the guidance that came out? It was 5  
21 percent -- I'm sorry -- a hundred tortoises would have to  
22 be diseased tested for what?

23 MR. OTAHAL: Okay. What the new guidance is -  
24 and, again, this is less than a week old - is that for the  
25 Ord-Rodman we would need to determine with 95 percent

1 confidence that there is a 5 percent or less prevalence of  
2 disease in the entire population. And doing a napkin-type  
3 of analysis on that, we were looking at probably about a  
4 hundred animals needing to be sampled.

5 Don't hold me to that number. That number is not  
6 a final number. That's just a rough guesstimate that  
7 we've been throwing around to start looking at what  
8 potential impacts that will have on accomplishing the  
9 translocation. So that's not an exact number.

10 MS. MILES: Are there any other -- is there any  
11 other facts or information in this guidance that would be  
12 relevant to this proceeding that you could share with us?

13 MR. OTAHAL: No, I don't believe so.

14 MS. MILES: Okay.

15 MR. OTAHAL: And to do the -- you know, the  
16 guidance is continuing to change. It's a moving target.

17 MS. MILES: Thank you.

18 I have a few questions related to a Desert  
19 Tortoise population estimate in the Desert Tortoise  
20 translocation plan. We were looking through the numbers  
21 and we were having a hard time understanding how they  
22 lined up.

23 And I was wondering if I could actually have  
24 Scott Cashen assist me just with making sure these  
25 questions are asked in an intelligible way at this hour.

1 MR. CASHEN: You want me to ask them?

2 MS. MILES: Yeah.

3 MR. CASHEN: And I'll go as quickly as possible.  
4 And the reason that we're concerned about this is because  
5 so much of the testimony that we've heard has to do with  
6 how many tortoises in theory are being avoided by these  
7 two scenarios.

8 So if you could turn to the back of the  
9 translocation plan and to Appendix C. There's the  
10 population estimate formula forms.

11 HEARING OFFICER KRAMER: Okay. Hold on.

12 Is that an exhibit?

13 MS. MILLER: It should be. It's part of the  
14 translocation plan that was docketed in August.

15 MR. RITCHIE: 93, yes.

16 HEARING OFFICER KRAMER: Okay. Yeah, that's  
17 right.

18 MR. CASHEN: Do you want me to wait for people to  
19 have a chance to open it up or just fire?

20 HEARING OFFICER KRAMER: It looks like they're  
21 opening.

22 Go ahead.

23 MR. CASHEN: Okay. And so what this has is  
24 there's three pages. The first page is the entire site,  
25 second page is Phase 1 area, third page is the Phase 2

1 area. And so I'm under the assumption that Phase 1 and  
2 Phase 2 equals the entire project and the acreage values  
3 actually add up to 6,215. So --

4 HEARING OFFICER KRAMER: Okay. How relevant is  
5 this exercise going to be to a project that now is going  
6 to be less than 6,215?

7 MR. CASHEN: Well --

8 HEARING OFFICER KRAMER: Is this simply an attack  
9 on the credibility of the preparers of the plan, or can it  
10 be related to the new footprints that we're looking at?

11 MR. CASHEN: As best I could -- because so much  
12 of the testimony that was submitted by both the applicant  
13 and staff last week focused on the number of tortoises  
14 that were being avoided by these two scenarios. And so I  
15 spent the weekend going over these numbers. And I am  
16 fairly convinced at this point that these numbers were not  
17 calculated correctly. And if you'd like to give -- I was  
18 planning on giving a couple just real sort of brief  
19 examples on how I derived this conclusion.

20 If we're willing to --

21 HEARING OFFICER KRAMER: But you're talking about  
22 the plan that relates to the old proposal, right?

23 MR. CASHEN: The same formulas and the same  
24 errors were applied to the new formulas -- or the new  
25 numbers. Those formulas were not presented, however, in

1 either staff's testimony or the applicant's testimony. So  
2 this is all I have to have to go off of in demonstrating  
3 that the formulas --

4 HEARING OFFICER KRAMER: Okay. What's the  
5 magnitude of the errors. One or two tortoises, is that  
6 what we're down to, plus or minus one or two tortoises?

7 MR. CASHEN: I don't know, because I do not have  
8 the data to be able to independently calculate the  
9 estimates. However, even the -- as you can infer from  
10 these very large confidence intervals, an estimate of one  
11 or two tortoises times a detectability coefficient that is  
12 less than 100 percent, considerably less in some cases,  
13 and times a detectability -- or a probability of being  
14 above ground coefficient can greatly influence even just a  
15 couple numbers.

16 MS. MILLER: You know, this is -- we agree with  
17 that, and that's -- you know, this formula was formulated  
18 by the Fish & Wildlife Service. All of these tables that  
19 were provided in the translocation plan were reviewed by  
20 Fish & Wildlife, as well as BLM looked at it, you know.

21 So, they are -- the confidence intervals are very  
22 large. But it's based on the number of transects, the  
23 number of tortoise monitored transect. And, truly,  
24 this -- is you know these -- these numbers are -- I don't  
25 know how we could really identify beyond what's on these

1 tables like how it was done. You know, we followed the  
2 formula, we followed -- this is a table that's provided --  
3 it's an active table that has a formula within it. So --

4 MR. CASHEN: Okay. So let me just ask one  
5 question then.

6 So if there were 37 tortoises detected during the  
7 surveys during Phase 2, which is what it says on the last  
8 page, and there were 14 tortoises detected in Phase 1, and  
9 14 plus 37 equals 51, how come it says 48 for the entire  
10 site? I mean that's just -- maybe there's an explanation.  
11 But it seems pretty obvious to me that that's an error.  
12 How can there be --

13 MR. OTAHAL: Yeah, the staff has redone all the  
14 calculations. So I wouldn't even be looking at those.  
15 Those are irrelevant numbers at this point, especially if  
16 we're talking about the scenarios. Those have all been  
17 calculated. And we went through this whole calculation  
18 and how there's uncertainty in everything. I believe  
19 that's all been covered, you know, hours ago.

20 HEARING OFFICER KRAMER: Well, Mr. Otahal, I  
21 think I'll give him one -- at least one test of the  
22 system.

23 Why is it that 1 plus 2 doesn't equal 3, if you  
24 will? Is there something about the phasing where you  
25 would assume some tortoises were sent off to somewhere

1 else to live or -- why would not the sum of the two phases  
2 be the sum of the total or be the total for the project  
3 site?

4 MR. OTAHAL: It should be. And if it's not,  
5 there's probably an error in these calculations. And  
6 that's what I'm saying, is that these calculations don't  
7 really -- aren't really relevant now. I would be looking  
8 at the Staff Assessment numbers and seeing if there's any  
9 errors there that need to be corrected.

10 HEARING OFFICER KRAMER: Okay. Well, do we have  
11 a revised relocation plan calculation for either of the  
12 scenarios?

13 MS. MILLER: We do.

14 What is the number? 98.

15 We're still working on the translocation plan  
16 right now, so --

17 MR. OTAHAL: Yeah, those are some numbers that I  
18 believe are still being crunched at this point, because I  
19 think that was something that Saturday I requested URS to  
20 start working on - it's the new numbers - so that we could  
21 apply those to the Supplement No. 5 of our Biological  
22 Assessment. So I don't believe those numbers have  
23 actually been calculated yet.

24 HEARING OFFICER KRAMER: Okay. But that sort of  
25 magic formula that tells you how many tortoises you think



1 are there based on what you saw, that was applied to the  
2 observations, correct, and that's where staff got the  
3 numbers they came up with?

4 MS. MILLER: Yes. Then we used the adult  
5 tortoise, not the juvenile tortoise that were observed.  
6 So the numbers for the adults are correct within these  
7 tables.

8 MS. FOLEY GANNON: She's talking about the  
9 tables --

10 HEARING OFFICER KRAMER: These tables being  
11 precisely which tables?

12 MS. MILLER: So for Phase 1 and Phase 2 the  
13 numbers were incorrect.

14 HEARING OFFICER KRAMER: Yeah, okay. You're  
15 looking at a table. So --

16 MS. FOLEY GANNON: Well, she's been looking at  
17 Exhibit 93, which is -- I'm sorry -- translocation plan,  
18 which was Exhibit 93. And it's tables -- what are the  
19 table numbers?

20 MS. MILLER: It's still at Appendix C, and it's  
21 the forms. So it's the Calico Solar Phase 1 areas. So  
22 it's the second.

23 HEARING OFFICER KRAMER: Okay. No, I guess I had  
24 moved on to -- and I thought you were talking about under  
25 the new scenarios.

1 MS. MILLER: I don't have those.

2 MS. FOLEY GANNON: Those are new scenarios.

3 HEARING OFFICER KRAMER: I guess I'm trying to  
4 get Mr. Cashen to focus on something that's relevant to  
5 the new scenarios. And then he can start looking at those  
6 and perhaps comment during the comment period.

7 Well, there's a table on page C.2-27 of the SS --  
8 let's call it the S2A2, I guess -- SSAA.

9 It looks like there were tables both for -- it's  
10 Table 6A. And then a couple pages later there's a Table  
11 6B that -- is this the relevant calculation for the  
12 impacts on tortoises?

13 MR. HUNTLEY: Scott?

14 MR. CASHEN: Yes.

15 MR. HUNTLEY: Are you looking at the tables where  
16 we end up with 11 tortoises with a range of 4 and 29?  
17 Where are you looking?

18 MR. CASHEN: I can look at that one, if you'd  
19 like. I got it.

20 MR. HUNTLEY: Well, taking a step back - and  
21 maybe I don't understand - is for the original proposed  
22 project identified in the SSA, the 14 and 37 tortoises add  
23 up to 51 adult tortoises, correct? Number of tortoises  
24 found during surveys was 14 in one location and 37 in the  
25 other, correct?

1 MR. CASHEN: I don't know. I'd have to -- I'll  
2 take your word for it.

3 MR. HUNTLEY: I want to make sure we're looking  
4 at the same tables if we're talking numbers. And I think  
5 I'm looking at the original tables and you're looking at  
6 the revised scenario 5 and Scenario 6 tables.

7 HEARING OFFICER KRAMER: And where are you  
8 looking, in the Supplemental Staff Assessment?

9 MR. HUNTLEY: No, I'm looking in Appendix A of  
10 the BA.

11 MR. CASHEN: I'm sorry. I'm not totally sure I  
12 understand what your concern is. But my concerns  
13 definitely revolve around the numbers that have been  
14 presented in the Supplemental Staff Assessment addendum  
15 from last week, as well as the applicant's testimony which  
16 was submitted last week. And both of those have to do  
17 with the two scenarios, 5.5 and 6.

18 HEARING OFFICER KRAMER: Well, those seem like  
19 more appropriate questions than going back to the tortoise  
20 relocation plan.

21 MR. CASHEN: But unfortunately the formulas  
22 weren't shown in either of those documents. So the only  
23 place that I had to go to the formulas was in the  
24 translocation plan.

25 And so -- yeah, I can give you some examples on

1 here, if you'd like, if you want some more examples of  
2 problems I saw.

3 I thought that those were --

4 HEARING OFFICER KRAMER: Well, it's more helpful  
5 to us to talk about what the range of variability you're  
6 finding in the new numbers than the old numbers.

7 MR. CASHEN: Well, let me ask this. I noticed  
8 that the two -- the table that the applicant presented on  
9 the numbers and the table that staff presented have the  
10 same -- the exact same values. Is that correct?

11 MR. HUNTLEY: I don't believe that's correct. I  
12 believe our total adult, subadult, and juvenile tortoises  
13 from staff are different.

14 MR. CASHEN: Okay. And so how did -- so how  
15 did -- since you volunteered to represent this, Chris, how  
16 did you calculate these numbers that you presented in the  
17 Supplemental Staff Assessment addendum?

18 MR. HUNTLEY: The numbers that I received, which  
19 had the -- for example, for Scenario 5.5, the 11 with a  
20 range of 4-29 was provided by the applicant with a table  
21 of the U.S. Fish & Wildlife formula. I contacted Fish &  
22 Wildlife Service to ask if those numbers were okay. And  
23 then I was told those numbers appeared okay.

24 Then I used the formulas that I applied for the  
25 proposed project by Turner, et cetera, to calculate the

1 number of juvenile tortoises, the number of eggs. And  
2 then I applied those to determine the total adult,  
3 subadult, and juveniles for the min-max. And to do  
4 that -- the numbers are not -- the columns are not  
5 additive -- you have to take -- for the lowest number you  
6 have to take the lowest confidence level of 4 and apply  
7 the lowest percentage of --

8 MR. CASHEN: I understand that.

9 MR. HUNTLEY: Okay. But the 11 with the range of  
10 4 to 29, that was the number that was provided on the  
11 spreadsheet by the applicant, because we asked for that.

12 MR. CASHEN: Okay. So, either the applicant or  
13 staff, are you aware that there are two different  
14 formulas, depending on whether your transect lengths are  
15 the same or are not the same?

16 MR. HUNTLEY: If we've made an error on  
17 something, I'll be happy to look at it if you point it  
18 out.

19 MR. CASHEN: Do you recall during the workshop  
20 last week when Ashley Blackford said that if we're going  
21 to -- if we're going to have revised scenarios and have  
22 actual tortoise numbers, there's going to need to be some  
23 serious reworking of the transect data in order to devise  
24 those numbers? Do you remember her saying that?

25 MR. HUNTLEY: Yes, I do.

1           MR. CASHEN: And that would be because the  
2 transects would be broken into unequal length because of  
3 this curved lined that has been presented in scenario.  
4 And that's a completely different formula. And that  
5 formula was not used to calculate these numbers. So  
6 inherently to me there's something wrong.

7           There's also -- I think that it's -- it's  
8 misleading at a minimum to say that there's an estimate of  
9 two adult tortoises and a confidence interval of 0 to 10.  
10 If there are two tortoises detected on the site, then by  
11 nature there's a minimum of two. And the Fish &  
12 Wildlife's formula actually does address this issue. And  
13 it says that these are positively skewed confidence  
14 intervals, meaning you can't have zero if you actually  
15 detect two. And so I think this gives the reader a  
16 misleading representation of what the actual impacts would  
17 be.

18           MR. HUNTLEY: I think we've -- barring any flaws  
19 with the formula that's been applied that we used, the  
20 range of tortoises I believe would cover that. We have a  
21 high of up to 20 tortoises. So we applied the formula and  
22 if had a zero value. But we tried to disclose that in the  
23 document. Use of a zero value in the equation illustrates  
24 that the maximum tortoises -- yeah, it basically -- the  
25 way it was described earlier, if you have a zero, it skews

1 us automatically. Whenever you apply a math equation with  
2 a zero in it, you end up with a zero value. Although we  
3 recognize there's a minimum of two adult tortoises on the  
4 site -- or two tortoises on the site. I think they  
5 detected one adult are four juveniles -- or three  
6 juveniles on the Scenario 6 project area.

7 MS. MILES: I have a question regarding the staff  
8 analysis and follow-up to Mr. Huntley.

9 Do you know what the population estimate is for  
10 the southern Not-a-part section for Desert Tortoise?

11 MR. HUNTLEY: No, we don't. I don't believe that  
12 was ever surveyed.

13 MS. MILES: Would Desert Tortoises require  
14 translocation in that area?

15 MR. HUNTLEY: They wouldn't be translocated from  
16 that area.

17 MS. MILLER: We did not survey the Not-a-part  
18 area during any of the surveys that we did.

19 MR. OTAHAL: Yeah. And actually that was  
20 incorrect, Chris. The animals in the Not-a-part 2 by the  
21 guidance from Fish & Wildlife is that we want to move  
22 those tortoises out because they're going to have project  
23 on three sides. So we think that it would be better to  
24 move those tortoises out. So those would be going to the  
25 Ord-Rodman. They would be long distance translocatees.

1 MR. HUNTLEY: Chris, we're not talking about the  
2 two animals that were identified in the exclusion area --  
3 the culture resource exclusion area west of Not-a-part 2.

4 Are you now saying that Not-a-part 2 will be  
5 surveyed and tortoises that are found there will be  
6 translocated?

7 MR. OTAHAL: Yeah, the idea was to move those two  
8 tortoises that were identified in the exclusion area. And  
9 also if we can get on to any of the private properties, to  
10 try to move those tortoises as well. But that's all  
11 contingent upon being able to actually get access to those  
12 animals.

13 MR. HUNTLEY: Right. We considered the two  
14 tortoises in our analysis but not the Not-a-part Area 2.

15 HEARING OFFICER KRAMER: And where is it that  
16 these two that you considered are located?

17 MR. HUNTLEY: They're located in a culture  
18 resource exclusion area just west of the Not-a-part Area  
19 2. There's one juvenile and one subadult or -- yeah, an  
20 adult and a juvenile. Pardon me.

21 HEARING OFFICER KRAMER: Okay. I haven't looked  
22 at the clock for a while.

23 I shouldn't have, but I did.

24 Okay. Any more questions?

25 MS. MILES: Yes, unfortunately.



1 HEARING OFFICER KRAMER: Remember where we are  
2 here. The committee heard a lot of evidence. It decided  
3 that it could not approve the proposed project or did not  
4 wish to at least without exploring further some  
5 alternatives that were not adequately delineated among the  
6 alternatives that had already been analyzed. Two more  
7 alternatives were brought forward. And we are here to  
8 hear about how they differ, comparing and contrast them,  
9 if you will, with the proposed project and the other  
10 previously analyzed alternatives, if that's appropriate.  
11 And not to relitigate connectivity issues that haven't  
12 changed and not to revisit old issues.

13 So with that in mind, go ahead.

14 MS. MILES: Thank you.

15 In the staff analysis, the SSAA, staff concluded  
16 under Scenario 5.5 that approximately 22 adult and  
17 subadult Desert tortoises and 56 eggs would be subject to  
18 direct and indirect effects on the project site.

19 In addition it's expected that 56 eggs and 2  
20 juvenile Desert Tortoises will be lost during  
21 construction. And it assumes 85 percent of juveniles will  
22 be overlooked, based on a 15 percent detection rate.

23 How did you conclude that only 2 juvenile Desert  
24 Tortoises will be lost during construction, when it looks  
25 to me like 85 percent of 11 would be 9?

1 MR. HUNTLEY: Let me look at my text here.

2 That might be a typographical error, because we  
3 identified, you know, 22 total animals. I'd have to do  
4 the math with a calculator right now.

5 HEARING OFFICER KRAMER: What page was that on  
6 again?

7 MS. MILES: That's on page C.2-28.

8 And based on my last questioning regarding the  
9 Desert Tortoise in the Not-a-part area, I'm really not  
10 clear what the response was to that based on sort of  
11 conflicting responses, it seemed to me, from staff and the  
12 BLM.

13 But the 13 Desert Tortoises that are estimated  
14 for translocation, does that include any Desert Tortoises  
15 in the Not-a-part area, and would any Desert Tortoise in  
16 the Not-a-part area require translocation?

17 MR. HUNTLEY: At this point in time staff is not  
18 aware that Not-a-part Area 2, which is private land and  
19 which is not surveyed as part of this project, would  
20 require translocation of tortoises. But we did expect  
21 that the two tortoises to the west would be translocated  
22 off the project site.

23 MS. MILES: Okay. And then -- let's see. So do  
24 you recall how many juveniles were detected in Scenario  
25 5.5? It's on page 27.

1 MR. HUNTLEY: Scenario 5.5, I believe four  
2 juvenile tortoises were detected.

3 MS. MILES: So if the applicant detected 15  
4 percent of juveniles, then shouldn't the population  
5 estimate of juveniles be 27. Four times .15.

6 MR. HUNTLEY: I don't believe so. Because what  
7 we've ended up doing is - and this was the problem with  
8 applying formulas and ratios and things like that - we  
9 took the 6 adult tortoises -- or pardon me -- we took the  
10 11 tortoises - basically they were identified from the  
11 Fish & Wildlife formula - and applied the percentages to  
12 11. So we took the 31 and the 51 basically and ended up  
13 with the juvenile tortoise numbers from that number,  
14 rather than just adding the four.

15 So that's why we have a range of 5 to 11 juvenile  
16 tortoises, because it's based on a higher number -- on the  
17 Fish & Wildlife formula, not on the actual number of  
18 tortoises that were -- juvenile tortoises that were seen  
19 on a project site.

20 MS. MILES: Okay. Well, it's a little late to  
21 get into math, but that's where we're at.

22 Okay. So with regard to the formula, on page  
23 C.2-26 it says, "The formula is used to calculate the  
24 estimates of tortoise density, including adult, subadult,  
25 juvenile, and eggs, have been presented in the

1 Supplemental Staff Assessment and are not discussed  
2 further in this document."

3           And I was wondering if you could point me to the  
4 area in the Supplemental Staff Assessment where the  
5 formula is presented.

6           MR. HUNTLEY: It's our revision. It's our  
7 revised text. It's that table that was presented as part  
8 of the errata or addendum.

9           Want to add that table of the juveniles.

10          MS. MILES: Is it actually the formula?

11          MR. HUNTLEY: Yeah, the Turner formula is there.  
12 And then I thought I put in the basis -- or the bottom of  
13 the table.

14           Yeah, assume, you know, sex -- 1-to-1 sex ratio  
15 for determining that, use the Turner 31 to 51. Identified  
16 that. And then multiplied by the average for eggs. So  
17 those were the formulas that were identified.

18           I did not write out the entire formula. I'm  
19 happy to do so for you if you'd like it.

20          MS. MILES: Yeah, that would be helpful.

21          HEARING OFFICER KRAMER: Where were you reading  
22 from just now?

23          MR. HUNTLEY: I was reading from part of our -- I  
24 believe it's the errata. The was done where we provide --  
25 second errata, where we provide some revised impact

1 analysis on Desert Tortoises.

2 MS. FOLEY GANNON: It's on page 5.

3 HEARING OFFICER KRAMER: Okay. And I think  
4 that's Exhibit 310 then.

5 MR. HUNTLEY: And it also in a text form  
6 describes throughout that errata how we used the formulas  
7 to calculate certain things. But I'm more than happy to  
8 docket the formulas used to calculate.

9 MS. MILES: That would be very helpful.

10 MR. HUNTLEY: Sure.

11 MS. MILES: On page 29 in the Supplemental Staff  
12 Assessment errata it says that some juveniles may be too  
13 small to accommodate the radio tag. And so the final  
14 number of Desert Tortoise that are detected and  
15 translocated may be lower.

16 Does that mean that small tortoises would not be  
17 translocated?

18 MR. HUNTLEY: No, I believe they'd be  
19 translocated. They wouldn't be radio tagged. So you  
20 wouldn't have a mechanism for tracking them.

21 MS. MILES: Okay. So I think the statement might  
22 not be quite accurate on page 29.

23 MR. HUNTLEY: That's a fair statement.

24 MS. MILES: So also on page 29 it says that  
25 clearance surveys in Scenario 5.5 could result in the

1 mortality of up to 29 tortoises and 56 eggs. Whereas the  
2 total population estimate was 22 Desert Tortoises.

3           So if I'm getting this correctly, does that  
4 mean -- or would you concur that staff anticipates more  
5 Desert Tortoise potentially will die than are actually  
6 estimated to be on the project site?

7           MR. HUNTLEY: I need to make sure I'm on the same  
8 page as you are. Can you please identify.

9           MS. MILES: Page 29 -- 3.2-29.

10          PRESIDING MEMBER EGGERT: This is Commission  
11 Eggert.

12          Just a question, Ms. Miles. Is the intent of the  
13 line of questioning to call into question the validity of  
14 the formula or the accuracy in which it's been applied to  
15 these particular numbers?

16          MS. MILES: This particular question is really  
17 going to what is the effect of the mitigation strategy and  
18 whether -- if you end up with higher mortality than the  
19 actual number that are on the project site, then it goes  
20 to whether the agencies are really meeting their  
21 requirements of the Endangered Species Act in terms of,  
22 you know, providing further recovery and fostering the  
23 recovery of the species, and whether it's actually a valid  
24 strategy to do the translocation.

25          PRESIDING MEMBER EGGERT: Whether or not

1 translocation is a valid strategy for --

2 MS. MILES: As --

3 PRESIDING MEMBER EGGERT: Okay. I guess in terms  
4 of the --

5 MS. MILES: -- toward compliance with the  
6 Endangered Species Act.

7 HEARING OFFICER KRAMER: And an alternative would  
8 be what?

9 PRESIDING MEMBER EGGERT: Right. And also I  
10 guess the reason -- the importance of the formula for the  
11 determination of the number of tortoises affects this how,  
12 that are on the project site specifically?

13 MS. MILES: Well, I just wanted to make sure I  
14 was understanding the numbers correctly and then I -- did  
15 I even that conclusion -- that I could come to that  
16 conclusion based on whether these numbers -- whether I was  
17 understanding the numbers accurately.

18 MR. HUNTLEY: And, Ms. Miles, I believe you are  
19 understanding the numbers correctly, because we applied a  
20 50 percent mortality rate on translocated tortoises as  
21 both the animals and the receptor sites. So that's why  
22 the numbers are higher than the proposed project site.

23 MS. MILES: Okay. Thank you.

24 MR. RITCHIE: Two quick points, and then just  
25 going again.

1           That would go even higher now if we were doing  
2 disease testing a receptor site?

3           MR. HUNTLEY: Potentially. Although I believe  
4 DTRO and Ms. Blackford are on record saying that there  
5 doesn't appear to be any more increase in mortality rates  
6 for just handled tortoises.

7           MR. RITCHIE: Even if we applied the 5 percent --

8           MR. HUNTLEY: -- even that number --

9           MR. RITCHIE: -- it would be -- we'd be handling  
10 a lot more tortoises than we were previously thinking  
11 about?

12           MR. HUNTLEY: I want to be very careful not to  
13 put words into either DTRO's mouth. But I understood from  
14 the one study, and I understand from speaking with Ms.  
15 Blackford, that at least handled tortoises that are  
16 disease tested do not necessarily show an increased  
17 mortality rate. However, for the conservative purposes,  
18 Fish and Game and the staff are applying a 5 percent  
19 mortality rate. So hopefully we're overestimating the  
20 mortality of handled tortoises.

21           MR. RITCHIE: And then just quickly, Mr. Kramer,  
22 to your point, you asked what the alternative was. Sierra  
23 Club would suggest siting the project in an area where no  
24 tortoise need to be moved and therefore no translocation  
25 plan is necessary. Just as an idea.



1 MS. MILES: Regarding the letter from Tonya  
2 Moore, there were a number of criteria that she outlined.  
3 And I was wondering if you could -- Mr. Huntley, if you  
4 could respond to whether you know that the translocation  
5 area, specifically the northern area, what was the linkage  
6 area, will be given a level of protection equivalent or  
7 higher to a DWMA or ACEC?

8 MR. HUNTLEY: I'm not able to answer that at this  
9 time.

10 MR. OTAHAL: Yeah, I can. The current  
11 understanding that I have is that at least the linkage  
12 area that was proposed before the various scenarios were  
13 developed will have a restriction on renewable development  
14 placed on it as part of the EIS process that we're going  
15 through. And --

16 MS. MILES: So are you speaking just of the parts  
17 that were going to be within this project -- original  
18 project boundary or --

19 MR. OTAHAL: The 4,000-foot linkage that we were  
20 originally discussing, my current understanding is that we  
21 will be able to put a renewable restriction over that,  
22 basically excluding renewable energy projects from that  
23 linkage area. This is ongoing. This is changing. So  
24 this is the current scenario as of this morning.

25 And my understanding is that that provides

1 sufficient protection for Fish and Game to basically say  
2 that that is protected. It doesn't have to be in DWMA or  
3 ACEC. This level of protection is sufficient for them to  
4 be satisfied with moving animals into that linkage area.

5 MS. MILES: Now, how did this information come to  
6 you?

7 MR. OTAHAL: This is through multiple discussions  
8 with Fish & wildlife, Fish and Game that are ongoing on a  
9 daily basis.

10 MS. MILES: So who is it that would be putting  
11 this exclusion on to the land? It'd be BLM?

12 MR. OTAHAL: Yes. That would be part of our  
13 action in approving the project. We would approve the  
14 project and we would also -- I believe it's a plan  
15 amendment. I don't know for sure what the terminology is.  
16 But we would also be putting the restriction over that  
17 linkage.

18 MS. MILES: I don't remember seeing anything  
19 about this in the draft EIS or the final EIS. Can you  
20 tell me if this was a evaluated in either of those  
21 documents?

22 HEARING OFFICER KRAMER: Okay. Now, we're  
23 talking about BLM business.

24 MS. MILES: Well, the reason that this is  
25 actually directly relevant is because any tortoises that

1 would need to be translocated from the project site or  
2 relocated need to -- there's -- it seems that they should  
3 be in compliance Tonya Moore's letter, which discussed how  
4 the land would be protected.

5 MR. OTAHAL: And to kind --

6 HEARING OFFICER KRAMER: Let me stop you, Mr.  
7 Otahal.

8 Okay. Ms. Moore's letter came to us the last  
9 time. As I recall, we explored for some time all of the  
10 facets of her letter and how they applied to the  
11 strategies in this case. That hasn't changed by virtue of  
12 these two new potential footprints. You had several  
13 questions already where -- I'm sure you're very curious to  
14 know some of these answers. But I don't see the relevance  
15 to the decision that the Committee needs to make.

16 And we have a court reporter who's probably about  
17 to have his arms fall off.

18 And everybody I think -- now, some people are  
19 probably worried about their morning flights home.

20 So we need to efficiently finish this up. And  
21 that seems like a very detachable and unnecessary  
22 cul-de-sac to visit today -- this morning.

23 MS. MILES: I mean just briefly to respond for  
24 the record. I think that this is absolutely relevant to  
25 the mitigation that's being proposed for this project and

1 to the Committee's decision. And I'm sorry that it's the  
2 middle of the night. I can't say that that's my fault.  
3 Certainly haven't been the one who's been talking all day  
4 long. And I've waited patiently for my opportunity to do  
5 some cross-examination and direct examination. So --

6 HEARING OFFICER KRAMER: Well, and this was not  
7 something you would have known about, because it was  
8 obvious a surprise to I think everyone here.

9 MS. MILES: That's correct. But I certainly did  
10 know that there was an intention to only move tortoises to  
11 specific areas. And so that's what I was trying to learn.  
12 And this is directly relevant to that question.

13 HEARING OFFICER KRAMER: And was properly  
14 discussed -- BLM was discussed the last time. And here  
15 we're present for a more limited purpose, which is to  
16 finish up the last discussions, with a focus on footprint  
17 changes.

18 So do you have anything else?

19 MR. CASHEN: Mr. Kramer, as of Friday, middle of  
20 the day, the plan was to move tortoises to the Ord-Rodman  
21 DWMA. When staff's Supplemental Staff Assessment addendum  
22 came out at 5 o'clock on Friday, all of a sudden now  
23 tortoises are being moved to the linkage area. There's a  
24 very big difference in the potential impacts.

25 So I personally think that this is very relevant

1 to the line of questions relating to these two scenarios.  
2 There's been a complete 180 on what's happening to the  
3 tortoises that are being translocated off the project  
4 site.

5 PRESIDING MEMBER EGGERT: Maybe is a question for  
6 staff. In terms of the specifics, the details associated  
7 with the final home of the tortoises, is that something  
8 that you're proposing as a specific condition within the  
9 PMPD?

10 MR. HUNTLEY: This is not -- no, sir, this has  
11 not been identified in the language as X number of  
12 tortoises are going to the linkage area. The SSA  
13 identified that two tortoises were going to the Pisgah  
14 ACEC and the remaining tortoises were proposed to go to  
15 the Ord-Rodman DWMAs up to a certain number of tortoises.

16 However, in light of the reduced project  
17 footprint, the resource agencies who manage this species  
18 felt it would be appropriate to -- that some of these  
19 tortoises could be accommodated in that area in order to  
20 preserve portions of their home range, and in all essence  
21 likely decrease potential translocation mortality effects.  
22 So where that could occur, staff would support that.

23 PRESIDING MEMBER EGGERT: So that in terms of the  
24 final details of that, is it anticipated that that's to be  
25 dealt with in the presiding members' proposed decision or

1 that it would come from a final approved translocation  
2 plan?

3 MR. HUNTLEY: I would anticipate it in the final  
4 approved translocation plan. However, it wouldn't be  
5 impossible for us to speculate on a number of tortoises  
6 that are found.

7 But, again, it really is dependent on when the  
8 surveys are done and if tortoises are found within 500  
9 meters of the buffer. If they're not, they're  
10 automatically a long distance translocation site.

11 STAFF COUNSEL ADAMS: And staff is proposing no  
12 condition specifying where tortoises are translocated to.

13 PRESIDING MEMBER EGGERT: Okay. So I think, if I  
14 understand -- well, hold on a second.

15 Okay. Ms. Miles, we'll let you ask a few more  
16 questions on this topic. And I've noticed a pattern where  
17 you do tend to repeat yourself from question to question.  
18 So if you could be more surgical, we would certainly all  
19 appreciate it.

20 I do also want to just recognize the fact that,  
21 you know, appreciate that you've waited and that we have  
22 pushed the biology to the early -- these wee hours. But,  
23 yeah, please proceed.

24 MS. MILES: Thank you.

25 In the Supplement Staff Assessment addendum on

1 page C.2-30, staff states, "As required by CESA, under  
2 Scenario 5.5, a maximum of 181 tortoises and 56 eggs would  
3 be subject to direct and indirect effects."

4 And I was wondering, can you clarify what you  
5 mean by at numbers relating to the 181 max --

6 MR. HUNTLEY: The 181 is derived from Table 6A  
7 for Scenario 5.5. And that's just the total adult,  
8 subadult, juvenile, and eggs that either occur at the  
9 project site, the translocation area, the control area,  
10 the buffer areas. So we included that total number of  
11 tortoises as this could be a potential take. And that was  
12 done to make sure that we captured the broader number of  
13 tortoises.

14 MS. MILES: Okay. So that would also include the  
15 disease testing in the Ord-Rodman DWMA?

16 MR. HUNTLEY: It doesn't specifically identify  
17 the diseased tortoises, because we didn't know.

18 MS. MILES: Right. I understand that. But --

19 MR. HUNTLEY: My assumption is that it probably  
20 falls within the range identified. And it certainly falls  
21 within a range of tortoises identified in the SSA.

22 MS. MILES: And over what timeframe for take is  
23 being considered?

24 MR. HUNTLEY: For the proposed project, it would  
25 be construction and translocation and operation of the

1 proposed project. Should that number be crossed, they  
2 would have to reconsult.

3 MS. MILES: So for the life of the project?

4 MR. HUNTLEY: I believe that's the fact, yes,  
5 ma'am.

6 MS. MILES: And how will take be determined?

7 MR. HUNTLEY: Take has been determined for CESA  
8 as any of the animals directly or indirectly affected. So  
9 handled -- you know, subject to dust, vibration, noise,  
10 for the purposes of this document that's what we covered  
11 it as. The actual number of tortoises subject to direct  
12 mortality is much lower, or would expect it to be much  
13 lower.

14 MS. MILES: And once the Desert Tortoise are  
15 moved, takes are going to largely be out of the hands of  
16 the applicant. So how will exceeding take be prevented at  
17 that point?

18 MR. HUNTLEY: The translocated tortoises, if I'm  
19 correct, are going to be monitored for a number of years.  
20 And so they'll be monitoring tortoise mortality over time  
21 and those numbers will be recorded. And should those  
22 numbers exceed what's been authorized under CESA, it will  
23 have to result in a reconsultation or actually come back  
24 to the Committee.

25 MS. MILLER: The tortoise will be monitored for



1 five years, resident and control populations will be when  
2 translocated.

3 MS. MILES: So how would it be determined whether  
4 that number is exceeded after the five years of  
5 monitoring?

6 HEARING OFFICER KRAMER: Is there a number even  
7 established?

8 MS. MILLER: 107 was established by staff during  
9 the SSA. And for the 5.5 and 6 scenarios they kept it at  
10 107 to be conservative.

11 HEARING OFFICER KRAMER: Now, is that expressed  
12 in the condition then?

13 MR. HUNTLEY: It is. And I don't think the  
14 number is 107. I think the number is 98 in the  
15 translocation plan, which is the maximum number of  
16 tortoises that can be translocated. The actual number  
17 that's been identified for take has been identified for  
18 each of the -- in each of the scenarios.

19 I'll have to look at the condition to see whether  
20 we included that or not. If we haven't, we'll have to  
21 make sure we do so.

22 HEARING OFFICER KRAMER: Okay. Let me stop you  
23 for just a moment.

24 Who's still with us on the phone?

25 MR. AARDAHL: Jeff Aardahl is still here.

1 HEARING OFFICER KRAMER: Okay. Anyone else?

2 And so, Jeff, Mr. Basofin knows how to get in  
3 touch with you, right?

4 MR. AARDAHL: Could you repeat that please.

5 HEARING OFFICER KRAMER: Your witness, right?

6 MR. BASOFIN: He's my witness.

7 HEARING OFFICER KRAMER: Okay. Well, the only  
8 reason I ask is on my computer screen here controlling the  
9 WebEx, I just got a network message that I, you know,  
10 clicked through without seeing what it is. But I'm a  
11 little bit worried -- let's go off the record.

12 (Thereupon a recess was taken.)

13 HEARING OFFICER KRAMER: Did the applicant have  
14 any questions for staff?

15 MS. FOLEY GANNON: We do not.

16 HEARING OFFICER KRAMER: Okay. And I think that  
17 exhausts everyone.

18 Well, in more ways than one.

19 Then, Mr. Basofin, your witness. And then we'll  
20 have Mr. Cashen. And then I think that will take care of  
21 everyone, if I have it correct.

22 Whereupon,

23 JEFF AARDAHL

24 was previously sworn and testified as follows:

25 DIRECT EXAMINATION

1 MR. BASOFIN: Good morning, Mr. Aardahl.

2 MR. AARDAHL: Good morning.

3 MR. BASOFIN: Thank you so much for bearing with  
4 us.

5 I just have a few -- I think just actually two  
6 direct examination questions for Mr. Aardahl, and then I  
7 will make him available for cross-examination should there  
8 be any.

9 Mr. Aardahl, did you prepare testimony for this  
10 proceeding?

11 MR. AARDAHL: Yes, I did.

12 MR. BASOFIN: And do you have a true and correct  
13 copy of that testimony?

14 MR. AARDAHL: Yes, I do.

15 MR. BASOFIN: And do you have any changes at this  
16 time to your testimony?

17 MR. AARDAHL: Not at this time.

18 MR. BASOFIN: Okay. Can you describe your  
19 assessments of the potential impacts to Desert Tortoise  
20 north-south movement from the applicant's new project  
21 scenarios?

22 MR. AARDAHL: I don't think that there's really  
23 any change due to the reduction of the size of the project  
24 as revealed in those various scenarios. I think the  
25 north-south movement -- or the potential for curtailing

1 those movements across the project site continue. And in  
2 the absence of any more detailed study of wildlife  
3 movements in the habitat connectivity under the railroad  
4 and under I-40, I think the information base needed to  
5 make a judgment on that is really lacking at this point.

6 MR. BASOFIN: Okay. And the same question for  
7 Bighorn Sheep and north-south movement. Can you describe  
8 your assessment and your testimony of the potential  
9 impacts to that movement corridor from the new project  
10 scenarios?

11 MR. AARDAHL: Sure. The movements of Bighorn  
12 typically involve male animals seeking new territory. And  
13 they typically cross valleys to get to other suitable  
14 mountainous habitat.

15 The Epps study that's been discussed tonight made  
16 the assumption that I-40 was a barrier through Bighorn  
17 movement. However, we know that there are a number of  
18 culverts there. And when I was in the field with John  
19 Weyhausen I asked him, regarding the Epps study that he  
20 was participating in, if they had looked at I-40  
21 physically to see if there were any potential culverts or  
22 bridges that could accommodate a Bighorn. And I think, if  
23 I recall correctly, the answer was, no, there was just the  
24 assumption made that it was a barrier.

25 So with that in mind and considering the -- not

1 only the ram skeleton that we found there, and the other  
2 three bighorn remains were horn sheaths of a male animal  
3 -and all of those four locations were provided to us by  
4 the applicant.

5           So all of the evidence points to rams using that  
6 slope. We did not find any remains or any sign of ewes on  
7 that project area.

8           So I'm very curious too about the true nature of  
9 that sheep scat that was reported I think on the day the  
10 sheets that Mr. Cashen referred to. And I also noted in  
11 the testimony that there is no domestic livestock grazing  
12 in that area. So I think the idea that that was some  
13 domestic sheep or cattle really needs to be re-examined.

14           MR. BASOFIN: Thank you.

15           And this is just a quick final question. Can you  
16 discuss the relevance of the Palen study that you  
17 referenced in your testimony?

18           MR. AARDAHL: The Palen study was requested by  
19 the BLM over a concern about the Palen project cutting off  
20 movements of wildlife under Interstate 10 in both  
21 directions, north and south.

22           On one side of I-10, on the south, is a Desert  
23 Tortoise recovery area, or a DWMA. On the north side  
24 there is no DWMA there.

25           But the concern over connectivity to the north

1 and the south was addressed through a wildlife movement  
2 study. BLM specifically asked for data on all classes of  
3 wildlife being able to move under the I-10 freeway. They  
4 wanted measurements of all of the culverts and the bridges  
5 and any sign of wildlife movement that was detected in the  
6 form of scat, tracks or actual sightings of animals. And  
7 the distance involved in that study was I believe  
8 approximately 30 to 35 miles of Interstate 10.

9 MR. BASOFIN: And were there similar species  
10 involved in that study as they Calico project?

11 MR. AARDAHL: They specifically wanted -- or the  
12 BLM wanted information on large mammals, reptiles, small  
13 mammals. And in that area, I think they were probably  
14 looking for specifically Desert Tortoises all the way up  
15 to and including Bighorn and Mule Deer.

16 MR. BASOFIN: Thank you, Mr. Aardahl.

17 The witness is available for cross-examination.

18 HEARING OFFICER KRAMER: Applicant?

19 MS. FOLEY GANNON: No questions.

20 HEARING OFFICER KRAMER: Staff?

21 STAFF COUNSEL ADAMS: No questions.

22 HEARING OFFICER KRAMER: Any other party?

23 Okay. Ms. Miles.

24 MS. MILES: Mr. Cashen, he has been previously  
25 sworn. I assume that that's still valid.

1 HEARING OFFICER KRAMER: Yes.

2 Whereupon,

3 SCOTT CASHEN

4 was previously sworn and testified as follows:

5 DIRECT EXAMINATION

6 MS. MILES: And whose testimony are you  
7 sponsoring today?

8 MR. CASHEN: My own.

9 MS. MILES: And also we submitted exhibits that I  
10 imagine we're going to go through at the end of tonight.

11 Do you have any changes to your sworn testimony?

12 MR. CASHEN: No.

13 MS. MILES: And your opinions and your testimony  
14 are your own?

15 MR. CASHEN: Yes.

16 MS. MILES: Do you have any comments about the  
17 testimony you've heard tonight that you would like to  
18 share?

19 MR. CASHEN: I do. And I will go through these  
20 as quickly as possible.

21 The Supplemental Staff Assessment appears to  
22 assume that there's a linear relationship between a  
23 reduced project and the reduced impact to biological  
24 resources. And that's not necessarily true. In fact,  
25 there are very few linear relationships in ecological

1 systems.

2           And as an example, Golden Eagles -- there's been  
3 research on Golden Eagles. Golden Eagles are known to  
4 avoid disturbance. So it doesn't really matter if you  
5 have an 8,000-acre project or a 6,000 or a 4,000. They're  
6 going to avoid that area.

7           And so those kinds of things need to -- we're not  
8 considered, in my opinion, adequately in the Supplemental  
9 Staff Assessment addendum.

10           Dr. Mock provided some testimony that edge  
11 effects would be less. But yet there has been no  
12 testimony or analysis from the applicant on what the  
13 actual edge effects are. You can't say that edge effects  
14 are less unless you specify what the effect is. You can  
15 say there's going to be less edge. But you can't  
16 necessarily say that there's going to be less edge  
17 effects.

18           And I was just trying to think of an example of  
19 that in my head. And one example might be the edge  
20 between the project and the highway. And if the edge  
21 effect is risk of fire from somebody throwing their  
22 cigarette out the window, that edge effect is exactly the  
23 same.

24           Whereas, I would agree that there are other edge  
25 effects that would be less. But there has not been any



1 analysis of how those edge effects would be reduced.

2 Dr. Mock also talked about modeling scenarios  
3 showing movement of Bighorn Sheep east of the project area  
4 and open areas on the side of the project. I want to just  
5 remind everyone that the cumulative impacts map shows that  
6 that's going to be full of projects. So that would not be  
7 a viable corridor.

8 There was some concern about -- well, there was a  
9 question about the scat that was reported on the Desert  
10 Tortoise survey sheet. It's the Bighorn Sheep scat. And  
11 the testimony was that they spoke with the crew leader,  
12 and that he was a mammalogist and he had concluded that  
13 this was domestic sheep scat.

14 Maybe. I find it hard to believe that a  
15 mammalogist, number one, would not be able to distinguish  
16 between domestic sheep scat and Bighorn scat, or maybe he  
17 could or maybe we couldn't, but that he would write on the  
18 data sheet, knowing that Bighorn Sheep were an issue for  
19 this project, sheep scat.

20 And then we've heard testimony from Mr. Otahal  
21 that there's no domestic sheep grazing out there.

22 I also considered that in conjunction with  
23 several other things that I saw on the data sheet. For  
24 example, on Mojave Fringe-toed Lizard, several burrowing  
25 owl pellets, and active owl burrows that were also not

1 ever mapped or discussed by the applicant. And so  
2 cumulatively that makes me very skeptical.

3 I hate to keep going back to these issues of  
4 habitat quality and numbers. But I did hear you,  
5 Commissioner Eggert, say earlier this evening -- or this  
6 morning that in the minds of the Commission you were  
7 satisfied that the analysis had been done. And I recall  
8 that the applicant's analysis for biological resources  
9 consisted almost entirely of just the numbers and the  
10 habitat quality. So I do feel like it's relevant, and I'm  
11 just going to briefly go through some of the things we  
12 heard tonight.

13 Ms. Miller said that the habitat quality was  
14 distinguished in the field by their leads. And I'll just  
15 point out that there were approximately 10 leads of these  
16 30 or so biologists that were involved in these survey  
17 efforts.

18 So you have a subjective opinion being made by 10  
19 different people. At least that's what we've been led to  
20 believe. So you have a subjective error that's being  
21 complicated, an interaction effect of personal bias times  
22 10.

23 By definition, a qualitative assessment is  
24 subjective.

25 And we've heard testimony previously from

1 Ashleigh Blackford of the Fish & Wildlife Service that  
2 she's gone out in the field with something to the effect  
3 of very experienced people and they think it's high  
4 quality habitat and they don't find any tortoises and they  
5 think it's low quality habitat and they find lots of  
6 tortoises. And there's lots of examples of that. And  
7 there was even -- just briefly, there's a statement that  
8 was made in the West Mojave Plan about Desert Tortoises.  
9 It says, "In an attempt to quantify the relationship  
10 tortoise abundance and habitat characteristics,  
11 Weinstein" -- and it gives the years -- "found habitat to  
12 be difficult and complex to characterize with any  
13 accuracy. The model was quite poor at classifying into  
14 correct density categories data that were not used in  
15 developing the model."

16 So this is widely reported that it's very hard to  
17 distinguish habitat quality. And yet there was not even  
18 really any concentrated attempt to substantiate what was  
19 done. And as a matter of fact, we've been getting just so  
20 much conflicting information about what was done. First  
21 it was a model, a desktop model, then it wasn't a desktop  
22 model. Anyway.

23 There was some testimony about soils. And I just  
24 will say that this is not consistent with what is in the  
25 data sheets. And I think Mr. Ritchie was trying to get at

1 it. On the data sheets there's several very, very general  
2 categories for soil type. And I looked at the burrows  
3 that were -- or, sorry -- the tortoises that were detected  
4 sort of in the very southern end in that area that would  
5 still remain within these scenarios. And so three of  
6 those were categorized as having sandy loam soil, as well  
7 as Desert Tortoises number 23, 28, 33, 42, 43, 44, 46, 75,  
8 80, and 93.

9           And if you want to look at the map, you can look  
10 at the map. But you can see that this so-called  
11 relationship, it might exist, but there's been absolutely  
12 no documentation. And as I've talked about earlier  
13 tonight, the soils is beyond -- for Desert Tortoise  
14 requires consideration beyond what's under your shoes. It  
15 requires an examination of what's diggable, what would  
16 hold up as a burrow. And that could be very different  
17 once you get down into the A and B horizon of the soil.

18           The soils map that was provided by the applicant  
19 shows the majority of this project site having one soil  
20 type.

21           There was testimony that what had been observed  
22 in 2010 was consistent with what was observed in  
23 2007-2008. That's not what's reflected on the map that  
24 was provided in applicant's biological assessment.

25           And just briefly I'll refer you to Figure 8, and

1 it looks something like this. And this big red chunk that  
2 goes all the way down to the railroad is listed as  
3 concentration of tortoise or tortoise sign.

4 HEARING OFFICER KRAMER: Which document is that  
5 again?

6 MR. RITCHIE: Exhibit 93.

7 HEARING OFFICER KRAMER: A relocation plan?  
8 Okay.

9 MR. CASHEN: Yeah, I mean it's in there. It's  
10 actually the biological assessment that was included as an  
11 appendix to it. So I think that probably is the same  
12 exhibit. This was also in the AFC.

13 There was some testimony -- there's been a couple  
14 people who've testified about this Epps, et al. article  
15 and Bighorn Sheep and what it means for movement and  
16 connectivity, and how that may change with these new  
17 scenarios.

18 And I'll just say that one of the authors of that  
19 papers provided testimony in Barstow. And he said that  
20 the conclusion that was trying to be suggested by the  
21 applicant was not the conclusion of the paper. And I'll  
22 just briefly say that I've quickly looked at this paper  
23 again, and it said that this model is limited because it  
24 reflects potential gene flow rather than colonization of  
25 empty habitat patches.

1           And there's some more that I was going to read  
2 but I'll just skip. But you can refer to the article if  
3 you'd like to confirm what it actually says.

4           Finally, we've gotten some new information  
5 tonight that I was very surprised to hear, particularly  
6 from the BLM. We've heard some things that drastically  
7 change my opinion of the impacts of this project on Desert  
8 Tortoises in particular, and the analysis that would need  
9 to go into assessing what the impacts are going to be.  
10 And I don't -- I guess I'll just leave it at that.

11           MS. MILES: Okay. And I wanted to ask you, Mr.  
12 Cashen, have you reviewed the Supplemental Staff  
13 Assessment? And I think it's pretty obvious that you  
14 have. But can you go ahead and confirm that on the  
15 record.

16           MR. CASHEN: Yes, I have reviewed it. It's been  
17 almost impossible for me to adequately assess the content  
18 of it.

19           MS. MILES: And that's because it came out on  
20 Friday at about 5 p.m. and today is Monday, is that  
21 correct?

22           MR. CASHEN: That's correct. And it's also  
23 because -- it's also because the applicant had provided  
24 testimony last week - I believe their testimony was  
25 submitted on Monday - and in that testimony it said that

1 "We would be happy to provide anyone with copies of this  
2 these data files upon request."

3 And those requests were made, and the applicant  
4 did not provide those data until after close of business  
5 on Thursday evening, and then provided additional  
6 information midday Friday.

7 And so the combination of that late data and the  
8 late issuance of the S SSA has made it almost impossible  
9 for me to review and assess these sources of information.

10 MS. MILES: In light of that, do you have any  
11 preliminary comments on the Supplemental Staff Assessment  
12 addendum, since you didn't have a chance -- an opportunity  
13 to submit written comments on that document?

14 MR. CASHEN: Yeah, I'll just say that I've so far  
15 been able to identify numerous errors and inaccuracies in  
16 that document. And I'll just briefly mention a few.

17 I've already talked about the errors that I think  
18 have been made in estimating population of Desert  
19 Tortoises. And that's important, because this is how many  
20 tortoises are going to require -- are going to need to be  
21 translocated. And this has a big trickledown effect.

22 I don't think it's been fully fleshed out what  
23 change in the translocation area means. And as I  
24 mentioned earlier, as of last Friday tortoises were being  
25 moved to the Ord-Rodman DWMA. And this S SSA came out and

1 said all of a sudden now they're being moved north of the  
2 project. Yet there was no analysis to support that that  
3 area would be suitable for tortoises.

4           And having adequate density has been something  
5 that has been highlighted by virtually all the parties in  
6 this proceeding. And yet those densities weren't  
7 provided. So I calculated the densities. And I  
8 calculated it based on the numbers provided by the  
9 applicant. And I calculated a density of 13 tortoises --  
10 or approximately 13. It was 12.9 and 13.1, depending on  
11 the scenario. It's 13 tortoises per square kilometer in  
12 the area that would be avoided.

13           And the guideline that has been issued is that  
14 density should not exceed 130 percent of the average -- or  
15 of the baseline level for the nearest critical habitat  
16 unit, which happens to be 5.8. So 130 percent of 5.8.  
17 Thirteen is much greater than that. And that has very big  
18 implications on whether these areas are going to be able  
19 to handle -- we're looking at over 200 percent of what is  
20 the estimated density level.

21           Staff's changed its conclusion on the  
22 cumulative -- on the significance of the cumulative impact  
23 on Mojave Fringe-toed Lizard even though there was, in my  
24 opinion, virtually no analysis to support that change.  
25 And I believe that we've talked about that some tonight,



1 so I'll skip over that -- my reasoning for that.

2           There's still vague information on whether  
3 detention basins are going to be constructed or not. And  
4 in my opinion it appears that the timeline associated with  
5 many of the verification measures would be impossible to  
6 meet.

7           MS. MILES: And regarding translocation or  
8 relocation of Desert Tortoises that might need to occur  
9 this year for the project to receive ARRA funding, in your  
10 opinion are you concerned that the movement of tortoises  
11 this year might result in unnecessary impact or mortality  
12 to Desert Tortoise?

13           MR. CASHEN: Yeah, I don't -- I don't see how  
14 it's going to happen. Desert tortoises can begin  
15 hibernating as early as the end of August. And there's a  
16 research study conducted by Nasser, et al., I submitted as  
17 one of the exhibits to my most recent testimony. And the  
18 researcher studied when tortoises went into hibernation,  
19 what the factors were that triggered going into  
20 hibernation, and then variables such as how long they  
21 spent and did all the tortoises come out on the same day  
22 or what was the spread in which tortoises came out.

23           And that research indicated that the 25th  
24 percentile of a population went into hibernation at  
25 approximately October 15th. Meaning if you have a

1 population of a hundred, approximately 25 of them will be  
2 in hibernation by October 15th.

3           And one of the most significant conclusions of  
4 this research was that the timing of hibernation was not  
5 statistically -- the relationship between timing and  
6 weather was not statistically significant. In other  
7 words, the conclusions that, oh, it depends on how cold it  
8 is is not valid. This is something that is intrinsic in  
9 the tortoises and that is yet to be determined, but that  
10 it is independent of weather.

11           There's also been guidance issued from the Fish &  
12 Wildlife Service on translocation that was recently  
13 published. And that guidance says that translocations  
14 should occur in the spring, but fall translocations from  
15 September 1st through October 15th may be considered.

16           I don't -- I just don't see how this is going to  
17 happen by October 15th. And this isn't something that you  
18 can just shine the flashlight down the burrow and you see,  
19 oh, there's a tortoise hibernating. Winter burrows for  
20 Desert Tortoises are generally quite different from the  
21 burrows that they use during the summertime. And winter  
22 burrows can be characterized as being relatively deep and  
23 typically convoluted, meaning they'll have a turn in them.

24           And so the risk here is going out and saying, "We  
25 didn't find any tortoises in our Phase 1A area. And so

1 therefore we're good to go and we don't need to  
2 translocate." But yet how will they know that the  
3 tortoises just haven't gone into their winter burrows?  
4 You can't necessarily look down the burrows and see that  
5 there's a tortoise in their hibernating.

6 And this is something that just hasn't been  
7 addressed at all. And I haven't seen anything that would  
8 suggest that the take of hibernating burrows is going to  
9 be avoided.

10 MS. MILES: Hibernating tortoises?

11 MR. CASHEN: Yeah. Did I -- I said hibernating  
12 burrows.

13 MS. MILES: And then my final question is related  
14 to if you'd like to provide your opinion on what the  
15 impacts are specifically to Desert Tortoise for scenarios  
16 5.5 and 6.

17 MR. CASHEN: Yeah. And I think this is what  
18 everybody's sort of really interested in.

19 And the Desert Tortoise is a long-lived species,  
20 with extremely large habitat requirements. It's an  
21 organism that adapts to changes in its desert environment.  
22 And the information that has been presented by the  
23 applicant is really just a snapshot of what occurred in  
24 spring of 2010.

25 And if we're going to have any chance of

1 recovering this species, which is declining across its  
2 range, we're going to have to look at the big picture  
3 issues here. And the big picture issues have been  
4 addressed by many researchers and throughout virtually  
5 every conservation plan that I reviewed.

6           Just as an example, the Recovery Plan Assessment  
7 says three kinds of habitat degradation are centrally  
8 important to Desert Tortoise conservation and tortoise  
9 population decline - habitat fragmentation, habitat loss,  
10 habitat degeneration.

11           The West Mojave Plan says greatest threats to  
12 tortoise populations in the West Mojave Plan area are  
13 probability disease, cumulative effects of habitat loss,  
14 degradation and fragmentation from construction,  
15 urbanization and development, and a high level of human  
16 access to tortoise habitat. So those are just a couple  
17 examples.

18           And just briefly, what do these new scenarios  
19 mean in relation to these things which have been listed as  
20 the primary concerns and threats to Desert Tortoise  
21 populations? Well, for disease we don't have hardly any  
22 information yet from the applicant on how translocation  
23 will affect tortoises and disease transmission, but it's  
24 unlikely to affect the problems associated with disease,  
25 habitat loss.

1           This is still a massive project. Under either  
2 scenario this would be one of the largest solar projects  
3 currently proposed for California and its Desert Tortoises  
4 habitat. And we can argue all we want about whether it's  
5 low, medium, or high. This is occupied Desert Tortoise  
6 habitat that has a very important function in the recovery  
7 of this organism. It's the wrong spot.

8           Habitat fragmentation. This is going -- the  
9 project would have a major fragmenting effect on  
10 landscape. It's been identified as an essential  
11 connectivity area. Both scenarios would still have major  
12 impacts on that essential connectivity area.

13           And if Desert Tortoises are going to have a  
14 chance of adapting to climate change, there has to be  
15 connectivity. And this is an essential connectivity area.

16           During the previous hearings I testified about  
17 the value of a healthy reproducing population. And  
18 whereas it is true that it appears that these scenarios  
19 would avoid many Desert Tortoises, I am confident in  
20 stating that a healthy reproducing tortoise population  
21 will not be maintained over the long term because of  
22 habitat degradation associated with this project if it is  
23 approved. And there's a lot of scientific literature to  
24 support that very conclusion.

25           MS. MILES: Thank you, Mr. Cashen. And thank you

1 for staying so late.

2 I have no further questions.

3 HEARING OFFICER KRAMER: Cross-examination from  
4 the applicant?

5 MS. FOLEY GANNON: No questions. Thank you.

6 HEARING OFFICER KRAMER: Staff?

7 STAFF COUNSEL ADAMS: No questions.

8 HEARING OFFICER KRAMER: Other intervenors?

9 Okay. Thank you.

10 Does anybody disagree that we've exhausted our  
11 testimony now, opportunities for the evening and the  
12 morning?

13 Okay. That brings us to exhibits. So we need to  
14 close the record and update the exhibits list. So what I  
15 have -- I guess I'm just going to have to read.

16 Let me begin with the applicant. Prior to today  
17 we had you at Exhibit -- I think 113 was your last.

18 MS. FOLEY GANNON: That's right.

19 HEARING OFFICER KRAMER: And you've since added  
20 114, which was Ms. Bellows' declaration and attachments.

21 And all the documents I'm going to read were all  
22 dated September 13th of 2010.

23 And 115 is the declaration of Dr. Mock.

24 116, a declaration of a re' Miller.

25 117, Howard Chang -- Dr. Howard Chang.

1 118, Robert Byall.

2 119, Matt Moore.

3 120, Rachel Nixon.

4 121, Noel Casil.

5 122, Matt Dadswell.

6 123 Michael Hatch.

7 124, Tariq Hussain.

8 125, Angela Leiba.

9 126, Julie Mitchell.

10 127, Joe Stewart,

11 And 128, Mark Storm.

12 Then we have the matter of the handouts we  
13 started talking about today -- yesterday. I can ask, were  
14 these scenarios included with any other testimony we've  
15 identified?

16 I'm talking about the first of two maps, Scenario  
17 5.5. It's called "Fence Timing for Phase 1A, with Desert  
18 Tortoise sightings"

19 And then there is a similar document for Scenario  
20 6.

21 MS. FOLEY GANNON: Yeah, I'm trying to confirm.  
22 Just one moment.

23 5.5 and 6. Yes, they're in the attachments to  
24 Ms. Bellows' testimony. They're Attachment A.

25 HEARING OFFICER KRAMER: Okay. These very same

1 maps?

2 MS. FOLEY GANNON: Yes.

3 HEARING OFFICER KRAMER: Okay.

4 MS. FOLEY GANNON: So Attachment A to Exhibit  
5 114.

6 HEARING OFFICER KRAMER: Okay. What about the  
7 map that you passed out later that showed -- it wasn't  
8 colored the same and it showed the 5.5 scenario and it had  
9 Desert Tortoise sitings in burrows from 2007 to February  
10 of 2010.

11 MS. FOLEY GANNON: That was docketed, but it's  
12 not included as part of the testimony. So we should  
13 probably assign an exhibit number to that.

14 HEARING OFFICER KRAMER: Okay. This one would be  
15 Exhibit 129.

16 MR. RITCHIE: And for clarity, that was the 2007  
17 report that we discussed that I was -- that Sierra Club  
18 was referencing.

19 HEARING OFFICER KRAMER: It was just a map like  
20 so?

21 MS. FOLEY GANNON: It's called Scenario 5.5,  
22 Tortoise Sightings and Burrows, 2007 to February 2010,  
23 Calico Solar. Figure No. 1 is what it says in the corner.

24 MR. RITCHIE: Thank you.

25 HEARING OFFICER KRAMER: Okay. Is there any



1 objection to accepting those documents into evidence?

2 Hearing none.

3 (Thereupon Exhibits 113-118 were received.)

4 HEARING OFFICER KRAMER: Let's move on to staff's  
5 documents.

6 I think, and as far as I know, Mr. Adams, you  
7 just had the Supplemental Staff Assessment addendum?

8 STAFF COUNSEL ADAMS: That's correct.

9 HEARING OFFICER KRAMER: Okay. And the next  
10 number I had for that was 317.

11 STAFF COUNSEL ADAMS: I think that's right as  
12 well.

13 HEARING OFFICER KRAMER: Okay. Any objection to  
14 accepting that into evidence?

15 Hearing none.

16 That's in.

17 (Thereupon Exhibit 317 was received.)

18 HEARING OFFICER KRAMER: And we have a series of  
19 documents from CURE. And those were actually contained in  
20 an updated list of exhibits.

21 MS. MILES: That's correct. That was sent on  
22 Friday, September 17th. And it's Exhibits 461 through  
23 465.

24 461 was the testimony of Scott Cashen.

25 462, 3, and 4 were his exhibits.

1           And 465 is the testimony of David Whitley.

2           HEARING OFFICER KRAMER:   And then those up  
3 through 460 were submitted at the last set of hearings;  
4 isn't that right?

5           MS. MILES:   That's correct.

6           HEARING OFFICER KRAMER:   Okay.  I have to catch  
7 up with those.

8           Okay.  Any objection to accepting Exhibits 461  
9 through 465?

10          MS. FOLEY GANNON:   No objection.

11          Hearing none, those are accepted.

12          (Thereupon Exhibits 461-465 were received.)

13          HEARING OFFICER KRAMER:   Next would be Defenders.

14          Mr. Basofin, I think you did not put a number on  
15 Mr. Aardahl's testimony; is that correct?

16          MR. BASOFIN:   That's right, I did forget to put a  
17 number on his testimony.  So I marked 616 through 619.  So  
18 we can mark Ms. Aardahl's testimony as 620.

19          HEARING OFFICER KRAMER:   Okay.  So going back to  
20 616, that's the Palen --

21          MR. BASOFIN:   616 is the Palen study.

22          617 and 18 are two photographs of culverts.

23          619 is the ram photograph

24          HEARING OFFICER KRAMER:   And 620 is Mr. Aardahl's  
25 testimony.

1 MR. BASOFIN: 620 is the testimony.

2 HEARING OFFICER KRAMER: Any objection to  
3 receiving those into evidence?

4 Seeing none.

5 (Thereupon Exhibits 616-620 were received.)

6 HEARING OFFICER KRAMER: Basin Range Watch. I  
7 don't think they were with us at all today.

8 Does anybody recall receiving any new testimony  
9 from them? I was looking through my Email stack and I  
10 didn't see anything.

11 Okay. So nothing from them.

12 Sierra Club.

13 Okay. You had a few new exhibits.

14 MR. RITCHIE: We did. We started with Exhibit  
15 No. 1021. And that was the BLM letter dated April 8th,  
16 2008, to Todd Stewart of Bright Source Energy. And that  
17 was discussing revised stormwater design plans.

18 HEARING OFFICER KRAMER: Okay. And then 1022 I  
19 have as a Live Tortoise and Counter form dated April 4,  
20 2010.

21 MR. RITCHIE: It's actually -- that exhibit was  
22 intended to be both data forms.

23 HEARING OFFICER KRAMER: Right. And then the  
24 second form I also have here is URS Corporation, Calico  
25 Solar, 2010 Desert Tortoise Protocol Transect Survey dated

1 March 30, 2010.

2           And then 1023 is -- I just pulled the title off  
3 the top of it -- the Calico Solar Tortoise Burrow Data.

4           Did it have a date, do you know?

5           MR. RITCHIE: I believe that was included with  
6 the May 18th, 2010, Desert Tortoise survey results.

7           HEARING OFFICER KRAMER: Do you think the date's  
8 on there? Well, I'll look later and see if there's a date  
9 on the document.

10           If it's not on the document, then it just won't  
11 help to correlate.

12           MR. RITCHIE: I don't think it was on the  
13 document.

14           HEARING OFFICER KRAMER: Okay. Any objection to  
15 accepting those three documents into evidence?

16           Seeing none.

17           They are accepted.

18           (Thereupon Exhibits 1021-1023 were received.)

19           HEARING OFFICER KRAMER: We did not have a visit  
20 from the Community Services District.

21           From Burlington Northern we had 1211, which was  
22 the direct testimony of Douglas Hamilton, which contained  
23 seven attachments labeled as exhibits 1 through 7. That's  
24 1211.

25           1212 was the prepared direct testimony of Steven

1 Metro.

2 1213 was the testimony of David Miller.

3 And 1214 was a document to be sent to us  
4 tomorrow. It was a map of individual SunCatcher locations  
5 imposed on a terrain map showing the washes.

6 And do I correctly recall that that was prepared  
7 by Mr. Metro?

8 MR. LAMB: Correct.

9 HEARING OFFICER KRAMER: Okay. Any objection to  
10 receiving those four documents into evidence?

11 Seeing none.

12 (Thereupon Exhibits 1211-1214 were received.)

13 HEARING OFFICER KRAMER: Okay. So that is the  
14 extent of the evidence.

15 Let me ask if there are any members of the public  
16 who are still here.

17 (Laughter.)

18 HEARING OFFICER KRAMER: Seeing none.

19 Let me just pause for a second and consult with  
20 Commission Eggert. And we will announce where we go from  
21 here.

22 Yes, we are going to try to produce a decision as  
23 soon as we can. And in anticipation of that, mark your  
24 calendars for the possibility of a Committee PMPD comment  
25 hearing on Monday, October 18th. And we'll be asking the

1 parties, especially the staff and the applicant but also  
2 others who are going to be proposing changes to  
3 conditions, to submit those in advance and circulate those  
4 in advance of that meeting so that we have something to  
5 discuss, and perhaps you, among yourselves, or with us to  
6 negotiate. Because, again, we found it's a lot better to  
7 try to work out the final details of condition changes,  
8 you know, in a face-to-face dialogue sort of process.

9 MR. RITCHIE: Sorry, Mr. Kramer. I missed that  
10 date. Could you --

11 HEARING OFFICER KRAMER: Monday, October -- see,  
12 that was my wake-up alarm for this morning.

13 (Laughter.)

14 HEARING OFFICER KRAMER: Should I just snooze it  
15 or dismiss it?

16 This is going to be a transcript to just frame, I  
17 think.

18 Okay. So October 18th.

19 And then if all goes -- the earliest possible  
20 time that this could be going to the Commission would be  
21 the week of the 25th of October. Probably not the Monday,  
22 but maybe as early as the Tuesday or the Wednesday of that  
23 week, if -- that's the right week, isn't it?

24 Yeah. Okay.

25 So when a PMPD goes out, among other things it

1 will have a notice of the business meeting date.

2           The other thing to note not so much for this  
3 group but for the record is that we will be specifying  
4 that public comments -- well, all comments, so it may  
5 affect you if you want to be a last-minute person. I  
6 think in the past it's been ambiguous about whether you  
7 simply had to get your document in the mail by the  
8 deadline. But we are going to make it clear that it has  
9 to be in our possession either via an Email or delivered  
10 actually on paper by the Post Office by the close of  
11 business on whatever the last day of the comment period is  
12 going to be.

13           So you'll plan -- plan your efforts accordingly.

14           And I think that's all I need to say for the  
15 moment.

16           Commissioner Eggert.

17           PRESIDING MEMBER EGGERT: Yeah, just a very brief  
18 comment.

19           I just want to thank you, Mr. Kramer, for running  
20 this marathon hearing.

21           I guess maybe just a bit further perspective. I  
22 mean I think we're -- if you think about the time that's  
23 been put into this case both by the applicant, the CEC  
24 staff, and all of the intervenors, it's got to run into  
25 the thousands of hours, if not upwards of well over maybe

1 even 10,000, dare I say. Certainly over 10,000 pages of  
2 material that's been submitted for the purposes of  
3 evaluating all the associated impacts and mitigations.

4 So I think for me as the presiding member,  
5 spending the last 15 hours hearing the evidence in this  
6 final evidentiary hearing has been well worth the time.  
7 And I appreciate everybody's patience and participation  
8 and staying to this very late hour.

9 But, again, I'll just sort of restate what I said  
10 at the last evidentiary hearing, is that the Committee  
11 will take all of this evidence and all this testimony into  
12 consideration as it prepares its PMPD, and we will do so  
13 as quickly as humanly possible, but to make sure that  
14 we're following all of the proper process and procedure.

15 And, again, just thanks to all parties for your  
16 patience and participation. So thank you. And good  
17 night.

18 I have an 8 o'clock meeting. I'm trying to  
19 decide, you know, do I just go see if I have a change of  
20 clothes in my office.

21 Actually maybe I should take this off the record.

22 Okay. With that, we're going to go off the  
23 record. And good night. 04:19 AM

24 (Thereupon the Energy Resources meeting  
25 adjourned at 4:19 a.m.)



CERTIFICATE OF REPORTER

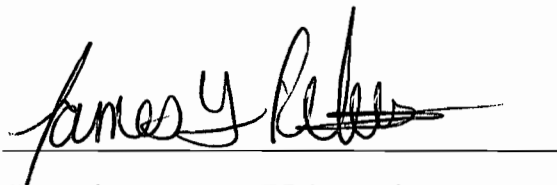
I, JAMES F. PETERS, a Certified Shorthand Reporter of the State of California, and Registered Professional Reporter, do hereby certify:

That I am a disinterested person herein; that the foregoing California Energy Resources, Conservation and Development Commission meeting was reported in shorthand by me, James F. Peters, a Certified Shorthand Reporter of the State of California.

That the said proceedings was taken before me, in shorthand writing, and was thereafter transcribed, under my direction, by computer-assisted transcription.

I further certify that I am not of counsel or attorney for any of the parties to said meeting nor in any way interested in the outcome of said meeting.

IN WITNESS WHEREOF, I have hereunto set my hand this 22nd day of September, 2010.



JAMES F. PETERS, CSR, RPR  
Certified Shorthand Reporter  
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